



TRANSACTIONS
OF THE
WOOLHOPE
NATURALISTS' FIELD CLUB,
HEREFORDSHIRE.

[ESTABLISHED 1851.]

VOLUME XXXIV.
1952, 1953 and 1954.

"HOPE ON"



"HOPE EVER"



HEREFORD :
PRINTED BY THE HEREFORD TIMES LTD.

ISSUED 1955

TRANSACTIONS FOR THE YEARS 1952-1953-1954

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 Greenly, Maj.-Gen. W. H., Titley Court, Herefordshire.
 Griffith, A. H., Overdale, Three Elms, Hereford.
 Griffiths, John W. B., Birtley House, Birtley, Bucknell, Salop.
 Grigg, Donald, Police Station, Ross-on-Wye.
 Gwillim, A. Ll., Hagley Cottage, Bartestree, Hereford.

Hadfield, P. G. H., Bull's Grove, Putley, Ledbury.
 Haines, Reginald Frederick, Hilton, Canon Pyon Road, Hereford.
 Hall, Harold, Brampton, 18, Whitehorse Street, Hereford.
 Halson, G., Yew Tree Cottage, Woolhope, Hereford.
 Hammonds, G. T. H., Fownhope Cottage, Fownhope, Hereford.
 Harding, C. J., 67, Edgar Street, Hereford.
 Harris, H. J., 70, Old Eign Hill, Hereford.
 Harris, L., 51, Bodenham Road, Hereford.
 Harris, L. A. K., 56, Beattie Avenue, Hereford.
 Harrison, W. D., Barr's Court, Tarrington, Hereford.
 Heath, A. F., Putley, Ledbury.
 Heath, Mrs. A. E., Putley, Ledbury.
 Hereford County Library, Widemarsh Street, Hereford.
 Herefordshire Archaeological Society.
 Herefordshire Botanical Society.
 Herefordshire Ornithological Club.
 Higgins, T. H., Glaslyn, 2, Prince Edward Road, Broomy Hill, Hereford.
 Higham, V., Moorside, Much Birch, Hereford.
 Hill, Rev. H. W., Prestbury Vicarage, Cheltenham.
 Hill, W. R., West View, Ledbury.

Hinde, P. W., The School, Lucton, Leominster.
Hocking, F. T., 1, Bullingham Lane, Hereford.
Hopewell, A. F. J., Cathedral School, Hereford.
Hopkinson, Col. S., Llanvihangel Court, Llanvihangel Crucorney, Abergavenny, Mon.

Hoskyns-Abrahall, Sir Chandos, Little Bogmarsh, Holme Lacy, Hereford.
Hoskyns-Abrahall, Lady, Little Bogmarsh, Holme Lacy, Hereford.
Howse, W. H., Broadaxe Corner, Presteigne, Radnor.
Howse, Mrs. W. H., Broadaxe Corner, Presteigne, Radnor.
Hughes, D. J., Wyatt House, Cross Keys, Hereford.
Hutton, Prof. J. H., The Old Rectory, New Radnor.

Inman, S. W., The Halt, King's Acre, Hereford.
Iron, Air Commodore Douglas, The Crown Hotel, Hay-on-Wye.

Jackson, Lt.-Col. E. H. P., Yew Tree House, Wellington, Hereford.
Jackson, J. N., 50, Hawthorn Avenue, Willerby, Near Hull, Yorks.
Jackson, Miss P. M., 148, St. Owen Street, Hereford.
James, D. W., Nittingshill, Port Glasgow Road, Kilmacolm, Renfrewshire.
James, D. W., Glendale, 108, Bullingham Lane, Hereford.
James, E. E., 28, Moor Farm Lane, Hereford.
James, H. D., 245, Ross Road, Hereford.
James, Philip Gwynne, High Croft, Hereford.
Jenner, Col. H. N., Sundial, 9, Southbank Road, Hereford.
Jewell, Charles, The Bungalow, 13, Dinedor Avenue, Hereford.
Johnson, Col. T. W. M., Green Farm, Hallwood Green, Dymock, Glos.
Johnston, Alex., 21, Mount Crescent, Tupsley, Hereford.
Jones, B. A., 41, Eign Road, Hereford.
Jones, Rev. D. Brynmor, 17, Moor Farm Lane, Hereford.
Jones, Rev. D. E., The Rectory, Tedstone Delamere, Bromyard, Hereford.
Jones, Rev. G. P., Little Marcle, Hereford.
Jones, G. S. Averay, Mavis Holt, Hampton Park, Hereford.
Jones, Harold, 24, Widemarsh Street, Hereford.
Jones, J., Dynham Hall, Ludlow.
Jones, Rev. J. T. Vivian, The Vicarage, Orleton, Ludlow.
Jones, Ronald, 100, Queensway, Hereford.
Jones, R. St. John, 18, Widemarsh Street, Hereford.
Jones, W. H., Bankside, Symonds Yat, Ross-on-Wye.
Jordan, Canon J. H., Canon's House, Hereford.

Kemp, John, Cherrington, Ross-on-Wye.
Kemp, Mrs. John, Cherrington, Ross-on-Wye.
Kendrick, F. M., 40, Stanhope Street, Hereford.
Kidderminster Public Library, Kidderminster, Worcs.
King, C. F., 29, Eign Street, Hereford.
King, W. J., The Homestead, Kingsthorpe, Hereford.
King, Mrs. W. J., The Homestead, Kingsthorpe, Hereford.
Kington, A. W., 21, Tennal Grove, Harborne, Birmingham, 3.
Knight, L. A., Trinity House, 12, Baggallay Street, Hereford.

Lane, A. C., Ferndale Road, Hereford.
Lane, H. A., Hill Field, Putley, Ledbury.
Lane, Mrs. H. A., Hill Field, Putley, Ledbury.
Langdale-Smith, Dr. H. G., Tarrington, Hereford.
Langford, Dr. A. W., 5, St. John Street, Hereford.
Langford, Mrs. A. W., 5, St. John Street, Hereford.
Lawson, Rev. J. L., 2, Forrens Court, The Precincts, Canterbury.
Layton, A. W., Aconbury Court, Hereford.
Lee, Miss R., Runasley, Whitney-on-Wye, Hereford.
Leeds, F., Edenhurst, Ross-on-Wye.
Leeds, Mrs. F., Edenhurst, Ross-on-Wye.
Leek, D., c/o Messrs. Hiorns & Miller Ltd., 66, Mutley Plain, Plymouth.

Leicester University College Library, Leicester.
Lennox, Major W. M. P. Kincaid-, Downton Castle, Ludlow.
Levy, Dr. G. B. F., Style House, Withington, Hereford.
Lewis, Rev. G. O., The Vicarage, Tupsley, Hereford.
Lewis, Wm. J., Clifton Villa, 14, Harold Street, Hereford.
Lloyd, D., 114, Ryeland Street, Hereford.
Lloyd, G. H., 8, Park Street, Hereford.
Lloyd, R. W., The Grange, Bampton, Oxford.
Lloyd-Johnes, Herbert, Summerleas, Monmouth.
Lock, C. B., The Garage, Allensmore, Hereford.
Lockett, E., 1, Moorland Avenue, Hereford.
Lockett, Mrs. E., 1, Moorland Avenue, Hereford.
London University, Senate House, London, W.C.1.
Long, H. F., Lynwood, Tower Road, Hereford.
Longworth, The Rt. Rev. T., D.D., Lord Bishop of Hereford, The Palace, Hereford.

Lowe, David A., Glenview, 62, Hafod Road, Hereford.
Lucas, A. V., The Hut, Three Elms, Hereford.
Luffman, Denis, Selborne, 22, Broadleys Crescent, Hereford.

Machin, F. S., The Manor House, Burghill, Hereford.
Maclean, Rev. D. A. L., Pixley Rectory, Ledbury.
Malkin, Dr. G. R., Fownhope, Hereford.
Malson, C. G. W., 10, Mount Crescent, Tupsley, Hereford.
Mann, A. L., Greenbank, 4, Penn Grove Road, Hereford.
Mann, Mrs. A. L., Greenbank, 4, Penn Grove Road, Hereford.
Mappin, W. H., Ynyshir, Glandyfi, Cardiganshire.
Marchant, C. Garnet, Hesselton, 29, Barton Road, Hereford.
Marriott, A. W., Cantilupe House, Cantilupe Street, Hereford.
Marriott, C. L., 23, St. Owen Street, Hereford.
Marriott, F. G., 17, Parkfields, Welwyn Garden City, Herts.
Marriott, Miss G., Cantilupe House, Cantilupe Street, Hereford.
Marriott, N. W., Cantilupe House, Cantilupe Street, Hereford.
Marshall, C., The Manor House, Breinton, Hereford.
Marshall, G. Humphry, The Manor House, Breinton, Hereford.
Marshall, Major Thomas, c/o Lloyds Bank, Leominster.
Marshall, Rev. Wm., The Grange, Sarnesfield, Weobley, Hereford.
Martin, Rev. Canon E. V., 55, Grange Road, Woodthorpe, Nottingham.
Martin, Major G. V., M.C., 55, Grange Road, Woodthorpe, Nottingham.
Martin, Rev. Preb. S. H., 203, Hinton Road, Hereford.
Martin, Mrs. S. H., 203, Hinton Road, Hereford.
Matthews, E. K. W., 4, Folly Lane, Tupsley, Hereford.
Matthews, J. W., Ragleth, 39, King's Acre Road, Hereford.
Matthews, T. A., 6, King Street, Hereford.
Maudesley, Rev. G. M., Canon Pyon Rectory, Hereford.
Mawson, S. W., 129, Grandstand Road, Hereford.
Mellor, J. E. M., Prospect Cottage, Bredwardine, Hereford.
Miller, R. C., 63, Lichfield Avenue, Hereford.
Milligan, T. Vaughan, The Vinery, 28, Southbank Road, Hereford.
Milne, G. D., Terrace Hall, Woolhope, Hereford.
Milne, Leonard, 29, Church Street, Hereford.
Moir, Rev. A. L., Bridstow Vicarage, Ross-on-Wye.
Moir, Mrs. A. L., Bridstow Vicarage, Ross-on-Wye.
Moir, Miss E. A. L., Bridstow Vicarage, Ross-on-Wye.
Moir, Miss P. M. L., Bridstow, Vicarage, Ross-on-Wye.
Money-Kyrle, Rev. C. L., Homme House, Much Marcle, Dymock.
Monkley, R. C., 10, Bridge Street, Hereford.
Morgan, W. E., Wye Valley Motors, St. Martin Street, Hereford.
Morris, A. W., West Wilcroft, Bartestree, Hereford.
Morris, L. G., 34, Ferndale Road, Hereford.
Mumford, Capt. W. C., Sugwas Court, Hereford.

Munnings, F. W., Larport, Mordiford, Hereford.
Murray, J. C., Bank House, Southend, Ledbury.

Newall, Miss M. E., Teachers' Training College, Hereford.
Newman, Eric S., 64, Penn Grove Road, Hereford.
Newman, Mrs. E. S., 64, Penn Grove Road, Hereford.
Newport Public Libraries, Dock Street, Newport, Mon.
Newton, F., Beckingham, 12, Moor Farm Lane, Hereford.
Noble, F., County Secondary School, Ludlow Road, Knighton, Radnor.
Norton, Rev. E. H. P., Almeley Vicarage, Hereford.
Norton, W. J., Mill Farm, Bromfield, Ludlow.

Oakley, Ernest R., Bryngwyn, Much Dewchurch, Hereford.
Oakley, Bro. James, Belmont Abbey, Hereford.
Oakley, J. E. E. E., Old Forge Cottage, Goodrich, Ross-on-Wye.
Ocken, Mrs. A. E. M., 96, Church Road, Tupsley, Hereford.
Owen, Mrs. Meredith, Perton Grange, Stoke Edith, Hereford.

Palmer, Rex, Prospect House, Canon Pyon Road, Hereford.
Parker, L. H., Thornloe, 29, Richmond Road, Malvern Link, Worcs.
Parker, Mrs. L. H., Thornloe, 29, Richmond Road, Malvern Link, Worcs.
Parker, Rev. Preb. T. H., Vineyard Croft, Hampton Park Road, Hereford.
Parr, R. C., The New Weir, Kenchester, Hereford.
Parry, Herbert, The Stowe, Whitney-on-Wye, Hereford.
Parsons, D., Street, House, Madley, Hereford.
Peacock, G. H., 19, Hafod Road, Hereford.
Pemberton, P. F., Rutland Lodge, South Parade, Ledbury.
Pennington, T. W., Old Stowe Inn, Whitney-on-Wye, Hereford.
Pennington, Mrs. T. W., Old Stowe Inn, Whitney-on-Wye, Hereford.
Perry, S. R. W., 145, Holme Lacy Road, Hereford.
Perry, W. T., 23, King Street, Hereford.
Phillips, Miss, Ivy Lodge, Venn's Lane, Hereford.
Phillips, C. H., Sutton Hill, Fownhope, Hereford.
Pickthorn, Chas. H., 5, Wedderburn Road, Harrogate.
Pile, H. E., 2, Hunderton Road, Hereford.
Pile, Mrs. H. E., 2, Hunderton Road, Hereford.
Pitt, S., Churchettes, Whitestone, Hereford.
Polley, Brig. S. T., Mansel Lacy, Hereford.
Poole, F. J., Ufton Court, Holme Lacy, Hereford.
Powell, Rev. Preb. G. H., Winforton, Hereford.
Powell, Herbert J., 338, Upper Ledbury Road, Hereford.
Powell, Hubert J., King's Acre Halt, Hereford.
Powell, H. S., Moor End, Ashperton, Hereford.
Powell, Randal R., Lower Hill Breinton, Hereford.
Praill, A. C., 145, King's Acre Road, Hereford.
Praill, L. J., The Knoll, Tupsley, Hereford.
Price, J. C., St. Mary's, Kingsland, Leominster.
Prichard, H. M., The Roundel, Southwold, Suffolk.
Pritchard, Percy, 194, Ross Road, Hereford.
Prosser, C. T. O., Vineyard Hill, Vineyard Road, Hereford.
Public Record Office Library, Chancery Lane, London, W.C.2.
Pugh, H., The Firs, Southbank Road, Hereford.
Purchas, Rev. A. B., Prenton, Churchdown, Gloucester.
Ravenscroft, C. D., Much Marcle, Ledbury.
Read, Tracey J., Hillcroft, 139, King's Acre Road, Hereford.
Redcliffe, H. W., 35, Mount Crescent, Tupsley, Hereford.
Redmond, Rev. G., Breinton Vicarage, Hereford.
Rennell of Rodd, The Rt. Hon. Lord, The Rodd, Presteigne, Radnor.
Richards, Rev. Ivor J., The Vicarage, Llanarth, Raglan, Mon.
Roberts, C. F. G., Middle Court, Lugwardine, Hereford.
Robinson, R. S. Gavin, Poston House, Peterchurch, Hereford.

Roiser, E. A., 12, Imperial Square, Cheltenham.
Rooke, Rev. H., The Vicarage, Weobley, Hereford.
Ross, J. H., The Mount, Leominster.

Salt, Major A. E. W., Stawne, Weobley, Hereford.
Salt, Mrs. A. E. W., Stawne, Weobley, Hereford.
Sanders, J. G., 142, St. Owen Street, Hereford.
Scudamore, F. H., Haywood Lodge, Belmont, Hereford.
Secretan, S. D., Swayes, Rudgwick, Sussex.
Shaw, R. P., Garway House, Garway Hill, Hereford.
Simpson, C. W. T., 53, Penn Grove Road, Hereford.
Singleton, Dr. W. A., Chelford Road, Prestbury, Cheshire.
Sisson, Rev. R. B., Moccas, Hereford.
Slatter, A. W., Cedar Lawns, 27, Aylestone Hill, Hereford.
Smith, E. R., Wheat Close, Cutterbach Lane, Kington, Herefordshire.
Smith, H. C., 34, Etnam Street, Leominster.
Smith, J. P., Aylescroft, 95, College Road, Hereford.
Spinks, C. N., Netherwood, Tupsley, Hereford.
Stanford, Charles S., Brockington Grange, Bredenbury, Bromyard, Hereford.
Statham, C. H., Quarry House, Aylestone Hill, Hereford.
Steel, T. O. D., 30, Castle Street, Hereford.
Steward, J. S., 6, Second Avenue, Sherwood Rise, Nottingham.
Stewart, D., Whiteholme, Belmont, Hereford.
Stickings, Rev. H. H., The Vicarage, Bullinghope, Hereford.
Stockley, Rev. Preb., The Rectory, Ross-on-Wye.
Sturgess, C. R. H., Town Well, Credenhill, Hereford.
Styles, P., 15, Church Street, Warwick.
Suter, E. J., 86, Eign Street, Hereford.

Tait, Gardner, Portland House, Weobley, Hereford.
Thomas, C., Hillside, Abbeydore, Hereford.
Thomas, E. D. Ridley, The Lawns, Nunnington, Hereford.
Thomas, J., Hillcrest, 87, Belmont Road, Hereford.
Thomas, W. Ridley, The Lawns, Nunnington, Hereford.
Thompson, A. H., The Hyde, Woolhope, Hereford.
Thomson, Dr. R. T., 26, The Crescent, Tupsley, Hereford.
Thorn, H., Little Netherton, Dymock, Glos.
Thurston, E. J., The Wain, Munstone, Hereford.
Tidd-Pratt, Miss Frances, Residence Hotel, Hereford.
Trafford, Guy, Turvey House, Holmer, Hereford.
Tuchet-Jesson, Miss G. A., Homme House, Much Marcle, Ledbury.
Turner, R. W., Top Croft, Over Haddon, Bakewell, Derbyshire.
Turney, The Rev. F. I., The Rectory, Brampton Bryan, Bucknell, Salop.

Vaughan, G. P., Red House, Kingsland, Leominster.
Victor, Miss M., 31, Castle Street, Hereford.
Vinden, W. A., 354, Upper Ledbury Road, Hereford.

Walker, Dr. C. W., Summerhayes, 14, Venn's Lane, Hereford.
Walker, Dr. R. R., Warden Court, Presteigne, Radnor.
Walter, R. J. K., Eignslow, 4, Hampton Park Road, Hereford.
Walters, E. A., Northwood, Presteigne, Radnor.
Walters, Mrs. E. A., Northwood, Presteigne, Radnor.
Watkins, M. P., Agincourt Street, Monmouth.
Watson, P. Lloyd, Church House, Norton, Presteigne, Radnor.
Watts, Dr. H. H., Wargrave House, St. Owen Street, Hereford.
Watts, Mrs. H. H., Wargrave House, St. Owen Street, Hereford.
Weedon, D. A. J., Bank House, Eaton Bishop, Hereford.
White, Robert, Crahmond, Hampton Park Road, Hereford.
White, R. Comley, The Haven Cottage, Ullingswick, Hereford.
Whitfield, J. R., 36, Three Elms Road, Hereford.

Whittall, Sidney J., Pantall's Farm, Sutton-St. Nicholas, Hereford.
 Widgery, H. Slater, All Saints Chambers, Hereford.
 Willans, J. B., Dolforfan, Kerry, Newtown, Montgomeryshire.
 Williams, P., 35, Mill Street, Hereford.
 Williams, R., 63, College Road, Hereford.
 Williams, R. W., The Haylings, Bromyard, Hereford.
 Windeatt, M., 4, Albert Road, Weston-super-Mare.
 Wingate, C. J., Huntington House, Huntington, Hereford.
 Winnington-Ingram, The Ven. A. J., The Close, Hereford.
 Wood, Arthur, St. George's Nursing Home, Milford-on-Avon, Hants.
 Wood, Arthur S., Lady Well House, Vowchurch, Hereford.
 Wood, E. R., 277, Ledbury Road, Hereford.
 Worsey, J. D., Coghill, 1, Harold Street, Hereford.
 Wright, A. Shaw, Hereford County Libraries, 29, Widemarsh Street, Hereford.
 Wright, William H., 2, The Grange, Leominster.
 Wynne-Thomas, Rev. Preb. A., The Croft, 174, Ross Road, Hereford.
 Yeomans, T. Herbert, New Court, Lugwardine, Hereford.
 Zimmerman, A. U., The Vine, Tarrington, Hereford.

Obituary.

1952

W. R. Bufton	G. Ifor Jones
The Rt. Hon. The Earl of	C. A. Lea-Wilson
Chesterfield	F. P. Loder-Symonds
R. J. H. Cole	E. H. Morris
Kyrle Ffrench	G. W. Perkins
H. E. Grindley	S. Proe
G. H. Jack	J. H. Roberts
F. R. C. Jarvis	C. H. Stoker

1953

W. G. Buisseret	D. C. Swabey
L. V. Head	S. R. Taylor
J. J. S. Powell	P. J. T. Templer
E. C. Romilly	

1954

G. Cadbury	J. C. Lloyd
Rt. Hon. Lord Cawley	A. Lovesey
H. J. Davies	R. W. Pocock
G. Eltome	H. J. Ridger
A. Farquharson	O. B. Wallis
G. A. Hall	

RULES

(as amended at the special meeting on 25th February, 1954)

OF THE

Woolhope Naturalists' Field Club, (HEREFORDSHIRE).

I.—That the Society be known as the "WOOLHOPE NATURALISTS' FIELD CLUB (HEREFORDSHIRE)", for the practical study in all branches of the Natural History and Archæology of Herefordshire, and the districts immediately adjacent.

II.—The Club shall consist of Ordinary Members (Ladies and Gentlemen), and such Honorary Members as may be admitted from time to time; from whom a President, four Vice-Presidents, Honorary Treasurer and Honorary Secretary shall be appointed at the Annual Winter Meeting, to be held at Hereford in the latter part of each year, and they shall hold office for one year beginning at the next Annual Spring Meeting.

The Club may also accept for affiliation as approved, such societies or groups as exist for the furtherance of similar purposes to those of the Club. Each group shall be entitled to have one representative at all meetings of the Club, to receive copies of the *Transactions*, and generally to be treated as one Ordinary Member.

III.—The Management of the Club shall be in the hands of a Central Committee, consisting of the above-mentioned seven officers ex-officio, and of twelve other members elected by ballot at the Annual Winter Meeting. Each elected member of the Committee shall hold office for three years from the next Annual Spring Meeting, and four shall retire each year, but be eligible for re-election. Every candidate for election to the Central Committee shall be individually proposed and seconded at the Annual Winter Meeting, and no proposal for election or re-election *en bloc* shall be accepted. In the event of ties, the President or the Chairman of the Meeting shall have a casting vote. Casual vacancies may be filled at any General Meeting, and any member then elected shall hold office until the date when the term of office of the member whom he succeeds, would have expired. The Central Committee shall be empowered to appoint an Assistant Secretary; its duties shall include making all necessary arrangements for the meetings of the year. Seven shall form a quorum.

IV.—That the Members of the Club shall hold not less than three Field Meetings during the year, in the most interesting localities for investigating the natural history and archæology of the district. That the days and places of two at least of such regular meetings be selected at the Annual Winter Meeting, and that ten clear days' notice of every Meeting be communicated to the Members by a circular from the Assistant Secretary ; but that the Central Committee be empowered, upon urgent occasions, to alter the days of such regular Field Meetings and also to fix special or extra Field Meetings during the year. The President shall have the privilege of choosing the place of one Field Day during his year of office. The Committee shall also arrange such indoor meetings and lectures during the winter as they find possible.

V.—That the Annual Subscription for members and affiliated societies be Twenty Shillings, payable on the 1st January in each year to the Honorary Treasurer or Assistant Secretary. The subscription for additional members of the same household may at their option be reduced to ten shillings each, but those paying this reduced sum shall not be entitled to receive the publications of the Club. Each member may have the privilege of introducing a friend at any meeting of the Club, but the same visitor must not attend more than two meetings in one year.

VI.—That the President be requested to favour the Club with an address at the Annual Spring Meeting, on the proceedings of the year, together with such observations as he may deem conducive to the welfare of the Club, and the promotion of its objects.

VII.—Every candidate for membership of the Club shall be proposed and seconded by members. The Central Committee shall elect or reject the candidate and one black ball in five shall exclude.

VIII.—That members finding rare or interesting specimens, or observing any remarkable phenomenon relating to any branch of Natural History, or making or becoming acquainted with any Archæological discovery in the district, shall immediately forward a statement thereof to the Hon. Secretary or to the appropriate Sectional Editor.

IX.—That the Club undertake the formation and publication of correct lists of the various natural productions and antiquities of the County of Hereford, with such observations as their respective authors may deem necessary.

X.—That any member whose Annual Subscription is twelve months in arrear shall not be entitled to any of the rights and privileges of membership, and that any member whose Annual Subscription is two years in arrear may be removed from membership of the Club by the Central Committee.

XI.—That the Assistant Secretary send out circulars ten days at least before the Annual Spring Meeting to all Members who have not paid their subscriptions, and draw their particular attention to Rule X.

XII.—That no addition to, or alteration of, the Rules of the Club be made except at a General Meeting, after notice has been given of the proposed addition or alteration at a previous Meeting, and the general purport of such addition or alteration has been circulated to all Members with the notice of the General Meeting.

XIII.—That no grant of money from the funds of the Club exceeding £5, may be voted for any purpose, unless notice of such proposed grant has been given at a previous Meeting, or has been approved by the Central Committee.

XIV.—That these Rules be published in each volume of the *Transactions*.

Woolhope Naturalists' Field Club
(HEREFORDSHIRE)

PROCEEDINGS, 1954.

A SPECIAL GENERAL MEETING WAS HELD IN THE WOOLHOPE ROOM ON THURSDAY, 14TH JANUARY, 1954, AT 3.15 P.M.

The President, Mr. I. Cohen, was in the chair.

Apologies for absence were received from the Dean of Hereford, and Dr. Bulmer and Mr. J. G. F. Collins (who wrote that he was in favour of admitting ladies to Club membership).

It was agreed that letters of sympathy be sent to Mrs. Wallis upon the death of Captain O. B. Wallis, and to Mr. H. Thorne who was in hospital.

The Hon. Secretary read a letter from Mr. J. N. Jackson, saying that he had wished to propose that lady members be admitted to the Club, but as he was leaving Hereford he thought that it would be advisable if someone else did so.

Prebendary S. H. Martin then proposed that the word "Ladies and Gentlemen" be inserted in Rule II after the words Ordinary Members. He stated that the Club was the only one of its kind to close its doors to women, and pointed out that women experts were constantly being approached for information.

Col. T. W. M. Johnson seconded the motion, and said that although he did not wish to see a change in the Club, if ladies were not admitted the affiliated societies, which admit ladies, would gain in membership at the expense of the Club, and might eventually separate from it.

The Ven. A. J. Winnington-Ingram said that in the interests of science there was no logical reason why ladies should not be admitted.

Mr. J. E. Mellor opposed the motion on the grounds that the Club Room would be too small, and that field meetings would become unwieldy. He considered that ladies prominent in the Club's field of work should be made Honorary Members.

After further discussion a ballot was taken, with the result: For 43; Against 22.

It was proposed by Mr. A. Shaw Wright, and seconded by Mr. E. H. Cope, that the question of alteration to rules and subscriptions occasioned by ladies being admitted to the Club, should be gone into by the Central Committee. This was agreed to.

THE FIRST SPRING MEETING OF 1954 WAS HELD IN THE WOOLHOPE ROOM ON THURSDAY, 21ST JANUARY, 1954, AT 2.30 P.M.

The President, Mr. I. Cohen was in the Chair.

The minutes of the meeting of 3rd December, 1953, were read and signed.

The President announced that new draft rules had been proposed and that copies of these would be handed to members at a following meeting. He recommended that these be compared with the old rules.

Mr. J. E. M. Mellor wrote to say that he had measured the Bredwardine Mistletoe Oak. Dimensions were as follows:—

Circumference at 5 ft. from ground: 17 ft. 3½ in.; spread (estimated): 63 ft. 0 in.; height (estimated) 78 ft. 0 in.

The figures for 1870 were: circumference at 5 ft. from ground: 11 ft. 6 in.; spread: 80 ft. 0 in.; height: 78 ft. 0 in.

In 1870 there were 15 bunches of mistletoe, and in November, 1953, 11 only, some very small.

Mr. Mellor also sent in some examples of fasciated holly from Upper Bodcott, Dorstone.

The Rev. A. L. Moir stated that he had received a photostat copy of a Papal Bull of 1131, from Mr. William Mory, Keeper of MSS., Canterbury Cathedral. This Bull, sent by Pope Innocent II to Robert de Bethune, Bishop of Hereford (1131-1148) confirmed the rights of the Bishop of Hereford to possessions and goods. In 1121 a grant was made by Henry I of a fair for three days to Bishop Richard de Capella, predecessor to Robert de Bethune, the fair to begin at Hereford on 19th May for three days. Nine-tenths of the profit went to the Bishop and one-tenth to the canons of the Cathedral. The Bishop's bailiff held a court within the Palace precincts and had pillory and stocks. The Bishop had a gaol for the incarceration of offenders against his rights during fair time.

Mr. J. C. Price of Kingsland exhibited a carving in wood of a boss, which came from a cottage in Kingsland.

Major A. E. W. Salt, M.A., then read a paper entitled "Hereford Quarter Sessions Rolls, 18th Century".

He was thanked on behalf of the Club by the Rev. B. B. Clarke.

THE SECOND SPRING MEETING OF 1954, WAS HELD IN THE WOOLHOPE ROOM ON THURSDAY, 11TH FEBRUARY, 1954, AT 2.30 P.M.

Mr. I. Cohen, President, was in the chair.

The Minutes of the meetings of the 14th and 21st January were read and signed. Arising out of the minutes, the Rev. A. L. Moir presented to the Club the photostat of the 12th century Papal Bull, relating to Herefordshire, for which he was thanked by the President.

The following ladies and gentlemen were declared elected:—

Miss M. Victor, Mrs. F. Leeds, Mr. T. W. Pennington, Dr. Hugh Fisher, Mrs. A. W. Langford, Mrs. A. E. W. Salt, Mrs. A. L. Moir, Mrs. J. T. Clapperton.

Major A. E. W. Salt gave a short report on recent severe weather. He recorded nine and a half inches of snow and a temperature of 17 degrees F. at Weobley.

The President then read a paper on "Iron Working in the Forest of Dean", illustrated with slides. He afterwards answered questions. A vote of thanks was proposed by the Hon. Secretary, who commented on the research work that had been necessary to prepare for this contribution to local industrial history. Printed on pp. 161-177.

A SPECIAL MEETING WAS HELD IN THE WOOLHOPE CLUB ROOM AT THE CITY LIBRARY, ON THURSDAY, 25TH FEBRUARY, 1954, AT 2.45 P.M.

Mr. I. Cohen, President, was in the chair.

The minutes of the meeting on the 11th February were read and signed.

The Hon. Secretary was asked to convey to the Bishop the sincere sympathy of the members in his illness, and to express their hope for his speedy recovery to health.

The following ladies and gentlemen were declared elected to the Club:—

Mrs. A. F. Heath, Miss R. Lee, Miss C. Radcliffe-Cooke, Rev. E. H. P. Norton, Mrs. B. B. Clarke, Miss Philips, Mrs. W. L. Cope, Mrs. S. H. Martin.

A letter was received from Messrs. Luke Tilley & Son of Ledbury, asking for advice and financial assistance in the repair of No. 17 High Street, Ledbury. It was resolved that unfortunately this Club was unable to offer any financial help.

The President reported that Messrs. Littlewood's appeal against the decision of the Local Planning Committee to refuse permission for the demolition of Nos. 3, 4, and 5, High Street, Hereford, had been unsuccessful, and that this house would now be preserved.

Consideration of the Rules of the Club, as suggested by the Central Committee then took place, and after a full discussion, the Rules as printed at the beginning of this volume were agreed to.

THE THIRD SPRING MEETING OF 1954 WAS HELD IN THE WOOLHOPE ROOM ON TUESDAY, 2ND MARCH, AT 6.30 P.M.

Mr. I. Cohen, President, was in the chair.

The minutes of the meeting of 25th February were read and confirmed.

A letter had been received from the Lord Bishop of Hereford, thanking the Club for the letter of sympathy sent during his illness.

Dr. C. W. Walker then gave a lecture entitled "Northern British Seabirds", during which he showed slides of the groups of islands to the north of Great Britain, and of the birds he described. He afterwards answered questions.

A vote of thanks proposed by Mr. H. E. Pile was carried with acclamation.

THE FOURTH SPRING MEETING FOR 1954, WAS HELD IN THE WOOLHOPE ROOM, ON TUESDAY, 23RD MARCH, AT 6.30 P.M.

Mr. I. Cohen, President, was in the chair.

The minutes of the meeting of the 2nd March were read and confirmed.

A letter had been received from the City Librarian and Curator, stating that it was desired to remove the Olchon cist from the hall of the Library building, and owing to lack of space to store it. It was decided that the matter be dealt with by the Central Committee.

The Rev. B. B. Clarke reported that he had found the basal zone fossil of the Dittonian diversion of the Old Red Sandstone *Pterapsis cathensis*, White, at Derndale Hill, and that he would write a note on the exact location of the find for the *Transactions*. (See p. 273.)

Mr. J. N. Jackson's paper "Thoughts upon the distribution of the rural population in Herefordshire at the beginning of the nineteenth century" was read in his absence by the Ven. A. J. Winnington-Ingram. (Printed on pp. 178-194.)

At its conclusion, the Rev. B. B. Clarke said that he agreed with Mr. Jackson that the comparative shortage of water supplies was not the whole story. He cited the instance of Garnons Hill, where the main populated area was on the opposite side to the springs. Also he considered reference to the human element to be lacking. The Ven. A. J. Winnington-Ingram considered that the distribution of castles and monasteries and also the large areas of woodland would show light on the pattern.

Prebendary S. H. Martin commented on the Civil War not being mentioned. He considered that it had an important effect.

Mr. J. C. Price remarked that cottages having orchards did not necessarily mean a dispersed pattern as they were in some cases at right angles to the road.

It was agreed that a vote of thanks be sent to Mr. Jackson.

THE SPRING ANNUAL MEETING WAS HELD IN THE WOOLHOPE ROOM ON THURSDAY, 8TH APRIL, 1954, AT 2.30 P.M.

Those present were the retiring President, Mr. I. Cohen, the President-elect, Col. T. W. M. Johnson and 48 members.

The minutes of the meeting of the 10th December, 1953, were read and signed.

The retiring President then gave his address. (Printed on pp. 153-160.)

Col. T. W. M. Johnson was then installed as President.

The President said that the Central Committee had considered the question of the removal of the Olchon cist and that Mr. Gavin Robinson would speak to the meeting on the matter. The latter said that it appeared that the archaeological value of the exhibit was not fully recognised. He had been speaking to Dr. Nash Williams of Cardiff who did not know of a similar cist on exhibition; they certainly had not one in Wales. Mr. Gavin Robinson said that it was the foundation stone of archæology in the county and he moved that a letter be sent to the Library Committee asking them to allow the exhibit to remain. This was carried unanimously.

The Hon. Treasurer, Mr. A. R. Dain, presented his report. The amount in the general account on 31st December, 1953, was £452 3s. 4d. compared with £258 2s. 1d. the previous year. The general reserve account stood at £129 17s. 5d. as compared with £127 17s. 8d. The Merrick Bequest stood at £31 16s. 3d. as compared with £27 15s. 8d. The £1 0s. 6d. of the Benn Bequest had been transferred to the general account.

Col. Johnson thanked Mr. Dain for the statement and Mr. H. S. Widgey for auditing the accounts. He also thanked Mr. L. H. Parker for his work on the covenant scheme.

The Assistant Secretary, Mr. V. H. Coleman, reported that the membership at the end of 1953 was 364 made up as follows:—Honorary Members 10; Ordinary Members 347; Library Members 7.

New members in 1953 totalled 23, the loss was 32 as follows:—Members died 11; Members resigned 14; Members struck off 7.

The Hon. Librarian, Mr. F. C. Morgan reported that in 1953 a great deal more use was made of the library and that 67 volumes had been borrowed.

It was decided that a whole day field meeting be at Llanilieu and that the half day meetings be at Brinsop and Downton Castle. The President chose Hartlebury for his field meeting.

The President announced that the Central Committee had decided to invite Dr. Kathleen Kenyon and Miss Lily Chitty to be Honorary Members of the Club.

Mr. Harold Butcher and Mrs. M. J. Lockett had been elected members.

THE FIRST FIELD MEETING FOR 1954 WAS HELD ON TUESDAY, 25TH MAY.

Leaving the City Library at 10 a.m. the party consisting of the President, Col. T. W. M. Johnson, and some fifty members proceeded to Tyberton church. Here the interesting eighteenth century brick church was described by the Hon. Secretary. (See

pp. 278-284 for a description of the hatchments in the church, by Paul Morgan.)

The next stop was at Turnastone church. This was described by the President, the Vicar, and Mr. Gavin Robinson, who also made an appeal for funds to complete the restoration, and identified the site of a well at which idolatry took place, according to an ancient document read by Prebendary S. H. Martin, who asked if anyone could give information about the holy well to which pilgrimages were made in 1410. The following entry is in the register of Bishop Mascall.

Writing to the dean and clergy he says: "It has come to our ears, we grieve to say, from the report of many credible witnesses and from the common report of the people, that many of our subjects are in large numbers visiting a certain well and stone at Turnastone in our diocese, where with genuflections and offerings they, without the authority of the church, wrongfully worship the said stone and well, whereby committing idolatry; and when the water fails they take away with them the mud of the same and treat it and keep it as a relic, to the grave peril of their souls and a pernicious example to others. Therefore we suspend the use of the said well and stone and under pain of greater excommunication forbid our people to visit the well and stone for purposes of worship. And we depute to each and all of you to publicly proclaim in your churches and parishes that they are not to visit the place for such purposes. Given at Wormsley, September 22nd, in the year aforesaid."

We were told that the well was by the side of the road not far from the church, but that it had recently been boarded over and the water from it pumped for the use of a house close by. We heard nothing about the stone.

The party then went to Michaelchurch Escley, where a wall painting of Christ, surrounded by a great variety of tools was described by the President. Before leaving, owing to inclement weather, the Rev. B. B. Clarke gave a talk here on Wayne Herbert quarry and of the fossils which had been found there. (See pp. 273-4.)

The quarry was next visited and the party went on to Longtown. Here the remains of the castle were seen and its history given by Major A. E. W. Salt. The Rev. B. B. Clarke described the glaciation of the district.

The party then went on to Llanvihangel Court to see this interesting house where tea was served. Afterwards a business meeting was held.

The minutes of the meeting of 23rd March were read and confirmed. Arising out of the minutes the President stated that the Library Committee had not seen fit to agree to the Club's request for the Olchon cist to remain in the hall of the library and the Librarian had again requested Mr. Gavin Robinson to assist with its removal. It was proposed by the Rev. H. A. Edwards, seconded by Mr. V. Higham that a letter explaining the archaeological value of the cist be sent to *The Times*. This was carried. The Rev. B. B. Clarke proposed, seconded by Mr. F. M. Kendrick, that a letter be sent to the *Hereford Times* saying that the meeting was horrified to learn of the decision of the Committee. This also was carried. The President explained that time was very short but that he would see what could be done.

Prebendary S. H. Martin said that at the last meeting of the Local History Committee it had been proposed that a more suitable memorial be erected to commemorate the Mortimer's Cross battle and asked if the Woolhope Club would like to deal with the matter. It was proposed by the Rev. B. B. Clarke, seconded by Dr. Langford, that the matter be left to the Local History Committee. This was carried.

Letters had been received from Miss Kathleen Kenyon and Miss L. Chitty thanking the Club for electing them to honorary membership.

The Hon. Secretary announced that the "River Wye Guild" had donated £50 to the Club.

The Hon. Librarian stated that Lord Rennell had presented the Club with a copy of the history of the Mappa Mundi in Hereford Cathedral, with large-scale reproductions.

The following ladies and gentlemen were declared elected members: Lady Hoskyns Abrahall, Mr. P. Davies, Mrs. W. H. Howse, Miss M. E. Newall, Mrs. H. Biggs, Mrs. L. H. Parker.

THE SECOND FIELD MEETING FOR 1954 WAS HELD ON SATURDAY, 19TH JUNE.

A party left the City Library and proceeded to Brinsop where the small, but very interesting church was described by the President, Col. T. W. M. Johnson. The party then went on to Brinsop Court, where they were received by Sir D. T. L. Bailey who very kindly showed members over the house and grounds.

The next stop was at the Butt House, King's Pyon. Here the old gate house was described by Major P. G. Verdin, who also exhibited a painting from Garnstone showing the Butt House, as it was formerly, and a corn mill which has now disappeared.

After a picnic the party then went on to Garnstone Castle where Lt.-Col. and Mrs. R. N. H. Verdin showed the members over the house and grounds. Major Verdin outlined the history of the house.

The party then returned to Hereford.

THE THIRD FIELD MEETING (PRESIDENT'S DAY) FOR 1954 WAS HELD ON THURSDAY, 8TH JULY.

The President, Col. T. W. M. Johnson and more than eighty members and guests left the City Library at 9.30 a.m. and travelling via Ledbury and Worcester made the first stop at Holt church. This interesting Norman building was entertainingly described by Commander the Hon. H. Packington. A mile further on the party stopped at the Holt Fleet hotel for coffee.

The next stop was at Hartlebury Castle, the residence of the Bishop of Worcester, by whose permission the building and library containing many rare editions of important books, were described by the Rev. Dr. P. C. Moore.

Lunch was eaten on Hartlebury Common, where, in spite of its proximity to Stourport, interesting botanical specimens were found. Mr. F. M. Kendrick here spoke on the geology and botany of the area.

At Astley, the next stop, the 12th century church was visited and the tombs of the Blount family made by John Gildon, a Hereford sculptor, were seen. The church was described by the President, and an account of the tombs was given by the Hon. Secretary.

The church next visited, at Great Witley, was in complete contrast, being early Georgian and of great interest. It is large and ornate, with painted panels in the ceiling and good contemporary glass. This, also was described by the President whose remarks were supplemented by those of the Vicar.

Tea was provided at the Swan Hotel at Tenbury and this was followed by a business meeting.

The minutes of the meetings of the 25th May and 19th June were read and passed. Arising out of the minutes and in connection with Olchon cist, the President gave an account of the committee meeting called to deal with this matter. He said that the Club had accepted the invitation to meet the Chairman of the Library Committee and Mr. Gavin Robinson, the Rev. B. B. Clarke and he himself had attended the meeting, and although the decision to move the cist could not be altered an alternative site was being considered.

The Hon. Secretary announced that Mr. E. Batiscombe had presented the Club Library with four volumes of *Curtis's Botanical Magazine* and two volumes of Westwood's *British Moths*, both illustrated works having numerous plates in colours.

Prebendary S. H. Martin also mentioned a letter from Archbishop Langton to the Bishop of Hereford which contained a mandate from Pope Honourius II about the need for recalling small communities of monks in this country to a centre where discipline could be preserved.

Mrs. A. M. Fairhurst of Tyn-y-Coed, Shobdon, wrote to say that an *Astrantia major* L. was again blossoming outside her gate.

The City Librarian wrote saying that it was proposed to make a charge for the use of the Woolhope Room as follows:—Societies affiliated to the Club 4/—, Other societies 5/—, and invited comments on this.

The Hon. Secretary announced that the publishers of the Centenary Volume had promised to deliver the books in batches of 100 and that the first batch had been promised for the following week. He also mentioned that a new edition of *Herefordshire Birds*, by Capt. H. A. Gilbert and Dr. C. W. Walker, was ready for issue to members. It was agreed that the thanks of the Club be

given to the Hon. Secretary for the great amount of work he had done in connection with the Centenary Volume and to Mr. Cohen for preparing an index of the *Transactions* 1936 to 1951.

The President gave an account of an excavation on the Little Doward by schoolboys in charge of Mr. A. L. Sockett from Monmouth. The site was an enclosure on the side of the Doward and Romano-British pottery had been found. The original height of the bank above the bottom of the ditch was 20 ft. It had been seen by Miss Kenyon and Mr. Nash Williams.

THE FOURTH FIELD MEETING FOR 1954 WAS HELD IN THE GLOUCESTER DISTRICT ON THURSDAY, 22ND JULY.

The President and members left the City Library at 9.30 a.m. and travelled *via* Ledbury to Tewkesbury where a stop was made for coffee.

The next stop was a short one to see the ichthyosaurus in the porch of Tredington church.

Stoke Orchard church was next visited and the recently uncovered wall paintings were described by the Vicar. (See pp. 274-6.)

The party then went on to Bishop's Cleeve where the church was described by the President.

After a picnic lunch at Haydon's Elm, Highnam Court was visited by permission of T. M. Gambier Parry, Esq., who personally conducted members round the house and described the valuable pictures, mainly early Italian, and furniture.

Tea was provided at the New Inn at Gloucester, after which a business meeting was held.

The minutes of the meeting of the 8th July, were read and signed.

Miss E. Armitage wrote and thanked the Club for the offer of honorary membership, which she gratefully accepted. She mentioned that her father, Mr. Arthur Armitage, was an original member of the Club and that when he was president in 1897 he exhibited paintings of birds by her mother.

The following ladies and gentlemen were declared elected:—Dr. W. A. Singleton, Mrs. M. Weedon, Mrs. E. D. Lewis, Miss Esther Aline Lownds Moir, Miss Patricia Merrill Lownds Moir, Mrs. J. E. Pennington, Mr. J. S. Steward.

The party then went to Churchdown church which was described by the President.

THE FIFTH (HALF-DAY) FIELD MEETING FOR 1954 WAS HELD IN THE HOLME LACY DISTRICT ON SATURDAY, 14TH AUGUST.

The President, Col. T. W. M. Johnson, and about 50 members left the City Library at 2 p.m. and proceeded to Aconbury, where near the church Mr. F. M. Kendrick showed the party the danewort

and other plants of interest, and described the botany of the district. At Holme Lacy church Prebendary S. H. Martin gave a history of the religious settlement there, and described the church and monuments of the Scudamores.¹ His remarks were supplemented by the Vicar, the Rev. J. Dent, who had allowed the visit to the church to be made.

At Holme Lacy mansion, where the next stop was made, and which was visited by permission of Dr. T. E. Burrows, the Hon. Secretary gave a short account of the architecture and supplemented the remarks made in the church by Prebendary Martin on members of the Scudamore family.

Owing to heavy rain tea had to be eaten in the coach and cars, but afterwards in fine weather the beautiful gardens were visited. Here Miss E. Armitage described the *Zelkova crenata* in the grounds. This is the only known example in England, and has a peculiar method of growth, as the trunk divides into a large number of round pillar-like stems, and is therefore useless as timber. It measured 21 ft. 6 in. at ground level, whereas in Bean's *Trees and Shrubs*, 1914, it was said then to be 19 ft. Miss Armitage believes that the tree looked as if it would live for another hundred years.

The last stop was on Caplar Hill where Mr. Kendrick again described the botany of the district around, and where fine views of the county could be seen.

THE SIXTH FIELD MEETING FOR 1954 WAS HELD IN THE TALGARTH DISTRICT ON THURSDAY, 23RD SEPTEMBER.

About 65 members left the City Library at 9.30 a.m. and travelled *via* Staunton-on-Wye to Bredwardine. Here the church was visited and was described by the Hon. Secretary, Mr. F. C. Morgan. Some members visited Kilvert's grave in the churchyard and in the vicarage garden a *Ginkgo biloba* tree was seen.

Continuing to Hay, coffee was partaken at the Wye Hotel and the party then went on to Llanilieu where the church, with the interesting remains of rood screen and loft, were seen and described by the President. The stocks, part of a live yew tree, were also seen.

The next stop was at Llandefalle. After a picnic lunch a business meeting was held.

The minutes of the meetings of 22nd July and 14th August were read and confirmed.

The Hon. Secretary felt that he was unable to continue as the Club's delegate to the Council of British Archaeology No. 8 Group's meetings in Birmingham. It was thought that the Hereford Group of the West Midlands Archaeological Survey could perhaps suggest a delegate.

¹ See p. 277.

In order to fill the vacancy on the Central Committee caused by the death of Capt. O. B. Wallis, the name of Mr. J. C. Price was put forward by the Committee. This was approved by the meeting.

The Hon. Secretary said that many congratulatory letters had been received in connection with the Centenary Volume. Donations toward the cost of publication amounted to £44 1s. 0d. and £53 had been received from sales. The President conveyed the thanks of the Club to Mr. Morgan for the large amount of work done by him in the publication.

Mr. I. Cohen reported on investigating an underground passage alleged to exist between two public houses in Ross-on-Wye.

This concluded the meeting and Llandefalle church was visited. It was described by the President and the monuments to the Gwynne family were seen.

The party then left for Trefecca Fawr manor house, the home of Lt.-Col. D. R. H. and Mrs. Gwynne, who kindly allowed members to see over the house and provided tea. The ceilings were of great interest.

THE FIRST AUTUMN MEETING FOR 1954 WAS HELD ON THURSDAY, 14TH OCTOBER, AT 2.45 P.M.

The President, Col. T. W. M. Johnson, was in the chair.

The minutes of the meeting of 23rd September were read and signed.

The President announced that two distinguished members of the Club had died recently and the members stood in silence. They were Lord Cawley and Mr. George Cadbury. Letters of sympathy had been sent by the Hon. Secretary.

The President said that as the Club's president he had accepted the invitation of the Worcestershire Archaeological Society to their Centenary Dinner. Appreciative remarks during the speeches had been made of the late Mr. George Marshall and Mr. F. C. Morgan, for which Col. Johnson had given thanks.

Mr. J. C. Price had written thanking the Club for his election to the Central Committee.

Miss Carver had written saying that she had heard that it was planned to move the White Cross during the present road making activities. Mr. I. Cohen stated that he had been to see the City Surveyor, who had said that it was not the intention to move the cross.

The Hon. Secretary stated that the donations towards the cost of publishing the Centenary Volume amounted to £48 2s. 6d.

Mr. A. Shaw Wright stated that Blount's manuscript history of the County had been secured for the County Library.

The following were declared elected to membership:—Miss G. A. Tuchet-Jesson, Mrs. Ida Alison, Mrs. E. S. Newman, Mrs. G. H. Butcher,

Mr. I. Cohen, M.I.Mech.E., then read his paper on "The Navigation of the Non-tidal Wye", which was illustrated by

slides. After answering questions he was thanked by the President who remarked on the large amount of research involved in compiling the paper.¹

THE SECOND AUTUMN MEETING FOR 1954 WAS HELD ON THURSDAY, 28TH OCTOBER, AT 2.45 P.M.

The President, Col. T. W. M. Johnson, was in the chair.

The minutes of the meeting of the 14th October were read and signed.

Miss Armitage exhibited a specimen of the foliage of *Metasiquoia disticha*. The tree which is now five years old is 10 ft. 6 in. high.

Col. Johnson mentioned the connection between Tiffont Evias in Wiltshire and Ewyas Harold in Herefordshire in that in both places lands were held by Harold.

The Rev. B. B. Clarke, M.A., M.Sc., then read his paper "The Old Red Sandstone of the Merbach Ridge, with an account of the Middlewood Sandstone, a new fossiliferous horizon 500 ft. below the Psammosteous Limestone", which was illustrated with slides. (Printed on pp. 195-219.)

A vote of thanks proposed by Mr. F. M. Kendrick was passed with acclamation.

THE THIRD AUTUMN MEETING WAS HELD ON THURSDAY, 11TH NOVEMBER, 1954 AT 2.45 P.M.

The President, Col. T. W. M. Johnson, was in the chair.

The minutes of the meeting of the 28th October were read and signed.

The following were proposed for membership:—Rev. C. Smith, Mr. H. A. Smith, Miss G. Dunne.

Prebendary S. H. Martin then read a paper on "St. Guthlac's Priory and the City of Hereford Churches", illustrated with lantern slides. He was thanked by the President. (Printed on pp. 219-229.)

THE FOURTH AUTUMN MEETING FOR 1954 WAS HELD ON THURSDAY, 25TH NOVEMBER, AT 2.45 P.M.

Col. T. W. M. Johnson, President, was in the chair.

The minutes of the meeting of the 11th November were read and signed.

It was agreed that a letter of sympathy be sent to the Rev. C. L. Money-Kyrle who was in hospital for an operation on his eyes.

The Rev. A. L. Moir, M.A., then read a paper entitled "The World Map in Hereford Cathedral". This was illustrated by lantern slides.²

¹ This will be printed in the next volume of the *Transactions*.

² Printed separately as a pamphlet.

A vote of thanks was moved by Prebendary E. H. Beattie, M.C., and was carried with acclamation.

THE WINTER ANNUAL MEETING WAS HELD ON THURSDAY, 9TH DECEMBER, 1954, AT 2.45 P.M.

The President, Col. T. W. M. Johnson, was in the chair.

The minutes of the meeting of the 8th April were read and signed.

The Hon. Secretary announced that Mr. Ivor Bulmer-Thomas had suggested that, provided sufficient funds were forthcoming, the Shobdon arches should be protected by a brick and tiled building. Should this be done the owner had agreed to give the land and allow right of way for access. Mr. Bulmer-Thomas had asked if the Woolhope Club would become the Trustees of the arches. It was proposed by Mr. A. Shaw Wright, seconded by Mr. D. R. Dudley, and carried unanimously, that this suggestion be accepted.

The following officers were elected for 1955:—*President*, Rev. A. L. Moir; *Vice-Presidents*, Col. T. W. M. Johnson, Mr. I. Cohen, Mr. A. U. Zimmerman, Rev. B. B. Clarke; *The Central Committee* (four vacancies), Ven. A. J. Winnington-Ingram, Mr. F. M. Kendrick, Major A. E. W. Salt, Mr. D. R. Dudley; *Hon. Secretary*, Mr. F. C. Morgan; *Hon. Treasurer*, Mr. A. R. Dain; *Hon. Auditor*, Mr. H. S. Widgery; *Hon. Lanternist*, Mr. Basil Butcher; *Hon. Librarian*, Mr. F. C. Morgan; *Editorial Committee*, Ven. A. J. Winnington-Ingram, Mr. W. H. Howse, Mr. I. Cohen and Mr. F. C. Morgan; *In Charge of the Covenant Scheme*, Mr. E. H. Cope. Section Editors: *Archæology*, Mr. I. Cohen and Preb. S. H. Martin; *Botany*, Mr. F. M. Kendrick; *Geology*, Rev. B. B. Clarke; *Lepidoptera*, Rev. R. B. Sisson; *Mammals*, Mr. J. E. M. Mellor, *Ornithology*, Capt. H. A. Gilbert and Dr. C. W. Walker.

The Section Editors for 1954: Ornithology—Dr. C. W. Walker, Archæology—Mr. I. Cohen and Preb. S. H. Martin and Botany—Mr. F. M. Kendrick, then gave their reports. (See pp. 293-300.)

The following places were chosen for two field meetings in 1955 (a) Claverley, Tong, Boscobel and Whiteladies, and (b) Ludlow, Stokesay Castle and Oakley Park.

The Hon. Secretary announced that Miss Bull had presented to the Club a number of the Club's early volumes, now scarce, and also volumes for nine years which the late Dr. H. G. Bull had grangerized.

Dr. and Mrs. H. H. Watts and Mr. F. Noble were elected members.

Mr. V. Higham read Mr. Graham Webster's report of the recent excavations at the Roman fort at Tedstone Wafer. (See pp. 284-7.)

WOOLHOPE NATURALISTS' FIELD CLUB (HEREFORDSHIRE)

AUDITOR'S CERTIFICATE.

HERBERT S. WIDGERY, M.A., F.C.A.,
Hon. Auditor.

YEAR TO 31ST DECEMBER. 1954

MERRICK BEQUEST ACCOUNT

GEORGE MARSHALL FUND

iii

Woolhope Naturalists' Field Club
(HEREFORDSHIRE)

PROCEEDINGS, 1952.

FIRST SPRING MEETING, THURSDAY, 17TH JANUARY, 1952 :—
The President, Mr. F. C. Morgan, was in the chair and there was a large attendance of members and guests.

The minutes of the meeting of the 6th December, 1951, were read and confirmed.

An apology for absence from the Rev. B. B. Clarke was received.

The President mentioned that an oculist's stamp from Kenchester, at one time in the possession of Mr. Richard Johnson, Town Clerk of Hereford, and subsequently lost sight of, had been traced to the British Museum. It is illustrated in "Antiquities of Roman Britain" recently published by the Trustees.

The President also announced that the Royal Archaeological Institute of Great Britain and Ireland would be holding its summer meeting for 1952 in Hereford from the 14th to 19th July.

A small knife and spearhead found during the excavations at Clifford Castle by Air Commodore Douglas Iron were exhibited.

A report on the status of the Kite in 1951 had been received.

Mr. H. J. Powell, F.R.I.B.A., then read a paper on "The Church Architecture of Herefordshire" liberally illustrated with lantern slides. He pointed out that local conditions such as lack of stone, plentiful timber, and only moderate prosperity, owing to the unsettled state of the county in early days, had affected the design and construction of Herefordshire churches.

A vote of thanks to Mr. Powell proposed by the Ven. Archdeacon A. J. Winnington-Ingram in which he said that the paper was a valuable contribution to the Centenary volume¹ was carried.

SECOND SPRING MEETING, TUESDAY, 29TH JANUARY, 1952 :—
The President, Mr. F. C. Morgan, was in the chair, and a large number of members and guests were present.

The minutes of the meeting of the 17th January were read and confirmed.

An apology for absence was received from Dr. A. Wood.

The President announced that copies of the "Memorandum on the Ancient Monuments Acts" had been received and members interested were invited to take one.

¹It is hoped that a volume to celebrate the centenary of the Club in 1951 will be published before the end of 1953.

The following gentlemen were proposed for election: Rev. W. G. Brown, Little House, Mynde Park, Much Dewchurch; Rev. J. T. Clapperton, 31, Broomy Hill, Hereford; Preb. A. Wynne Thomas, Bridstow, Ross-on-Wye (re-joining).

The President announced that during his audit, Mr. H. S. Widgery pointed out that the names of some new members and others who had rejoined during the year past had not been recorded in the minutes. They were: Messrs. F. G. Barrett, J. E. Cheney, E. H. Cope, J. H. Cole, the Rev. R. H. Clutterbuck, Major O. G. S. Croft, Brig. N. Copland-Griffiths, Mr. J. A. Coker, Rev. J. C. Dale, Rev. H. A. Edwards, the Society of Genealogists, Professor J. H. Hutton, Mr. Leslie Harris, Herefordshire Ornithological Society, Kidderminster Borough Library (as a library member), Messrs. E. L. Lambert, J. C. Murray, T. V. Milligan, G. D. Milne, Bro. James Oakley, Messrs. J. E. E. Oakley, J. R. W. Perry, Ernest Proe, C. F. Roberts, and E. J. Thurston.

The Ven. Archdeacon A. J. Winnington-Ingram then read his paper on "The History and Architecture of Hereford Cathedral". This most scholarly and interesting paper had been written to form part of the Centenary volume. It was illustrated by lantern slides.

A vote of thanks to the Archdeacon was proposed by Col. T. W. M. Johnson, seconded by the Dean of Hereford, and carried.

THIRD SPRING MEETING, THURSDAY, 14TH FEBRUARY, 1952: The President, Mr. F. C. Morgan, in the chair, and a large number of members and friends were present.

Apologies for absence were received from Major A. E. W. Salt, and the Ven. Archdeacon A. J. Winnington-Ingram.

The members present stood in silence as a tribute to the memory of His Majesty King George VI.

The minutes of the meeting of the 29th January were read and confirmed.

A reply had been received from the British Museum in connection with the oculist's stamp found at Kenchester. This had been purchased from H. T. Lechmere, Esq., Shepton Vicarage, Leighton Buzzard, and the Trustees offered to supply a facsimile for Hereford Museum.

The following gentlemen were declared elected as members:—Rev. W. G. Brown, Little House, Mynde Park, Much Dewchurch, and Rev. J. T. Clapperton, 31, Broomy Hill, Hereford. The Preb. A. Wynne-Thomas, Bridstow, Ross-on-Wye, was re-elected.

The President mentioned that two old members, Major E. A. Caple and Mr. H. Pugh, had been unable, owing to illness, to attend meetings for some time. It was agreed that letters of sympathy be sent to them.

The President stated that a 15th century cure for "megrim" had been found in one of the Cathedral books. As one of the ingredients was red worms, it was considered that it was not likely to become popular. This is on a fly-leaf of Perottus, *Cornucopiae, seu Latinae linguae commentarii* (K.8.XI) and reads:

For the megrym tacke Redde wormes & the wygte of eggs & the herbe callyd [name omitted] that growghe on the howsse. C. Hottemell.

The herb is almost certainly the house-leek.

Mr. W. H. Howse, M.A. then read his "Short History of Hereford", prefacing this with the remark that few towns have had a longer or more illustrious history, or were less conscious of their past. He traced the history of the city from Roman times to the present day in an interesting way. The paper was written for the Centenary volume.

A vote of thanks proposed by Mr. Templer was carried.

FOURTH SPRING MEETING, THURSDAY, 6TH MARCH, 1952:—The President, Mr. F. C. Morgan, was in the chair and a good number of members and guests were present.

The minutes of the meeting of the 14th February were read and confirmed.

The following gentlemen were proposed for election:—Mr. Ross Fink, The Cloisters, Hereford; Mr. C. S. Gardener, Yatton Court, Aymestrey.

A letter was received from the County Planning Officer, enclosing a letter from the Society for the Preservation of Ancient Buildings, asking for a survey of wind and water mills in the county.

A letter from the Ministère de la France d'Outre Mer asking for various plants was handed over to Major A. E. W. Salt for attention.

A letter from the proprietor of the Golden Wings coaches hoping that the Club had been pleased with his services in 1951 was read. It had been replied to by the Hon. Treasurer, who had expressed the satisfaction of the members.

Major A. E. W. Salt, M.A., then read a paper, written for the Centenary volume, on the "Economic Geography of Herefordshire". This contained a wealth of statistical information.

A vote of thanks was proposed by the Rev. B. B. Clarke, M.A., M.Sc., and agreed to.

FIFTH SPRING MEETING, THURSDAY, 27TH MARCH, 1952:—Prior to the meeting and with the Ven. A. J. Winnington-Ingram in the chair, the Rev. B. B. Clarke spoke of the honorary degree of M.A. offered to the President, Mr. F. C. Morgan, by Birmingham University. He said that this reflected glory also on both the Club and the City, and proposed the following resolu-

tion:—"That we offer to our President our heartfelt congratulations on the honorary degree of Master of Arts that the University of Birmingham is to confer on him on the 5th July".

This was seconded by Major A. E. W. Salt, M.A., who spoke of Mr. Morgan's kindness and friendliness, especially in matters relating to the Woolhope Club.

The resolution was put to the meeting and was carried with acclamation.

Mr. Morgan in reply said that he had been overwhelmed by the unexpected honour, which was unsought. He looked on it largely as an appreciation of the work of the late Dr. H. G. Bull and the late Mr. George Marshall.

The President, Mr. F. C. Morgan, then took the chair, a large number of members and guests being present.

The minutes of the meeting of the 6th March were read and confirmed.

The following gentlemen were declared elected:—Mr. Ross Fink and Mr. C. S. Gardener.

The following gentlemen were proposed for election:—Dr. H. J. Baker, 253, Whitecross Road, Hereford; Mr. C. N. Spinks, Netherwood, Tupsley, Hereford; Rev. J. T. Vivian-Jones, The Vicarage, Orleton; Mr. E. E. James, 28, Moor Farm Lane, Hereford; and Mr. W. Backhouse, Sutton Old Court, Sutton St. Nicholas.

A letter had been received from Mr. F. W. B. Yorke stating that 18th century wall paintings and paper had been found at the Feathers Hotel, Ledbury.

The President announced that Dr. Kathleen Kenyon would be holding a School in Archaeology at Wroxeter in September.

A copy of the first Annual Report of the Herefordshire Ornithological Society had been received.

Major A. E. W. Salt, M.A., stated that from information obtained from the Public Record Office it was now known that Henry III on 6th February, 1252, granted a charter to Brampton Bryan for a Tuesday market and also a fair on the vigil and feast of St. Barnabas. The fair was 700 years old.

Mr. T. Overbury, F.R.I.B.A., F.S.A., then read a paper on the "Domestic Architecture of Herefordshire". This is for the Centenary volume.

The President proposed a hearty vote of thanks to Mr. Overbury who answered several questions.

ANNUAL SPRING MEETING, THURSDAY, 10TH APRIL, 1952:—The President, Mr. F. C. Morgan, in the chair, and a large number of members were present.

The minutes of the meeting of 13th December, 1951 were read and confirmed.

Apologies for absence were received from Messrs. F. T. Hocking, C. M. Sturgess, T. H. Yeomans, L. Richardson, Hubert J. Powell, G. H. Butcher and C. Evans.

The Report of the Council, their Bulletin No. 7 and a questionnaire on the proposed increase of subscriptions were received from the Severn Wildfowl Trust.

A letter was received from Sir Hugh Rhys Rankin of Bryngwyn, Radnor, asking for information about fields at Bryngwyn called "The Palace", also on a disused building called "Davarn" and a medieval figure on a cottage near Huntington.

The retiring President, Mr. F. C. Morgan, gave his address on the "Hundred Years of the Woolhope Club".¹

Major A. E. W. Salt was then installed as President for 1952-3, and was invested with the Presidential badge.

The Rev. B. B. Clarke spoke of an event he thought must be unique in the Club's annals—a president taking office and getting married almost immediately afterwards; he then presented to Major Salt a fireside chair which had been subscribed for by members of the Club as a wedding present.

Major Salt made a suitable reply.

The Hon. Treasurer, Mr. P. J. T. Templer, then read his report for 1951. This showed that the balance at the end of 1951 stood at £166 2s. 8d. as compared with £308 11s. 4d. in 1950. The amount in the reserve account was £125 14s. 2d., the Benn Fund £1 0s. 6d. and the Merrick Bequest £23 17s. 5d. He thanked Mr. H. M. Prichard for the very valuable work he had done in organising the Covenant scheme for the recovery of Income Tax, and the anonymous donor of £15 given to assist the Centenary dinner finances.

The Hon. Librarian reported that 66 books had been borrowed in 1951, a great increase over 1950.

The Assistant Secretary then reported on the Club membership which at the end of 1951 was: Honorary Members 11, Ordinary Members 351, Library Members 8, total 370. New Members in 1951 36, Members lost in 1951: died 11, resigned 12, struck off 5, total 28.

Major Salt said that the Club had had a very successful Centenary year and he thanked Mr. Morgan and other officers of the Club for their work.

The following Field Days for 1952 were agreed to: Whole Days—15th May (Thursday), Westonbirt Arboretum, Chavenage House and if possible, Malmesbury Abbey. Thursday, 5th June—Abbeydore and De la Haye Forest. Thursday, 24th July, Eardisley, Kington, Llandrindod, Clyro, etc. Thursday, 14th August, North-leach and Burford. Half Days—Saturday, 12th July, Ross Area. Saturday, 13th September, Croft, Richard's Castle and Orleton. The

¹ To be printed in the Centenary volume.

meeting on 24th July was selected as the President's day and that of 14th August as Ladies' day.

The following gentlemen were declared elected :—Dr. H. J. Baker, 253, Whitecross Road, Hereford; Mr. C. N. Spinks, Netherwood, Tupsley, Hereford; Rev. J. T. Vivian-Jones, The Vicarage, Orleton, Ludlow; Mr. E. E. James, 28, Moor Farm Lane, Hereford; Mr. W. Backhouse, Sutton Old Court, Sutton St. Nicholas.

The following gentleman was proposed for membership :—Major W. M. P. Kincaid Lennox, Downton Castle.

Mr. W. G. Farmer said that the remains of the City wall between Bath street and Gaol street were being destroyed and asked if anything could be done. It was resolved that the attention of the City Council be drawn to this matter.¹

Mr. G. Bright asked if something could be done to preserve the dovecote at Eardisland. The President said that he would discuss the matter with him.

¹ The City Council had the exposed part of the wall repaired shortly after this meeting.

FIRST FIELD MEETING, THURSDAY, 15TH MAY, 1952—TETBURY DISTRICT :—The President, Major A. E. W. Salt, M.A., and about fifty members and guests were present.

Apologies for absence were received from the Dean of Hereford, Messrs. H. M. Prichard, L. S. Parker and Rev. B. B. Clarke.

In two coaches and several cars the party left the City Library, at 9.30 a.m. and proceeded *via* Dymock, Gloucester, Stroud, Nailsworth and Avening to Tetbury. Here coffee was served at the Ormonds Head Hotel. Leaving Tetbury the next stop was the Westonbirt Arboretum which was visited by kind permission of the Rt. Hon. Lord Morley. A great variety of rare trees and shrubs, and the rhododendrons and azaleas then in bloom, were seen and much admired. At the conclusion of the visit Mr. Mitchell, the curator, who had been associated with the Arboretum for 60 years, and who had shown the party round was thanked by Major A. E. W. Salt.

After a picnic lunch the party proceeded to Chavenage House, where it was received by Lt.-Col. J. S. Lowsley-Williams, the owner, and by his permission the house was visited under the guidance of members of his family. This is a fine 16th century Cotswold mansion and is reputed to be haunted.

The party returned to Tetbury for tea, prior to which the business meeting was held :—

A letter from Mr. B. Butcher describing the condition of the disused church at Brockhampton near Ross was read. Ancient stained glass was lying on the ground and the shaft of the preaching cross had been broken.

A resolution, proposed by Mr. W. G. Farmer, seconded by Major R. E. Combe, stating that the Club was distressed at the state of the church, and that a letter be sent to the Archdeacon of Hereford calling attention to it was carried.

The water mill at Lucton offered by Lt.-Col. L. F. B. Groube to the Ministry of Works, at the Hon. Secretary's suggestion had been accepted by the Ministry.

The Hon. Secretary announced that the second consignment of books had been received from the George Marshall Library, and he asked for help in cataloguing them.

Mr. R. S. Gavin Robinson's help in organising this meeting was gratefully acknowledged.

At tea, a collection for the Nursing Fund was taken and the amount of £3 10s. 6d. was realised.

Mr. D. C. Swabey, of The Green, Withington, was proposed for membership.

The return journey was made *via* Frocester, where, by permission of Mr. C. J. Price, the large tithe barn was visited and described by Col. T. W. M. Johnson.

SECOND FIELD MEETING, THURSDAY, 5TH JUNE, 1952—HAY DISTRICT :—The President, Major A. E. W. Salt, M.A., and upwards of sixty members and guests were present.

Apologies for absence were received from the Dean of Hereford, Mr. A. W. Slater and Father G. Buisseret.

In two coaches and a number of private cars the party left the City Library at 10 a.m. for Abbeydore. Here the church was visited and described by Mr. F. C. Morgan.

At Peterchurch, the party was met by Mr. R. S. Gavin Robinson who led the way to Snodhill, *via* the Roman road up the Golden Valley. At Snodhill the castle ruins and the Hall were visited by permission of Mr. E. F. Nash and a short history of them was given by the President.

Having met a tractor with a heavy trailer on the steep and narrow Dorstone Hill the party was somewhat delayed in reaching Arthur's Stone, where lunch was eaten. Mr. Gavin Robinson described the stone and pointed out fields where flint implements and stone axes were found, and the Rev. B. B. Clarke described a cornstone quarry nearby. He said :

The cornstones were a type of limestone, having a strictly limited distribution in the Lower Old Red Sandstone. Nothing quite like them is known in the New Red Sandstone, which covers so much of the Midlands of England. They occur in thin bands among the sandstones, usually from six inches to two feet in thickness. A bed may thin out even to nothing in quite a short distance, though some bands are more persistent. Sometimes the cornstones exhibit strong current bedding. The cornstones consist of a large number of fragments of rock cemented together. The curious thing about the fragments is that they are sometimes very angular, making

the term limestone breccia appropriate, and sometimes very well rounded when the rock could properly be called a limestone conglomerate.

The origin of these cornstones is still most obscure. It was clearly a rather special condition of climate that gave rise to them. The Lower Old Red Sandstone was believed to be formed under desert conditions. The cornstones with well-rounded fragments could have been formed in unusual periods of heavy rainfall, as do occasionally occur in deserts. The breccia cornstones pre-suppose frost, and this also occurs under desert conditions.

Mr. Clarke pointed out the similarity between the cornstones in the quarry and the rocks used at Arthur's Stone, and suggested that the stone used in the cromlech was very local and in all probability from the cornstone band at which they were looking.

With reference to a question from Prebendary Powell about the marble formerly quarried in the Golden Valley, he said he thought it was most likely to have been a very pure and highly ornamental variety of *Psammosteus* limestone.

Clifford church was next visited by permission of the Rev. H. C. Martin who gave an interesting description of the building.

The party then went on to Clifford castle where the recently excavated barbican was seen. (See illustration.) Air Commodore D. Iron who had been responsible for this (he has indeed done most of the work himself) showed members over the castle ruins.¹

From Hay members ascended the lower slopes of Hay Bluff through De la Hay forest by way of the Capel-y-flyn road. At 1,300 feet they emerged on to a fairly level platform which was described by the Rev. B. B. Clarke, who said,

they had been climbing fairly steeply since leaving Hay. A walk of a mile or so over the flat surface of the erosion bench would bring them to another steep climb to the top, which is 2,219 feet O.D. Seen from higher up the mountain the flat surface of the bench was more impressive than from where they stood. A river carrying in its water a load of sand and other rock fragments acts rather like a giant file on the surface of the earth and wears it down to an almost flat surface called base level. If uplift of the land occurs, the rivers are all rejuvenated and begin cutting down their valleys once more. Gradually they will wear away the old base level surface, except for a few odd fragments, which are the erosion benches. They represent the old base level of the rivers, in this case the Wye, before uplift occurred, which enabled the river to cut down further to its present bed.

Members then walked down the hill a little way to see a quarry in the Cusop Hill Flags, from which plants, especially *Cooksonia* and *Protolaxites*, had been obtained.

A reunited party had tea at the Crown Hotel, Hay, after which a business meeting was held.

The minutes of the meeting of the 15th May were read and confirmed.

In connection with the condition of the old church at Brockhampton near Ross, a letter had been received from the churchwardens, and had been passed to the Archdeacon.

The President announced that he had received a communication from the trustees of Mrs. Levick, who promised to look into the condition of the Eardisland dovecote.

¹ For description of the recent finds see p. 27.

A letter had been received from the Ministry of Works agreeing to the scheduling of the Dorstone Long Barrow, and asking for the usual particulars.

A letter had been received from the County Planning Officer stating that the report of the County Development Plan was to be printed and asking how many copies the Club would require.

The President, on behalf of the Club, expressed his gratitude to the guides for the day, the Rev. H. C. Martin, Mr. R. S. Gavin Robinson, the Rev. B. B. Clarke and Air-Commodore D. Iron.

Mr. D. C. Swabey, The Green, Withington, was declared elected.

Capt. O. B. Wallis said that he must protest against the methods of election as a committee meeting had not been called. The Hon. Secretary explained that this was not feasible in every case, the new members' names had been read out at the previous meeting and he (the Hon. Secretary) had consulted members of the Committee. The President said that it would appear that Capt. Wallis had inadvertently not been consulted on this occasion, and this was regretted. This concluded the business and the party returned to Hereford.

THIRD FIELD MEETING, SATURDAY, 12TH JULY, 1952—ROSS DISTRICT:—The President, Major A. E. W. Salt, M.A., and about seventy members and guests, including ladies, were present.

Leaving Hereford at about 2.45 in two coaches and a number of private cars, the first stop was made at Sellack church. This was described by the Vicar, the Rev. H. Roberts.

Afterwards the party, some on foot, proceeded to Caradoc Court where the members were unexpectedly but most hospitably entertained by Mrs. Heywood, who had heard of the visit. She most kindly allowed the house to be visited and acted as guide.

The next stop was at Ross where the church was visited and described by the Vicar, Preb. G. S. Stockley.

The Brownstones were seen at the cliff-like rock face at the entrance to Ross. This fine exposure was described by the Rev. B. B. Clarke. He asked members to notice the red colour and the strong current bedding, both characteristic of the Brownstones which formed the highest division of the Lower Old Red Sandstone. The higher ground behind Ross was made of the Quartz Conglomerate which forms the base of the Upper Old Red Sandstone, and this would be seen in the foundations of Goodrich castle. It also makes the high ground of Penyard Hill and Purland Chase. That the ostracoderm fishes, which are the characteristic fossils of the Lower Old Red Sandstone, had completely died out and been replaced by the ganoid fishes before the Upper Old Red Sandstone was laid down suggests a long time interval between these divisions, a contention that is strengthened by the fact

that the Quartz conglomerate rest on different members of the Lower Old Red Sandstone, forming an unconformity.

The party then went on to Goodrich castle where tea was taken. The castle's history was given by the President. Free admission to the castle was given by the Ministry of Works. Afterwards, a brief business meeting was held.

Apologies for absence were received from Mr. P. Bolt and Father G. Buisseret, who acknowledged the Club's letter of sympathy on his recent illness.

The Hon. Secretary reported that the Rev. H. E. Grindley, one of the oldest members of the Club, and a past President, had passed away, and that a letter of sympathy on behalf of the members had been sent to his widow, who had sent a letter of thanks for this.

Mr. W. H. Ellis had lost his wife and wrote to thank the Club for a letter of sympathy.

The following gentlemen were proposed for membership :— Mr. G. W. Mawson, 129, Grandstand Road, Hereford ; Mr. Harold Dalston-James, A.M.I.Mech.E., 245, Ross Road, Hereford ; Rev. H. Rook, M.A., The Vicarage, Weobley ; Rev. George Henry Dyer-Wright, The Rectory, Much Birch.

On the journey home Treago Castle was visited by kind permission of the Very Rev. C. A. Alington, D.D.

FOURTH FIELD MEETING, THURSDAY, 24TH JULY, 1952—
LLANDRINDOD WELLS DISTRICT :—The President, Major A. E. W. Salt and about sixty members and friends took part in this meeting, leaving the City Library at 9.30 a.m. and going first to Byford, where the Rev. B. B. Clarke described the finding of the 14th century painting of St. Margaret on the south wall of the south chapel of the church. During the re-decoration of the wall signs of colour appeared as whitewash was flaked off, eventually exposing the best example of a mural painting in Herefordshire. (See illustration.)

The next stop was at Kington, where the church was described by Major A. E. W. Salt. After this, the party proceeded to Stanner Rocks, and the geological features of these were explained by the Rev. B. B. Clarke. He said

the three adjacent hills, Stanner, Hanter and Worsel were all part of a great intrusion of basic igneous rock mainly of the composition of gabbro. It was a white and dark green speckled rock the white mineral being Plagioclase and the green mineral Augite. The exact age of this intrusion was rather uncertain but the accessory minerals present in small quantities suggested a close similarity with intrusions in Shropshire which could be shown to be of Precambrian age. Being a rather striking

looking rock the Stanner gabbro had been used by A. R. Dwerryhouse and A. A. Miller to trace the extent eastwards of the Wye glacier in the latest of the four Pleistocene glaciations. The ice picked up this rock and carried it embedded in the sole of the glacier till the ice melted. The trails of Stanner erratics had been traced as far east as Crick's Green.

Disserth was reached about 1 p.m. Here Mr. W. H. Howse gave a description and short history of Dissers church, Builth castle, and Llanfereidd church. The first church was then carefully examined by members of the Club, who congratulated the Rector, the Rev. W. E. Davies, on his successful effort to save this extremely interesting building from falling into decay.

After lunch, the party visited Builth castle site by permission of the owner, and next went to Llanfereidd, and to New Radnor for tea at the Eagle Hotel. Here the business of the Club was transacted :—

The minutes of the meeting on the 5th June and 12th July were read and signed by the President.

Mrs. Heywood of Caradoc Court had written twice to the Secretary and to Mr. Templer to express her pleasure at the recent visit of the Club to Caradoc.

The President reported that he and Mr. C. Evans had been with a representative of the County Council to Field Farm, Hampton Bishop, to inspect some fine specimens of *Sequoia wellingtonia*. They had also seen the 'emperor oak' in the park at Holme Lacy, which measured 25 ft. 1 in. at the height of three feet from the ground, and the 'trysting oak' which measured 36 ft. 5½ in.

The following gentlemen were proposed for membership :— Lt.-Col. H. Doyle, of Hampton Croft, and Mr. H. E. Pile, of Hunderton Road, Hereford.

The party then journeyed to Old Radnor where the church was described by Mr. Howse, who pointed out the many interesting features of the building and its furniture. The return to Hereford completed an exceptionally interesting field day.

FIFTH FIELD MEETING (LADIES' DAY), THURSDAY, 14TH AUGUST, 1952—BURFORD DISTRICT :—The President Major A. E. W. Salt, M.A., and about one hundred members and guests were present. Leaving the City Library in three coaches and a number of private cars the party first went to Brunner's Cafe in Cheltenham, where coffee was served.

The next stop was at Northleach, where the church was described by the President. A picnic lunch was eaten between Northleach and Burford, and was followed by a short business meeting.

The minutes of the meeting of the 24th July were read and adopted.

Apologies for absence were received from the Dean of Hereford, Messrs. Yeomans, Parker, Prichard, and Johnston.

The Hon. Secretary reported the death of Lord Chesterfield, who had been a member of the Club. Members stood in silence to his memory.

A letter of thanks had been received from the Royal Archaeological Institute for the help given by the Club in making the meeting in Hereford a success.

A letter was received from the University of Bristol Research Station at Long Ashton saying that a museum orchard for perry pears was being established and asking for information of old and rare varieties.

Mr. R. S. Gavin Robinson wrote to say that quarrying near Arthur's Cave was causing anxiety; that he hoped to commence excavations at Craswall in August; and that Miss Anthony of Bath was prepared to catalogue the Poston camp finds. He asked the Club to make a grant of £10 for her travelling expenses. It was proposed by Capt. O. B. Wallis, seconded by Mr. G. H. Butcher, that this request be granted. The proposal was carried unanimously.

The Hon. Secretary announced that he had a few copies of the pamphlet "Herefordshire Birds" for sale. Also that Miss Bull had a copy of "Herefordshire Flora" for sale.

The following gentlemen were declared elected:—Col. C. S. Young, Little Peterstow Orchard, Ross; Mr. P. G. S. Bayliss, 15, Walnut Tree Avenue, Hereford; Mr. H. W. Redcliffe, 35, Mount Crescent, Tupsley; the Rt. Rev. K. G. Bevan, Woolhope Vicarage; Mr. G. W. Mawson, 129, Grandstand Road, Hereford; Mr. Harold Dalston-James, 245, Ross Road, Hereford; Rev. H. Rook, The Vicarage, Weobley; Rev. G. H. Dyer-Wright, The Rectory, Much Birch; Lt.-Col. H. Doyle, Hampton Croft, Hampton Bishop; Mr. H. Pile, 2, Hunderton Road, Hereford.

The following gentlemen were proposed for membership:—Mr. R. Williams, 73, College Road, Hereford; Sir Chandos Hoskyns-Abraham, Little Bogmarsh, Holme Lacy.

The party then went on to Burford where the church was described by the Vicar.

The next stop was to see the circle of seventy stones at Rollright. Here the Hon. Secretary spoke of the legends connected with them, and described them as a "parish church" of the Neolithic period.

After this the party proceeded to Chastleton House. This is a fine early 17th century Cotswold mansion, still in the possession of the Whitmore Jones family, the descendants of Walter Jones who built it. Here tea was served.

This concluded the visits of the day, and the party returned to Hereford *via* Broadway.

SIXTH (HALF-DAY) FIELD MEETING, SATURDAY, 13TH SEPTEMBER, 1952—LEOMINSTER DISTRICT:—Some sixty members and friends met at Orleton at about 3.15 p.m. Apologies from the President, Major A. E. W. Salt, and the Rev. B. B. Clarke having been received, Mr. P. J. T. Templer was elected Acting President for the day.

The architecture and interesting features of the church were described by the Hon. Secretary in the unavoidable absence of the Vicar, the Rev. Vivian Jones, who had kindly put the registers and church plate on exhibition in the vestry.

The party then went to Orleton Manor, where they were welcomed by Col. and Mrs. T. A. Hill, who kindly gave them light refreshments. The house was then inspected, and a panelled room in which Charles I is said to have once slept, and another occupied by Alexander Pope, who had fallen in love with a member of the Blount family (former owners of the Manor) were among the many items of interest that were seen. Colonel and Mrs. Hill were heartily thanked by the Acting President on behalf of the Club.

The next stop was at Richard's Castle old church, which was described by the Hon. Secretary, whose remarks were supplemented by Mr. Templer, who also gave a description of the armorial bearings in the church. The party then had a picnic tea.

Eye Manor was afterwards visited by permission of Mr. and Mrs. Christopher Sandford who graciously welcomed the party. The former gave a history and description of the manor house.¹ After thanks had been offered to Mr. and Mrs. Sandford for their kindness by the Acting President the party returned to Hereford.

FIRST AUTUMN MEETING, THURSDAY, 9TH OCTOBER, 1952:—The President, Major A. E. W. Salt, in the chair, and many members and guests were present.

The minutes of the meetings of the 14th August and 13th September were read and confirmed.

The President expressed regret for his inability to attend the last meeting. Apologies were received from the Ven. A. J. Winnington-Ingram and the Rev. J. T. Clapperton.

Mr. J. N. Jackson produced a plan of Arthur's Cave, which has been scheduled, and explained that quarrying would not be allowed nearer than 115 yards. In reply to Mr. R. S. Gavin Robinson he said that the cave only had been scheduled.

Mr. Gavin Robinson reported that Miss Anthony had collected the papers, pottery, *etc.*, and that the work of describing the excavations at Poston was now in hand.

¹ Printed on pp. 24-27.

The President announced with regret the death of four members of the Club: Mr. G. H. Jack, an honorary member; Col. Kyrle Ffrench; Rev. J. W. Roberts; and Mr. J. W. Cole, and the members stood in silence in their memory. Letters of sympathy with the families of the deceased had been sent.

A letter had been received from Mrs. F. Leeds asking for information or loan of documents and photographs that members may have relating to the early history of the Post Office in Herefordshire.

Col. T. W. M. Johnson exhibited a bronze spearhead¹ which had been found some months before by a pupil of the school at Whitchurch in a quarry, on the side of Great Doward. He also showed a flint scraper found in his orchard at Hall Green. Other flints were exhibited as follows:—

Three from Mr. Harris's farm (Little Upcotts field) at Birley. Flint arrowhead of late Neolithic period from Poston. An early Bronze Age hollow butted arrowhead from Woodland Farm at Harewood.

Mr. G. Tait of Weobley then gave details of a grandfather clock which he exhibited. This was made by T. Banister who lived from 1669 to 1750 and is buried in Weobley churchyard. His tombstone is close to the north porch and is inscribed: "In memory of Thomas Banister, clockmaker who died February 20th, 1750, aged 81". He also showed an old lantern clock. Mr. Tait was thanked by the President for his visit.

The following gentlemen were declared elected:—Mr. R. Williams, 73, College Road, Hereford; Sir Chandos Hoskyns-Abrahall, Little Bogmarsh, Holme Lacy. Mr. Randal L. Powell, Lower Hill, Hereford, was proposed for membership.

A paper on "The Glaciation of Herefordshire" prepared by the late Rev. E. H. Grindley was then read by the Rev. B. B. Clarke, M.A., M.Sc. This will be printed in the Centenary volume.

SECOND AUTUMN MEETING, TUESDAY, 21ST OCTOBER, 1952:—The President, Major A. E. W. Salt, in the chair, with a good attendance of members and guests.

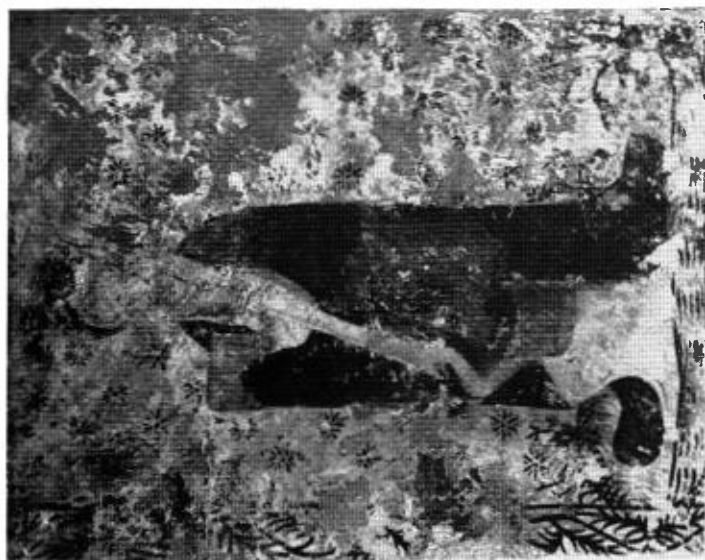
An apology for absence was received from the Rev. B. B. Clarke.

The minutes of the meeting of the 9th of October were read and confirmed.

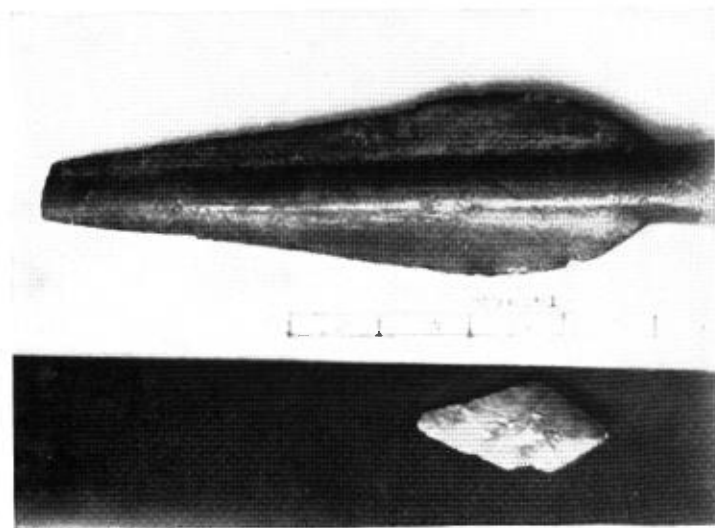
The following gentleman was declared elected:—Mr. Randal L. Powell, Lower Hill, Breinton.

Mr. Gardner Tait, Portland House, Weobley, was proposed for membership.

¹ A description of this by Miss Chitty is printed on pp. 21-23. See also illustration.



Photographs by F. C. Morgan.
St. Margaret. Mural painting in Byford Church.



Bronze spearhead
from Poston.
Flint arrowhead from
Whitchurch.

The Hon. Secretary announced that it was hoped that the George Marshall Library would be unveiled by Mrs. Marshall on 11th December.

Mr. J. E. M. Mellor, M.A., then read extracts from his paper on the "Mammals of Herefordshire". The paper had been written for the Centenary volume.

A vote of thanks to Mr. Mellor was proposed by Mr. P. J. T. Templer, seconded by Dr. Baker and carried.

THIRD AUTUMN MEETING, THURSDAY, 13TH NOVEMBER, 1952 :—
The President, Major A. E. W. Salt, and a large number of members and guests were present.

The minutes of the meeting of the 21st October were read and confirmed.

An apology for absence was received from Col. T. W. M. Johnson.

The Hon. Secretary announced that Mrs. Marshall had agreed, health permitting, to unveil the George Marshall Library, on 11th December.

The Annual Report on the status of the kite had been received.

Mrs. Leeds of Ross sent for exhibition a fragment of pottery and a flint flake. The pottery was identified as Roman of the 3rd century A.D. Both had been found on Mr. Baynton's farm at Ross.

Mr. Gardner Tait of Portland House, Weobley, was declared elected.

Mr. D. R. Dudley, M.A., then read a paper on "The Herefordshire Area in the Roman Period" which had been written for the Centenary volume. At the conclusion, Mr. Dudley referred to the work of the Hereford group of the West Midlands Archaeological Survey and of their assistance in preparing the paper.

A vote of thanks was proposed by the Rev. B. B. Clarke and was seconded by Rev. Prebendary S. H. Martin, who, as a member of the Hereford group, said how grateful they were to Birmingham University, which Mr. Dudley represented, for the excellent lectures on archaeology provided without charge.

FOURTH AUTUMN MEETING, TUESDAY, 25TH NOVEMBER, 1952—
Mr. P. J. T. Templer was voted to the chair in the absence of the President. A large number of members and guests were present.

Apologies were received from the President, Major A. E. W. Salt, and from the Rev. B. B. Clarke.

The deaths of Vice-Admiral F. P. Loder-Symonds and Mr. E. H. Morris were reported and the meeting stood in silence. It was agreed that letters of sympathy be sent to the next of kin.

The minutes of the meeting of the 13th November were read and passed.

Three short papers were then read:—

(1) "Local Iron Manufacture in the time of Charles II", by W. C. M. Mynors, M.A., was, in the absence of the author, read by Mr. F. C. Morgan. (Printed on pp. 3-8.)

After reading this paper, Mr. Morgan said that the copy unexpectedly reached him on the day he was photographing modern methods of charcoal burning near Ottery St. Mary. He compared this with the way it was carried out in Herefordshire in the 17th century as recorded in the *Transactions* and found that exactly the same measurements for a cord of wood were in force down the years—8 ft. x 4 ft. x 4 ft. Any kind of wood is used for charcoal today; it is cut into 4 ft. lengths where felled and carried to large circular iron kilns made in two stages. Each kiln holds $2\frac{1}{2}$ cords at a time, which produced 20 bags of charcoal. A number of kilns were at work, and a large wood had been devastated. (See illustrations.)

(2) "The Canon who Rhymed" by Preb. S. H. Martin, which dealt with Simon de Freine, a canon of Hereford Cathedral, son of the lord of Sutton and Moccas and also a poet. (Printed on pp. 8-10.)

(3) "Hereford and Ottery St. Mary Church" by F. C. Morgan, illustrated by slides. This dealt with the work of Hereford masons, taken to Devonshire by Bishop John de Grandisson of Exeter, who was a son of Sir William de Grandison of Ashperton. (Printed on pp. 13-15, with illustrations.)

Mr. Templer thanked the authors on behalf of the Club for their very interesting papers and it was agreed that a letter of thanks be sent to Mr. Mynors.

WINTER ANNUAL MEETING, THURSDAY, 11TH DECEMBER, 1952 : Those present were Major A. E. W. Salt, M.A., President, in the chair, The Rt. Rev. the Bishop of Hereford, Col. T. W. M. Johnson, Mr. P. J. T. Templer, the Ven. A. J. Winnington Ingram, Messrs. I. Cohen, A. F. Heath, G. H. Fletcher, the Rt. Rev. K. G. Bevan, Mr. J. P. Smith, Capt. O. B. Wallis, the Very Rev. H. R. Burrows, Messrs. G. H. Butcher, Norman W. Marriott, Hubert J. Powell, C. J. Wingate, F. Chapple, W. J. King, Preb. S. H. Martin, Messrs. G. P. Jones, A. U. Zimmerman, F. T. Hocking, W. G. Farmer, W. H. Ellis, J. Cecil Price, Dr. J. R. Bulman, Dr. C. W. Walker, Canon J. H. Jordan, Messrs. J. E. M. Mellor, H. M. Prichard, L. H. Parker, Alex. Johnston, Sir Chandos Hoskyns-Abrahall, Messrs. W. G. Dawson and Arthur Wood, Dr. A. W. Langford, Rev. B. B. Clarke, Messrs. R. Williams, D. C. Swabey, C. N. Spinks,

To face page xvi.



Photographs by F. C. Morgan.

1. Sacks of charcoal ready for despatch
2. Metal kilns in use near Ottery-St. Mary, 1952.
3. Filling sectional metal kiln.

P. G. S. Baylis, D. Grigg, H. J. Davies, C. Evans, Rex Palmer, F. M. Kendrick, D. R. Dudley, E. H. Cope, T. V. Milligan, J. E. E. Oakley, A. Shaw Wright, S. W. Inman, W. J. Lewis, A. L. Mann, Lt.-Col. H. Doyle, Mr. V. H. Coleman, and Mr. F. C. Morgan, Hon. Secretary.

Apologies for absence were received from Mr. W. H. Howse and Mr. F. Leeds.

It was resolved that letters of sympathy be sent to the Very Rev. Dean Waterfield, Major Caple, Mr. H. Pugh, Mr. A. W. Marriott, and Mr. R. S. Gavin Robinson, who were absent through illness.

The President, in introducing Mrs. Marshall, who had come to unveil the George Marshall Library, said that two years had gone by since there passed from their ranks a great gentleman, a great scholar and a gracious friend. Mr. George Marshall was descended from a family which had taken a great interest in the old and lovely things of the county. To paraphrase a Latin phrase used to describe Christopher Wren "There was nothing of archæology in the county of Herefordshire which Mr. Marshall did not touch and adorn". His memory would not only be enshrined in their hearts, but also in the wonderful library which he had bequeathed to the Club.

After unveiling the library, Mrs. Marshall said her husband liked to think that one day his books would go to the Woolhope Club to be read by his friends.

Moving a vote of thanks to Mrs. Marshall, the Ven. A. J. Winnington Ingram said the members felt very grateful for the effort she had made to be present. They would always remember the kindness, generosity and helpfulness shown by the Marshall family to the Club.

Mr. F. C. Morgan, who presented a bouquet to Mrs. Marshall on behalf of the Club, seconded and said that it was a moving time for him personally. He felt the Club owed much to Mrs. Marshall for unveiling the library, which was rich in a variety of subjects.

Mr. H. Marshall, responding on behalf of Mrs. Marshall, said his family was pleased to think that the books were going to the Woolhope Club. The Club, he felt, owed thanks to Mr. Morgan, who had spent much time in cataloguing the volumes.

The Minutes of the meeting of 10th April, 1952, were read and confirmed.

Officers for 1953 were then elected :—PRESIDENT, Mr. I. Cohen, proposed by the Very Rev. Hedley Burrows, seconded by Preb. S. H. Martin; VICE-PRESIDENTS, Major A. E. W. Salt, proposed by Capt. O. B. Wallis, seconded by Mr. I. Cohen, Col. T. W. M. Johnson, proposed by Capt. O. B. Wallis and seconded by Mr. A. U. Zimmerman, Rev. B. B. Clarke, proposed by the Lord Bishop of Hereford and seconded by Dr. C. W. Walker, the Ven. A. J. Winnington Ingram, proposed by the Lord Bishop of Hereford and seconded by Dr. C. W. Walker; COMMITTEE: The retiring members

were the Rt. Hon. Lord Rennell, Col. T. W. M. Johnson, Dr. H. J. Langdale-Smith, and Mr. H. M. Prichard, and the following were elected, Dr. B. G. F. Levy, proposed by the Rev. B. B. Clarke and seconded by Mr. F. M. Kendrick, Dr. C. W. Walker, proposed by Capt. O. B. Wallis and seconded by Col. T. W. M. Johnson, Mr. J. N. Jackson, proposed by Mr. I. Cohen and seconded by Mr. A. Shaw Wright, Dr. H. J. Langdale-Smith, proposed by Dr. C. W. Walker and seconded by Mr. A. U. Zimmerman; HON. SECRETARY, Mr. F. C. Morgan; HON. TREASURER, Mr. P. J. T. Templer; HON. LIBRARIAN AND DELEGATE TO SOCIETY OF ANTIQUARIES, Mr. F. C. Morgan; HON. LANTERNIST, Mr. Basil Butcher; HON. AUDITOR, Mr. H. Slater Widgery; IN CHARGE OF COVENANT SCHEME, Mr. L. S. Parker; EDITORIAL COMMITTEE, the Ven. A. J. Winnington Ingram, Mr. W. H. Howse, Major A. E. W. Salt, and the Hon. Secretary; SECTIONAL EDITORS: Archæology, Mr. I. Cohen and Preb. S. H. Martin; Botany, Major A. E. W. Salt; Geology, the Rev. B. B. Clarke; Ornithology, Capt. H. A. Gilbert and Dr. C. W. Walker.

The Hon. Secretary reported that now work on the George Marshall Library was completed, that on the Centenary volume would begin early in the new year.

It was resolved to hold whole day Field Meetings in the Forest of Dean (including Lydney), and the Evesham district in 1953 as recommended by the Central Committee. A suggestion by Mr. Shaw Wright, that the Ledbury area also be visited, would be considered for one of the other Field Meetings.

It was agreed to hold Saturday half-day meetings in the Ludlow and Whitchurch areas.

Dr. C. W. Walker then gave his report on ornithology. (See pp. 29-30.)

Reports on Archæology by Mr. I. Cohen and Preb. S. H. Martin concluded the meeting. (See pp. 30-35.)

WOOLHOPE NATURALISTS' FIELD CLUB (HEREFORDSHIRE)
HONORARY TREASURER'S CASH ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 1952.

RECEIPTS.	£	s.	d.
To BALANCE, 1st January, 1952:			
Cash at Bank	161	15	9
Cash in Hand	4	6	11
	166	2	8
Interest on £832 14s. Od. 3½ per cent. War Stock	29	2	10
Proceeds of Sale of <i>Transactions</i>	22	3	5
Subscriptions: 1951	6	0	0
1952	344	10	0
1953	8	10	0
Donation	1	0	0
Income Tax recovered	58	13	8
Covenant Scheme	28	17	8
Surplus on Field Meetings			

AUDITOR'S CERTIFICATE.

I have audited the above Honorary Treasurer's Account, together with the General Reserve Account, Merrick Bequest Account and Benn Bequest Account, and certify them to be in accordance with the books and vouchers of the Woolhope Naturalists' Field Club.

HERBERT S. WIDGERY, F.C.A.,
Honorary Auditor.
9th February, 1953.

PAYMENTS.	£	s.	d.	£	s.	d.
By Fire Insurance	286	12	0
" Printing	20	12	1
" Stationery	29	5	2
" Postage			
" Bookbinding and erection of Shelves for the George Marshall Library			
" Subscriptions:				336	9	3
Severn Wildfowl Trust			
British Mycological Society	2	2	0
Council for British Archæology	1	0	0
Harleian Society	1	0	0
Cambrian Archæological Society	3	3	0
Bristol & Gloucester Archæological Society	1	5	0
Salary of Assistant Secretary	2	2	0
Telephone Calls—Honorary Secretary			
Expenses of Seven Year Covenant Scheme	20	0	0
Purchase of <i>Transactions</i>	1	10	0
Caretaker of Public Library			
Cleaning	2	2	6
Bank Charges and Cheque Books	3	11	0
Carriage	1	0	
Balance—31st December, 1952:						
Cash at Bank	251	0	4
Cash in Hand	7	1	9
				258	2	1
				£665	0	3

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GENERAL RESERVE ACCOUNT
YEAR TO 31st DECEMBER, 1952.

1952		RECEIPTS.		1952		PAYMENTS.		1952	
1st Jan.	To	Balance at Bank	...	1st Jan.	£ s. d.	31st Dec.	By	Balance at Bank	£ s. d.
31st Dec.	"	Interest	...	31st Dec.	125 14 2	...	...	...	127 17 8
			...		2 3 6				...
			...		£127 17 8				£127 17 8

P. J. T. TEMPLER,
Honorary Treasurer.

MERRICK BEQUEST ACCOUNT
YEAR TO 31st DECEMBER, 1952.

1952		RECEIPTS.		1952		PAYMENTS.		1952	
1st Jan.	To	Balance at Bank	...	1st Jan.	£ s. d.	31st Dec.	By	Balance at Bank	£ s. d.
31st Dec.	"	Interest on $\frac{3}{4}$ per cent. War Stock	...	31st Dec.	23 17 5	...	...	...	27 15 8
31st Dec.	"	Interest	...		3 10 0				...
			...		8 3				...
			...		£27 15 8				27 15 8

P. J. T. TEMPLER,
Honorary Treasurer.

BENN BEQUEST ACCOUNT
YEAR TO 31st DECEMBER, 1952

1952		RECEIPTS.		1952		PAYMENTS.		1952	
1st Jan.	Balance at Bank	1st Jan.	£ s. d.	31st Dec.	By	Balance at Bank	£ s. d.
			...		1 0 6		...	...	1 0 6
			...		£1 0 6				£1 0 6

P. J. T. TEMPLER,
Honorary Treasurer.

MR. G. H. JACK, M.I.C.E., F.R.I.B.A., F.S.A., F.G.S.

DISTINGUISHED CAREER

His many Herefordshire friends heard with regret of the death on 21st September, 1952, of Mr. Gavin Heynes Jack, who was for 26 years surveyor to the Herefordshire County Council, and who rendered distinguished services to the Woolhope Naturalists' Field Club.

Mr. Jack, who was born at Warwick in 1874, was from 1889 to 1893, an articled pupil of the late Mr. E. M. Richards, then borough and waterworks engineer to the Warwick Corporation. In the latter year he was appointed second engineering assistant to the Pontypridd Urban District Council, and two years later became deputy surveyor to the Caerphilly Urban District Council.

Leaving for the Midlands in 1897, Mr. Jack was appointed deputy surveyor to the Aston Manor Urban District Council (afterwards the borough council), and three years later he became chief engineer and surveyor to the Aston Manor authority. In 1901 he became chief engineer of the Aston, Handsworth, Smethwick and Erdington Main Drainage Board.

In 1907, he was appointed county surveyor, architect and bridgmaster to the Herefordshire County Council, and he served until his retirement in 1933. In 1926, he was relieved of the post of architect, when a new office was created to supervise, solely, the ever expanding building programme.

Mr. Jack carried out several important road schemes, but it was in connection with bridge work that he made for himself a national reputation—on one occasion a leading daily newspaper referred to him as "England's greatest bridge saver". He was particularly devoted to Wilton bridge at Ross, which he regarded as the finest bridge in the county. The preservation of this bridge was to him a labour of love. In 1913 and 1927, he carried out extensive works to strengthen the bridge, without in any way spoiling its external beauty, and it must have been a source of bitter regret to him that during the 1939-45 war the bridge suffered impairment.

That he still maintained a devotion for the structure was manifested in 1949, when he wrote to the *Hereford Times* a letter supporting the county council's opposition to a ministerial scheme to erect visible ferro-concrete additions.

Incidentally, the Society for the Protection of Ancient Buildings presented Mr. Jack with two water colour paintings of Wilton bridge in recognition of his work.

Other bridges which notably owe much of their present state to Mr. Jack are the Wye bridge at Hereford, and the Eardisland

bridge, while he supervised the reconstruction of the bridge over the Lugg at Aymestrey, and of the Bredwardine bridge.

Mr. Jack, throughout his stay in Hereford, was one of the "great names" of the Woolhope Club, of which he was president in 1915.

Probably his greatest contribution to the club, and to the world of archaeology in general, lay in the years he spent in excavating the site of the old Roman camp of Magna Castra at Kenchester. He succeeded in reconstructing the plan of the camp, and, under his supervision, many important discoveries were made. Among these are two mosaic pavements, the major portions of which are now affixed to a wall in the entrance lobby of Hereford City Library. With Mr. A. G. K. Hayter, Mr. Jack published two books on the excavations.

Mr. Jack discovered the foundations of the round church of the Knights Templar at Garway.

An expert geologist—he was elected a Fellow of the Geological Society at the age of 19—Mr. Jack was editor of the Woolhope Club's geological section.

In 1932, he discovered three new species of old red sandstone fossil fishes at Wayneherbert, which are now in the British Museum. One of these is named after him.

The Hereford City Council also owe to him and to two friends the gift in 1933 of two ancient pewter tankards, dated 1667 and 1669, which were formerly pieces of the corporation plate, lost for many years.

In 1902, he married Miss Alice Louisa Jenks, of Cardiff, by whom and one son he is survived.

Woolhope Naturalists' Field Club.

PAPERS, 1952.

IRON MANUFACTURE UNDER CHARLES II

By H. C. B. MYNORS, M.A.

Read 25th November, 1952.

The early history of iron manufacture in Herefordshire has been discussed by Mr. Rhys Jenkins¹, and Mr. E. W. Hulme² has clarified the figures for the early eighteenth century: but among the Scudamore MSS. in the British Museum³ are some fragments of information for the second quarter of the seventeenth century that may have escaped notice.

On the 4th March, 1628, Sir John (soon to be the first Viscount) Scudamore of Hom Lacy made an agreement (fols. 6, 7) with his cousin William Scudamore of Ballingham for the construction of an iron forge on the latter's land at Carey Mill near Ballingham.⁴ The two parties were to share equally the cost of erection and the expenses of manufacture: but the main object of the enterprise appears in the next clause, that the forge should use Sir John's coppice wood (*see* Appendix I) up to 21 acres a year, any further requirements being bought in. The wood must be at least 15 years old, and eight weeks in drying between cutting and cording.

The first charge on receipts was to be the amount due to third parties for the raw iron, wages, carriage, *etc.*: thereafter Sir John was to be paid for his wood three shillings a cord of the standard size, namely four foot long in the billet, four foot high and eight foot long, with a minimum diameter of two inches. The cost of carriage was to be standardised on the basis of three miles, so that if wood were used from four miles away an equal quantity must be supplied from within two miles. (This was only fair to the partnership, for profits might be prejudiced by the extra cost of carriage while Sir John's farthest woods, as listed in Appendix I, were being exploited.) William Scudamore could supply wood, if he wished, at the same price as his cousin. The clerk of works was to make up the accounts in May and October, and any clear profit was to be divided equally between the two partners.

The term of the agreement was to be 21 years, if supplies of wood and iron held out so long, from the 2nd October, 1628, by which date the forge was to be ready. Either party could give up at the end of the first two years, on six months' notice, but he would get nothing back for his share of the capital cost. If either died, his heirs could not withdraw: nor could any interest in the

partnership be assigned without the consent of the co-partner. Provision was also made for securing the use of the site and the supplies of wood, should either party in fact relinquish his interest.

The details of this agreement may not be typical, but they exemplify the well-known attraction of iron manufacture for landowners with ample woodlands. How long Carey Forge was at work we do not know; but subsequent folios show the first Viscount Scudamore taking a keen interest in its welfare. He was concerned not only with the profit at Carey, but also with the price he could get for his wood from Gilberts Hill and elsewhere at Abbey Dore: and he saw the virtue of comparing his costs with those of his neighbours. As a result we have a series of rough estimates of the costs of refining the raw iron or "sow iron" produced by the furnace into bar iron or "marchant iron" at the forge, which certainly do not all refer to Carey. The series is as follows:

fol. 60—"A perfect note of the trewe charge of the makinge of one tunne of Barr Iron at Pantriles forge even from Mr. Kyres (*sic*) furnes doore untill it come to Bristol."

61—"The charge to make a Tune of Marchant Iron at the forge."

62—"What I loose by selling doores wood (*i.e.*, wood from Dore) at 22d. the cord."

64—"To guess what a cord of wood may bee worth."

65—"The Charge of a Tonn of Iron as itt now stands us in the makinge."

67—"The Charge of making a tunne of Barr=Iron at Cary Forge 24 Dec 1630."

68—"The charge of making a tunne of merchant Iron."

70—"My cosen James Baskerville's guess of his charge to make a tunne of Iron of my wood."

70v—"To make a tunne of fine-iron" (little more than rough working).

These calculations are not in identical form, nor all of the same date: so that it is not possible to compare costs at different forges. Fol. 65 is reproduced in Appendix II as a specimen: and notwithstanding the uncertainties of place and date, it may be admissible to reduce the estimates to a typical statement of the cost of production in a south Herefordshire forge about 1630. In doing so, it must be remembered that the given figure to an individual forge at any time was the selling price of a ton of bar iron at Bristol: and that the cost of carriage varied with the situation of the forge in relation to the furnace from which it drew its raw iron, and with the distance of the forge from its source of fuel. The economic price of cordwood thus tended to be the residual figure: if carriage was dear wood was cheap, and so the range of costs must have been in practice somewhat less than the following figures suggest.

Beginning with the cost of fuel, it took three cords of wood (fol. 67 says 2½ and fol. 64 says 2½) to make a load of coal. A glimpse of the process can be seen in the agreement already cited: the purchasers of the wood must have "reasonable and convenient wayes allowed . . . for the cariage of the Cole ariseinge of the woode . . . wth libtie (liberty) to take turfe buyld Cabbines make cole pittes and such other necessities for cuttinge of the said wood and makeinge of the said Cole". For every load, cutting and cording cost from 2s. 6d. to 3s. 6d. (cutting 3s., cording 6d.) and the collier got 2s. 6d. for coaling it. Carriage might vary from 2s. to 4s. a load, one calculation (fol. 64) putting it at 1s. 4d. a mile. Thus costs from standing timber to forge might range from 7s. 6d. to 10s. 6d. a load, the commonest figure being 8s. 6d.

The cost of the wood itself varied more. James Baskerville's "guess" (fol. 70) allowed 5s. a cord, while Viscount Scudamore was very dissatisfied with the 1s. 10d. a cord which Pontrilas forge was paying him for his wood from Dore: he reckoned he ought to get another 1s. 4d. (fol. 62). Carey, as we have seen, paid 3s.: and the total cost of a load of coal delivered at the forge might be put at 17s. 6d. to 23s. 6d. It took three loads of coal to make a ton of bar iron, making a fuel cost per ton of 52s. 6d. to 70s. 6d., although in practice it seems likely that the highest practicable cost was about 65s.

For every ton of bar iron was needed 26 cwt. of raw iron at £5 or £6 a ton, say £6 10s. or £7 16s. per ton of finished product. Refining and hammering each cost 10s. a ton, and carriage to Bristol is reckoned at 13s. a ton from Carey or from Pontrilas. There is no consistency about the treatment of standing charges, but the most usual figure for 'extraordinary charges and Clerk's wages' is 6s. 8d. a ton. Only three of the estimates allow for rent and interest on capital ("use of stock"). The rent of Pontrilas forge (fol. 60) was £80 a year, or 10s. a ton on an estimated annual output of 160 tons (fols. 60, 62). Working capital at the same forge was put at not less than £400, 10 per cent on which would be 5s. a ton (fol. 60): the figure for "stock" at Carey (fol. 67) was 8s. a ton. Omitting rent and interest, costs per ton may be thus summarised:

Fuel	52s. 6d. to 70s. 6d.	
Raw Iron	130s. 0d. to 156s. 0d.	
Refining and hammering	20s. 0d.	
Standing charges	6s. 8d.	
Carriage to Bristol, say		209s. 2d. to 253s. 2d.
		13s. 0d.
		222s. 2d. to 266s. 2d.

The cost of a ton of bar iron at this time was therefore in the range £11 to £13 10s.:—the actual figure for Carey in December, 1630 (fol. 67) being £13 2s. 9d. At Pontrilas (fol. 60) the more or less comparable figure was £11 1s. 5½d., showing a margin of nearly 50s. below the Bristol price of £13 10s.; out of which to find rent, interest and profit.

Lord Scudamore's dissatisfaction with the revenue from his woods at Dore may have borne fruit, for fol. 78 represents part of an agreement, without date or signature, for building a forge at Whitchurch. It is not known whether he was ever active in a forge there, but by this agreement he was to build the forge or find £300 for the purpose: to find 200 ton of sow iron a year at £4 10s. a ton, delivered Whitchurch: and to provide up to £500 of working capital at interest, repayable at the end of the agreement. In return his partners (whoever they may have been) contracted to take 1,500 cord of wood yearly from Gilberts Hill and his other woods at Dore, at 5s. a cord. This represents another type of agreement, in which one party put up all the capital, and the other party managed the forge: but the former got not only a return on his money but also a market for his wood.

There were other dissatisfied people too. The public outcry at the excessive consumption of woodlands by ironworks is well known: but it may be added that fol. 71 is a copy of the petition to Parliament of the Justices of co. Hereford, dated the 8th January, 1649, praying for the suppression of ironworks: which was followed up by a letter (fol. 73) to Lord Scudamore on the 21st January, 1649 from the Corporation of Hereford, urging him not to proceed with the erection of a forge near Hom Lacy, but rather to help them in getting all the weirs on the Wye pulled down. A long reply is preserved in draft on fol. 75 and 76.

These papers throw a little more light not only on the activity of iron manufacture in the county at a fairly early date but also on the enterprise of a man best known to many as the restorer of Abbey Dore.

POSTSCRIPT.—The opportunity may be taken to add a little more information on the furnace at St. Weonard's. The earliest reference to this that Mr. Rhys Jenkins knew dates only from 1680, but there was an oral tradition, recorded⁵ by the Rev. John Webb in 1834, that the furnace was working when the Scots were plundering in Herefordshire in 1645. It was then in the same occupation as the forge at Llansilo, the clerk of both being Richard Kemble.* In May, 1662 it was on lease to William Hall.⁶ Subsequent references in 1695 and 1717 are given by Mr. Rhys Jenkins: and the inscription on the surviving building records that the furnace was rebuilt in 1720 by William Rea, who was probably the well known Monmouthshire ironmaster of that name.⁷

* A George Kemble of Pembridge Castle leased a forge at Whitchurch from the earl and countess of Kent in 1633. See *Transactions*, 1943, pp. 110-113 (Ed.).

NOTES—

¹ Rhys Jenkins: *Industries of Herefordshire in Bygone Times in Trans. Newcomen Soc.*, XVII (1936-37), p. 176.

² E. W. Hulme: *Statistical History of the Iron Trade in England and Wales in ibid.*, IX (1928-29), p. 12.

³ MS. Addl. 11052: references are to folios in this volume.

⁴ A quick inspection disclosed no certain traces of the forge at the present day. Incidentally, the picturesque inn at Carey now appears as the Mynors Arms, which is nothing but a recent "improvement" on its old name, the Miners' Arms, correctly recorded by the Historical Monuments Commission.

⁵ Rev. John Webb: *Memorials of the Civil War*, II, p. 395.

⁶ Mynors Estate Act, 1696 (House of Lords MS. 1083) citing a deed of 1662.

⁷ The name is given incorrectly as William Price by Mr. Alfred Watkins in *Trans. Woolhope Club*, 1921-23, p. 156. For William Rea see the paper cited in note 2.

APPENDIX I.

"The Coppice woode of the said Sir John Scudamore called Cawbrowe part yattons wood Cockshoote wood the friethes Linder Prossers part the little grove Ailstones wood Scudamores hille Gaygarway Tackfeild Trilloes Courte Combes moore Boulstons Coppies Barneheath Coppies Ramesden Coppies Playnes Ley widdowe Philipps Leasowe and Jeffery Cookes Leasowe Bowens Coppies Wellcowse Close Lisimore the wood in Jeffery Cokes and William Bolts occupacon the wood in henry Sampsons occupacon and Birchgrove."

APPENDIX II.

fol 65—The charge of a Tonn of Iron as itt now stands us in the makinge

	£	s.	d.
Wood: 9 cords att 4 ^s	1	16	0
Cuttinge of 9 cords at 12 ^d	0	9	
Cordinge at 4 ^s p share (?)	0	1	9
Colinge the same at 2 ^s 6 ^d p load	0	7	6
Cariage at 4 ^s p load	0	12	
Wages to Clarke Colekepers & Carpenters			
40 ^l p ann	0	4	
Reparacon (repair) & Implem ^{ts} of all sorts	0	2	
Reparacon of wear & other day labourers hire	0	1	6
Raw Iron 26 ^e to a ton at 6 ^l p ton	7	16	0
Makeing ton of Iron	0	18	
Standing wages to Iron men and allowance of firewood to them	0	2	
Carriage of a ton to Bristol	0	12	
Cockett money pd to the Kinge the earle of Worster & cyty of Monmouth	0	1	
	13	2	9

We sell aboute 26^{ton} of Iron p ann by retayle out of w^{ch} we gett about 20^s p ton w^{ch} comes to in 200^{ton}: w^{ch} I suppose we shall make aboute this some of 2^s 9^d p ton: for I compute by this that Iron stands us in neer abouts 13^l p ton.

NOTE—

They made about £1 a ton on 26 tons sold by retail: presumably local sales, which if they did not have to stand the cost of carriage to Bristol might have been, therefore, at £13 10s. a ton. This £26 spread over an estimated annual output of 200 tons represents a little over 2s. 7d. a ton, reducing the cost of that 200 tons practically to £13 a ton. "Cockett money" represents tolls paid en route to Bristol.

For other references to ironworks in Herefordshire see Woolhope Club *Transactions* for the following years.

1937, pp. 70-73. Industries of Herefordshire in bygone times. By Rhys Jenkins.

This was read at a meeting of the Newcomen Society in Hereford, and was reprinted in the Club's *Transactions* by permission of the author.

1943, pp. 103-118. Early Iron Manufacture and an Inventory of Whitchurch Forge, Herefordshire, in 1633. By H. G. Baker. *illus.*

1946, pp. 57-8. Ironworks at Bringwood.
An account of an agreement of 30th December, 1637, between Sampson Eure and Francis Walker for the supply of wood for charcoal.

1946, pp. 237-8. Letter from Richard, lord Eure, to Edward Phillips concerning the supply of wood to the ironworks at Bringwood. There is 'a general murmur among the people'.

1950, pp. 208-9. Extracts from notebooks belonging to Sir H. W. A. Ripley, Bart.
Records sale of wood from Hopton Park for the ironworks at Downton to Mr. Knight in 1756.

THE CANON WHO RHYMED

By PREBENDARY S. H. MARTIN, M.A.

Read 25th November, 1952

There was once a canon of Hereford, Simon de Freine by name, who won fame as a poet towards the end of the twelfth century. Two of his works are in Norman French, in lines of seven syllables written in rhyme, in the metre which has come down to us in the well-known hymns, *Hark the herald angels sing*, and *Christ the Lord is risen today*. The first poem is *Le Roman de Philosophie*, a poetic version of the *De Consolatione Philosophiae* written c. 523 A.D. by Boethius, the minister of Theodoric, in which the uncertainty of Fortune is contrasted with the certain graces which divine Philosophy with her seven daughters (the seven Arts) can give us. This book of Boethius was very popular and was translated by King Alfred and by Chaucer.

The second poem is a life of St. George, a legend much circulated at that time by those who had returned from the Crusades. Freine says nothing at all about the dragon, but dwells on the horrible tortures which the martyr endured, and on the three deaths that he died. Twice was he miraculously restored to life, but the

last death brought him to Paradise and the life beyond the grave.

"La nus doinst le joie fine
Qui nul jour de l'an ne fine,
Joie e permeneable vie.
Amen! Amen! chescun die!"

He also wrote some Latin verses, chiefly in elegiac metre, addressed to his friend, Giraldus Cambrensis. The clergy of St. Davids had elected Giraldus to be their bishop, but the Archbishop of Canterbury appointed somebody else. The poet writes in a smooth and elegant style to console him in his disappointment and to invite him to come to Hereford. Hereford had its attractions, for the three Foliot bishops, Gilbert, Robert and Hugh, had encouraged learning, and William de Vere, who held the see in 1200, was, as Bannister says of him, 'magnificent alike in his building and in his princely hospitality'. 'Come to our city', Simon writes, 'where there are men who love learning, and take the foremost place amongst us. The city of Hereford will suit you very well, for here the trivium and the quadrivium have their proper place. It flourishes now as ever, and here especially respect for Art in its seven forms has the pre-eminence. You, who are the pride of art, are in duty bound to love this place of art, where so many arts shine. Hither then may you come; you will hold sway over the whole city. The whole city will bow the knee and be your slave. There are philosophers here; in it you only will be their glory; the people of the city also will glory in you alone. If they have not yet made you a bishop, you will find peace and rest, the opportunity to serve God and to win the glory that never fades.'

The Trivium was the three years' course for the degree of Bachelor of Arts, and the Quadrivium the four years' course for that of Master. The seven arts were: Grammar, Logic, Rhetoric, Music, Arithmetic, Geometry and Astronomy. As the old saying has it:

'Gram loquitur, Dia vera docet, Rhet verba colorat,
Mus canit, Ar numerat, Geo ponat, As colit astra.

The words 'to serve God' may refer to the prebendal stall which Giraldus had in the cathedral.

In this poem, written c. 1203, Freine speaks of his 'aged muse'. About eighteen years later he wrote some more verses in defence of Giraldus who had been slandered by David, abbot of Dore. Therefore, if he was slightly older than his friend his date would be 1146-1220. This would suit the reference to a Master Simon de Freine in St. Guthlac's Cartulary, No. 384, dated 1224-8. Bishop Hugh Foliot, in giving to one Bernard the lesser tithes of Sutton St. Nicholas, writes that 'Master Simon de Freine had had them before him'. The word 'Master' is often the title of a Canon and Walter de Freine, lord of Sutton and Moccas, may have recommended Simon to receive the emolument. So we can imagine him

serving in the church of Sutton and delivering sermons on the uncertainty of riches, or on the legend of St. George. But in what language? If in Latin or Norman French, he would not have been understood by Philip Alecuppe or Robert the Smith and other parishioners. If he spoke in English what a linguist he was! Yet that is what he must have done. The church needed Latin for study, Norman-French for the castle and the court, and English for the common folk. Like many other sermons of the time, it may have been written in Latin, but preached in English.

For authorities see J. E. Matzke, *Les Oeuvres de Simond de Freine*, and Owst, *Preaching in Medieval England*.

HEREFORD CATHEDRAL CHURCH

SOME BOSSES AND CAPITALS IN THE LADY CHAPEL, CHOIR, AND NORTH TRANSEPT

By F. C. MORGAN, M.A. (Hon. B'ham.), F.S.A., F.L.A.

In the elder days of Art,
Builders wrought with greatest care
Each minute and unseen part;
For the Gods see everywhere.

Longfellow.

"The Builders"—Stanza 5.

During the renovation of the vaultings of the Lady Chapel (1949 A.D.), the choir (1950 A.D.), and the north transept (1951 A.D.), under the direction of Professor E. W. Tristram, at the cost of the "Friends of the Cathedral", advantage was taken of the scaffolding then erected to photograph many details of the carvings from a short distance. The beauty and interest of these cannot be seen from the floor of the church. Some are remarkable.

LADY CHAPEL. In 1055 A.D. all relics in the cathedral were lost in the capture and destruction of the city of Hereford by the Welsh. The building erected by Bishop Æthelstan (bishop 1016-1056 A.D.) was burnt and the canons were slain. A later Norman stone church begun by Robert de Losinga (bishop 1079-1095 A.D.) had a large apse at the east end of the presbytery and smaller ones terminated each choir aisle. These were removed about 1190 A.D. when William de Vere (bishop 1189-1199 A.D.), a scion of a wealthy baronial family was bishop, and Giraldus Cambrensis and Walter Map, two famous men, were canons. Probably the altar in the centre apse had been dedicated to St. Ethelbert.

De Vere first built the ambulatory, a good example of the "West Country school of masons" which probably originated at Malmesbury, but he died in 1199 A.D. and the work ceased until after the Interdict (1208-12 A.D.). Apparently the plan of rebuilding was changed when the Lady chapel was begun in 1222 A.D., after a tooth of St. Ethelbert and other relics which attracted pilgrims had been given to the Chapter by Philip de Fauconberg. The late Mr. G. Marshall believed that the work began at the west end of the south wall, continued to the east, turned north and finished at the west end of the north wall, where the junction of the vestibule and chapel overlap a few inches.¹

It is possible that a new mason was engaged during the rebuilding, as the capitals of the windows on the south side are simpler than those on the north. The carvings at the east end, however, are very fine. Mr. Marshall partly based his assumption of the appointment of the second mason from the carving of two heads over the first window from the east on the north wall. One has the eyes closed, the other has them open (Pt. VI, 3).

A capital of the second window on the south in place of a volute has a man's head wearing a doctor's cap with pileus. Perhaps this represents the Master of the Fabric (Pt. IV, 1). A bearded head of a bishop forms a stop of the hood moulding between the central and adjoining window to the north in the east wall, and the head of a king is between the central window and that to the south. These may be portraits of Hugh de Mapenor (bishop 1216-1219 A.D.) (Pt. II, 1) and Henry III (Pt. II, 2), though the latter would have been a youth.

Over the fifth window from the east on the north wall is the head of a man wearing a velvet cap, possibly representing Hugh de Kilpec (Pt. VI, 7) who perhaps was a contributor to the building funds. Over the most westerly window on the same side is a bishop in the act of blessing; probably Hugh de Foliot, who would have been bishop when the Lady chapel was completed. A curious grotesque carving appears over the third window (Pt. VI, 5).

The most westerly of the four bosses is noteworthy (Pt. I, 7, 8). It has the head of a man in the centre, possibly representing the master mason, between three animals. The body of one of these is carved on the east side of the boss, its head only being visible from the floor.

CHOIR. In 1234 A.D. Ralph de Maidstone was enthroned as bishop; he had been dean, and was a great benefactor to the church. He seems to have appointed a new mason, for the carvings in the choir are more naturalistic than those in the Lady chapel. This is evident in the first and third bosses from the east, the latter being undercut no less than 13½ inches (Pt. VIII, 1 & 3). Large

¹ *Hereford cathedral; its evolution and growth.* 1951.

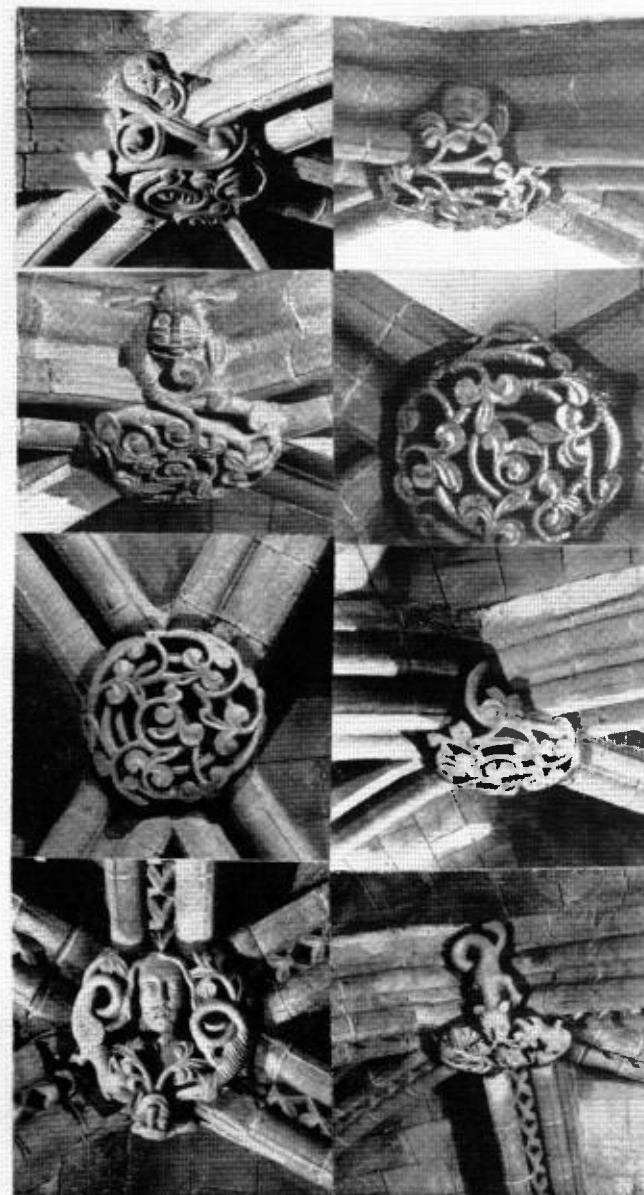
N.B.—The writer of these notes is much indebted to Mr. Marshall for the suggestions contained in this book.

and small bosses alternate, the former measuring $37\frac{1}{2}$ inches across. Dog tooth ornament on the capitals on the north and south walls is exceptionally good (Pt. X, 3, 4), and the representations of human heads are few. A small head, invisible from the floor, is a stop in the hood moulding of a window on the north side (Pt. IX, 5), and a larger, crudely designed half figure is on a capital at the south-east corner. Another is in the centre of the south wall (Pt. X, 1 & 2). These may have been altered during the 'restoration' in the 19th century; no other reason for their poor quality is apparent. On a capital on the north wall there are seven heads and parts of human figures (Pt. X, 5 & 6). These are remarkably good and with glasses can be seen easily from the floor. The centre and most prominent half-figure in it has his arms outstretched and his left hand pressed against the mouth of a head wearing a fool's cap and having an agonized expression.

NORTH TRANSEPT (1245-1268). Ralph de Maidstone resigned in 1239 A.D. and a wealthy Savoyard, Peter de Aquablanca, was appointed to the see. He had come to England in the train of Eleanor of Provence, and was familiar with the work that Henry III was planning at Westminster abbey. Probably the Bishop obtained drawings from the architect engaged there, and began to build the beautiful north transept at Hereford—the second of the only two examples of the French style of architecture in England, except for minor details in St. Peter's church, Hereford, and at Boxgrove priory, in Sussex. The fenestration of the transept is remarkable. The triangular clerestory windows are similar to the triforium windows in the north transept of Westminster; and the triforium chamber (now the chained library) has windows, round-headed with small columns at the sides, as in Westminster clerestory. The two types are therefore reversed in the two places.

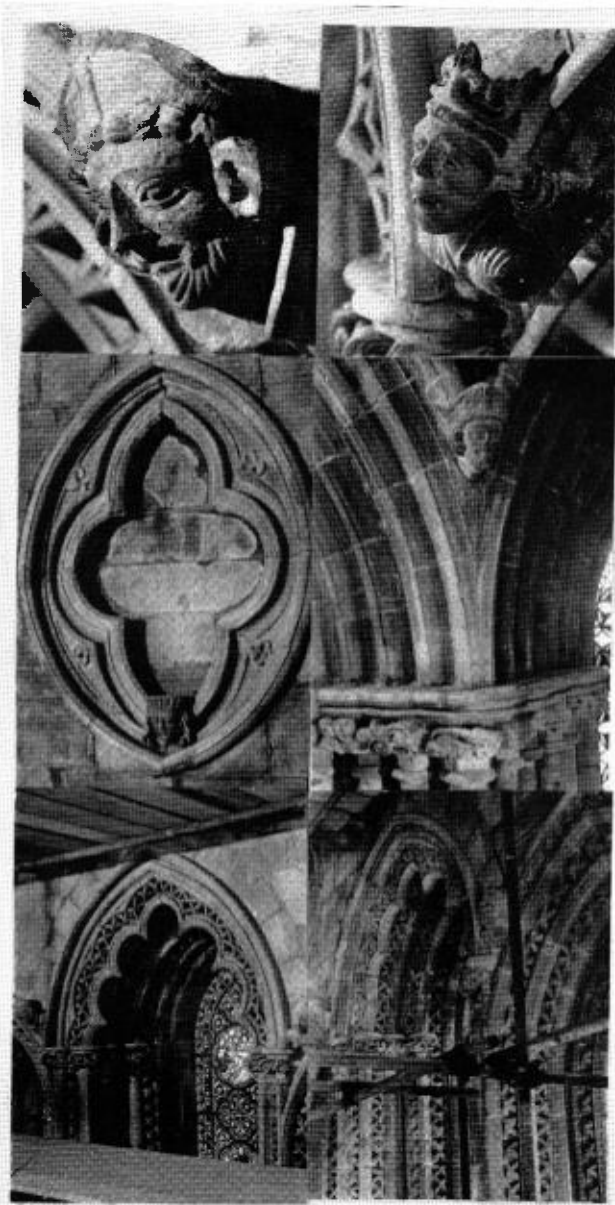
There were various interruptions in the work at Hereford owing to disputes of the Bishop with the Dean and Chapter and also owing to the occasional absences abroad of the former. In 1261 he was in Hereford, and probably had his tomb built. Shortly afterwards the vault of the transept was erected and the work completed.

The bosses show a distinct change in style. Those in the transept are designed with broader and more flowing foliage than in the Lady chapel or choir. Those in the transept aisle, being lower and more easily visible from the floor, have narrower leaves and two have designs including animals. Especially noteworthy in the aisle are the south boss with a delightful wyvern (a dragon with wings and one pair of legs) on the lower surface (Pt. IV, 4), and the north and south sides of the central boss. The former depicts a pelican in her piety and the latter shows swine feeding upon acorns below an oak tree, symbolised by oak leaves (Pt. IV, 6, 7). Pannage, the right to send their swine into the forests to feed on acorns before being killed for winter consumption, was claimed by tenants of manors in mediæval times.



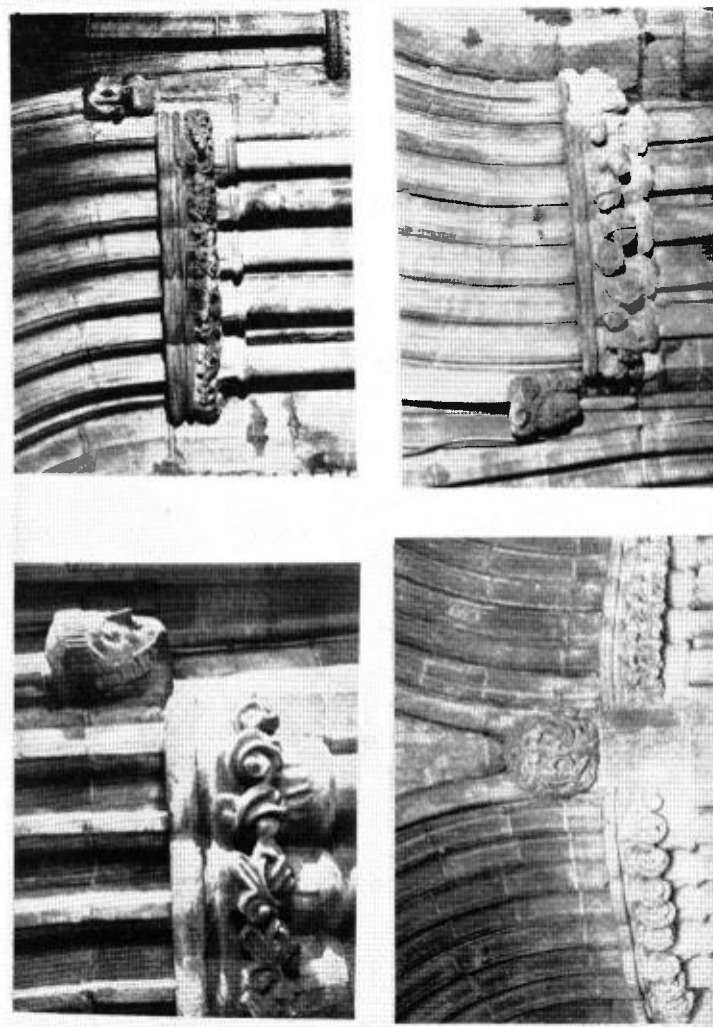
LADY CHAPEL

- | | |
|----------------------------|--|
| 1. East boss, west side. | 2. Second boss, west side. |
| 3. Second boss, east side. | 4. Third boss, west side. |
| 5. Third boss. | 6. Third boss, east side. |
| 7. West boss. | 8. West boss, east side. The head of the animal is shown at the bottom of No. 7. |



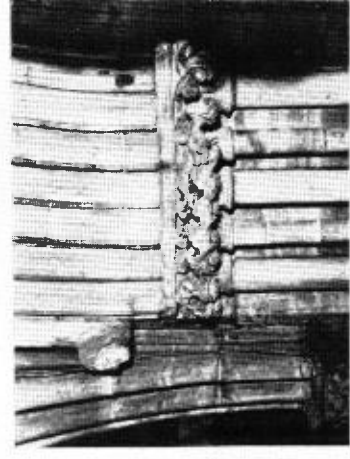
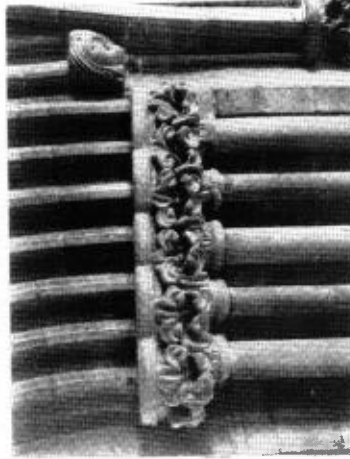
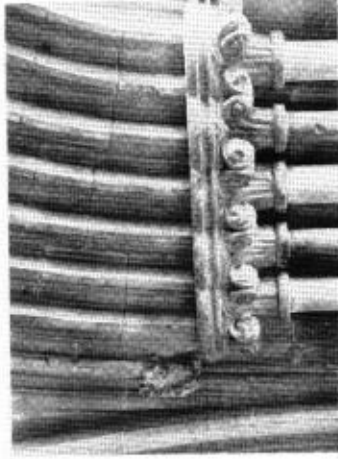
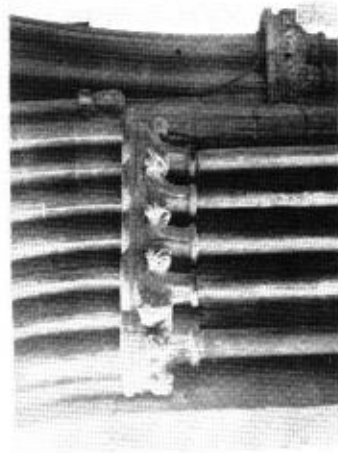
LADY CHAPEL, east end and a north window stop.

1. Bishop's head between centre window and next to the north.
2. King's head between centre window and next to the south.
3. Vesica over centre window. Probably the head was repaired by Scott.
4. Stop between 1st and 2nd window on north wall.
5. Detail of centre window.
6. Detail of centre window.



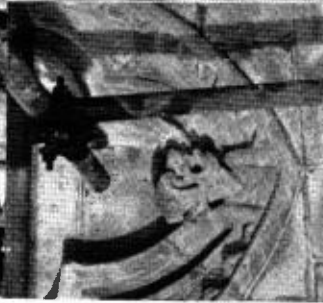
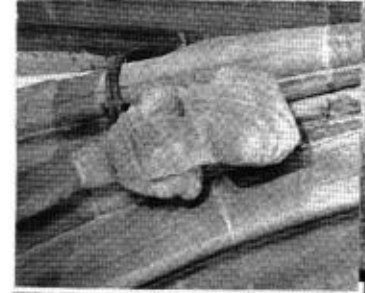
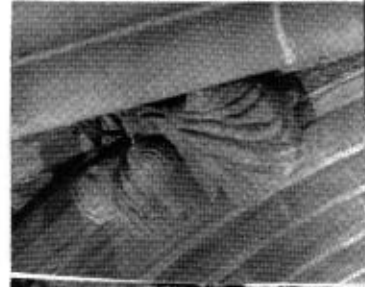
LADY CHAPEL

- North side, the windows are numbered from east to west.
1. East capital of third window.
 2. Capital and stop north-east corner.
 3. Capitals and stop between 3rd and 4th windows.
 4. West capital of 2nd window.



LADY CHAPEL

1. Capital of 2nd window from east on south side.
2. East capital of 3rd window on south side.
3. East capital of 5th window on the north side.
4. West capital of 4th window on north side.



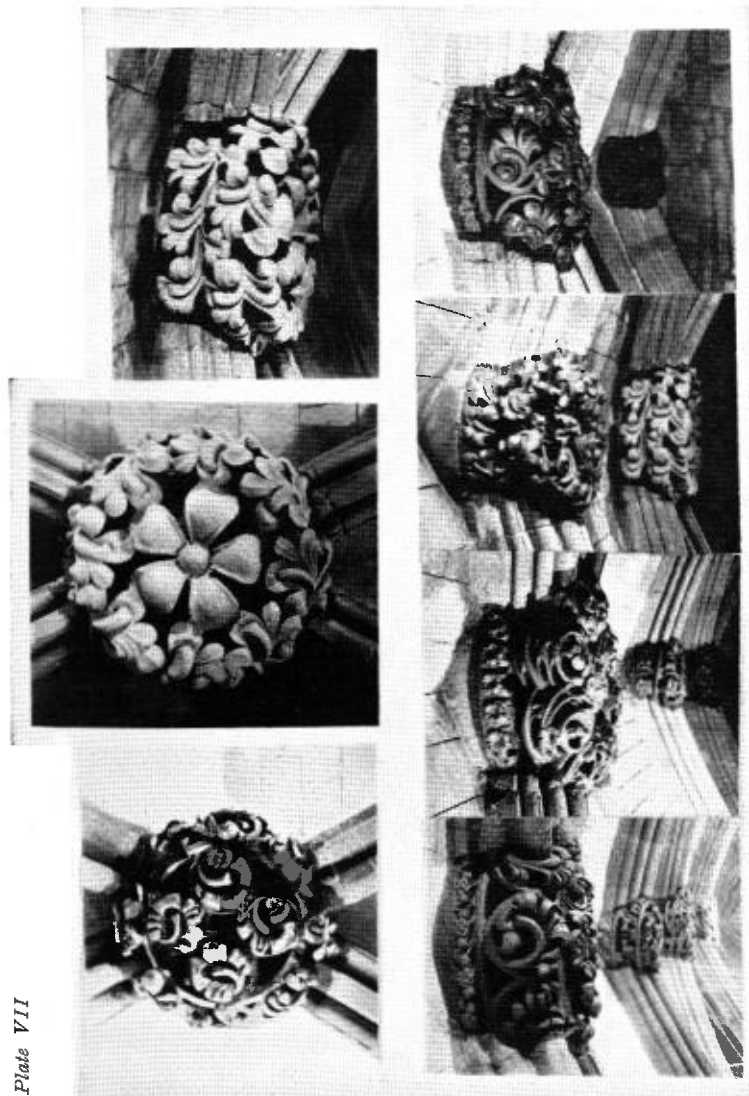
LADY CHAPEL

1. Stop between two windows at east end.
2. West side of 4th window on south side.
3. West side of 4th window on south side.
4. Stop between 3rd and 4th window on south side.
5. Base of north vesica at east end.
6. Base of south vesica at east end.
7. Over 4th window on south side.
8. Stop between 5th and 6th window on north side.



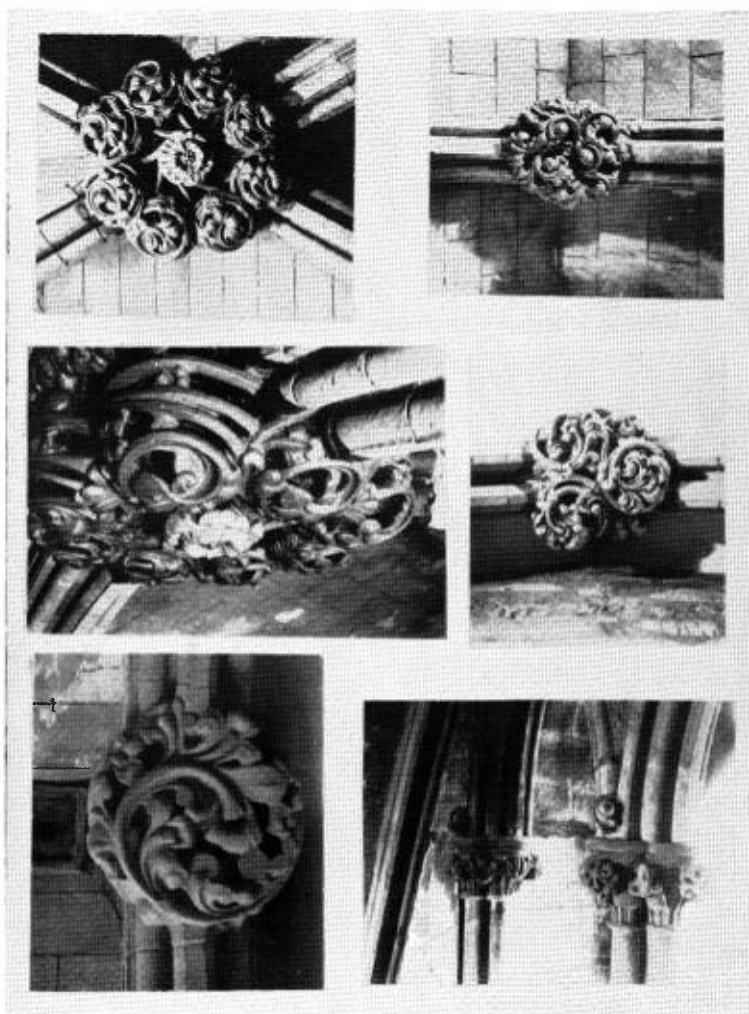
LADY CHAPEL

1. Over 1st window on south side.
2. Over 3rd window on south side.
3. Over 1st window on north side.
4. Over 2nd window on north side.
5. Over 3rd window on north side.
6. Over 6th window on north side.
7. Over 5th window on north side.
8. Over 4th window on north side.



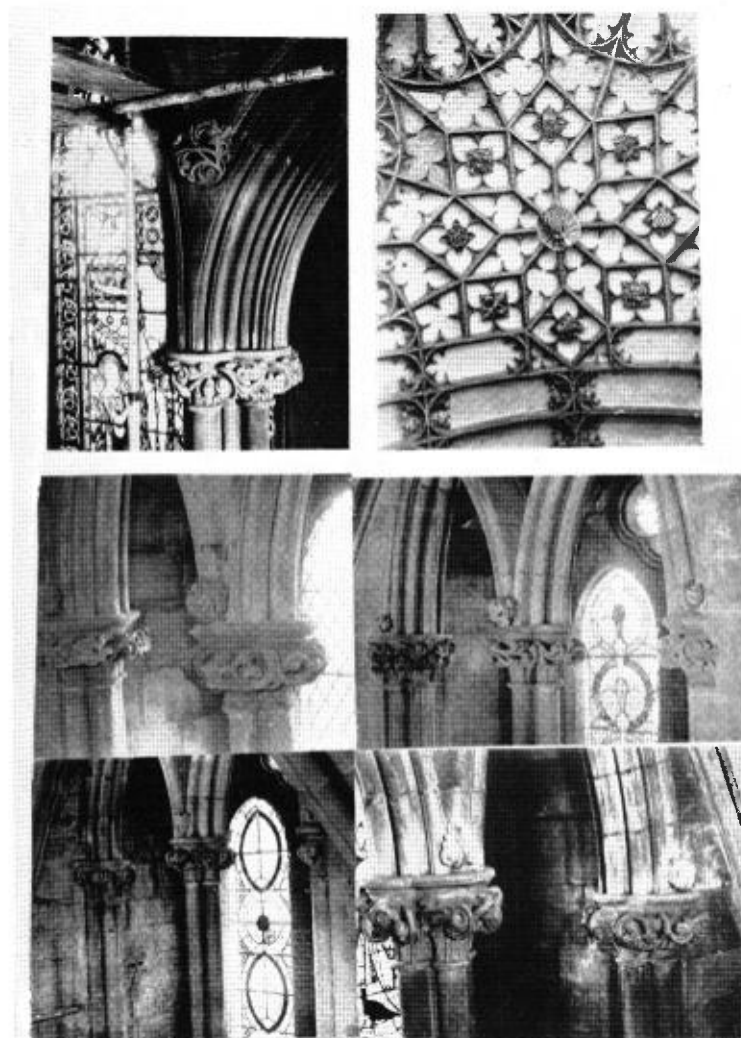
CHOIR

1. Fifth boss.
2. East boss.
3. East boss, west side.
4. Bosses looking east.
5. Bosses looking west.
6. Bosses looking east.
7. Bosses looking west.
8. Bosses looking east.



CHOIR

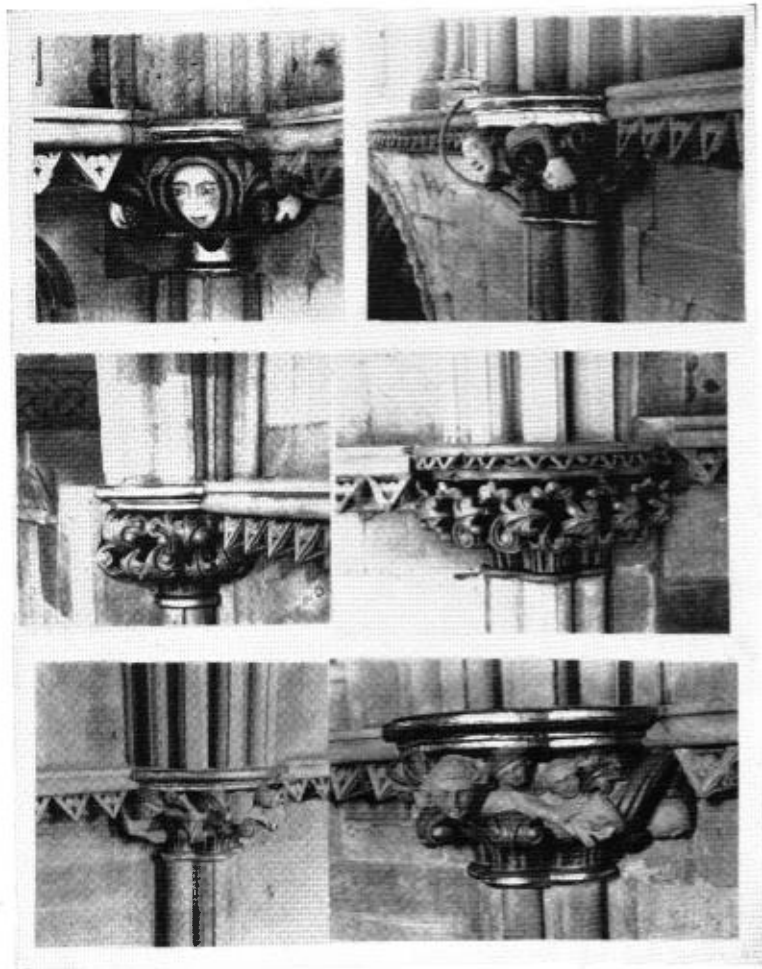
1. Third boss.
2. Second boss.
3. Third boss showing $13\frac{1}{2}$ in. undercutting.
4. West boss.
5. Fourth boss.
6. Capitals of middle window on north side.



CHOIR AND AUDLEY CHAPEL

1. Capital at east end.
2. Vaulting of Audley Chapel.
3. Capital of east window on south side.
4. Central window, north side.
5. Capitals of west window, on north side.
6. Capitals of east window, on north side.

Plate X



CHOIR

- | | |
|--|---|
| 1. South-east corner. | 2. Second capital on south side. |
| 3. North-west capital. (For corresponding capital at south-west see Plate XII, 2.) | 4. Third capital on south side. |
| 5. Third capital on north side. | 6. Third capital on north side. There are seven heads in this fine capital. |

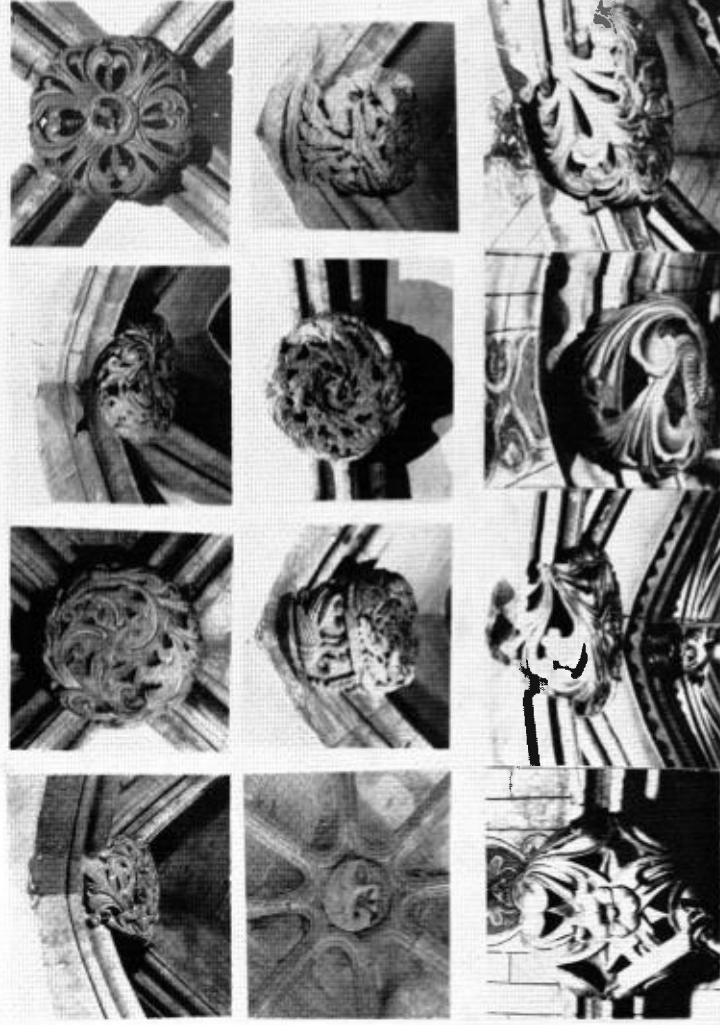
Plate XI



NORTH TRANSEPT

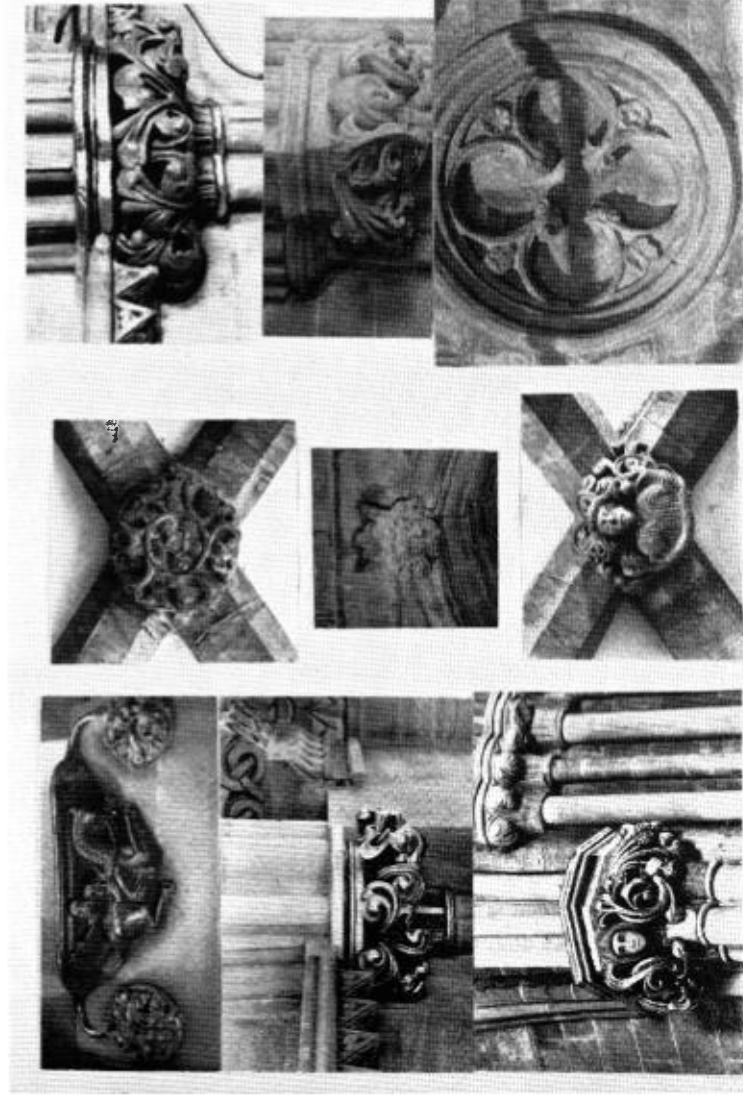
Bosses numbered from north to south.

- | | |
|----------------|-----------------------------|
| 1. North boss. | 2. Second boss. |
| 3. Third boss. | 4. Fourth boss, north side. |
| 5. Fifth boss. | 6. Fifth boss, north side. |

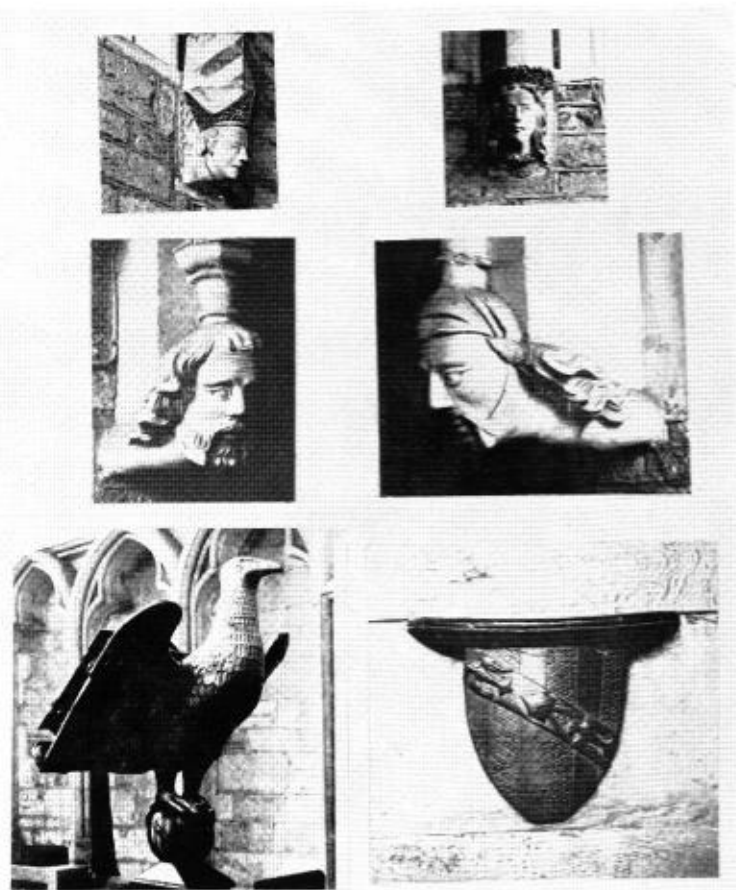


1. First aisle boss, south side.
2. First aisle boss.
3. Third aisle boss, north side.
4. Third aisle boss. (Wyvern.)
5. Pelican in her piety. (Boss in cloister, for comparison with No. 6.)
6. Centre aisle boss. (Pelican.)
7. Centre aisle boss.
8. Centre aisle boss, south side. Pigs eating acorns.
9. Fourth boss in transept.
10. Third boss in transept, north side.
11. Second boss in transept, south side.
12. Third boss in transept, north side.

NORTH TRANSEPT AND TRANSEPT AISLE
Numbered from north to south.



1. Misericord. Medieval form of punishment.
2. Third boss from west in crypt.
3. Third capital from west in choir, on north side.
4. South-west capital in choir.
5. Over second window on south side of Lady Chapel.
6. Capital at junction of Lady Chapel and vestibule. A small sickle is held in the left hand of figure. See also No. 7.
7. Capital at junction of Lady Chapel and Vestibule. See also No. 6.
8. West boss in crypt.
9. Roundel on north wall of Lady Chapel.



Photographs by F. C. Morgan.

OTTERY-ST. MARY LADY CHAPEL

1. Bishop John Grandisson.
2. Countess of Salisbury, the Bishop's sister.
3. The Earl of Salisbury, who married the Bishop's sister.
4. Sir Otho de Grandisson, the Bishop's uncle.
5. Lectern given by the Bishop.
6. Misericord, arms of the Bishop.

The scene is frequently shown in misericords and drawings of the period. It appears on misericords at Malvern and Ripple churches where the swineherds are shown knocking the acorns off the trees also. One at the latter place depicts butchers killing pigs after they had been fattened.

The measurements of the transept bosses are : Large bosses (3) width 26 inches, depth 18 inches. Small bosses (2) width 18 inches, depth 16 inches. The north boss is undercut $3\frac{1}{2}$ inches, the centre boss is undercut 9 inches. In the transept aisle the north and south bosses are 18 inches wide and 18 inches and 17 inches deep, with undercutting of 2 inches and $3\frac{1}{2}$ inches. The centre boss is 16 inches wide by 21 inches deep with 2 inches undercutting.

JOHN DE GRANDISSON AND OTTERY ST. MARY

A short account of John de Grandisson, Bishop of Exeter (b. 1292, d. 1369), appeared in the *Transactions* for 1941, pp. 161-3. During a visit to Ottery St. Mary in August last the opportunity was taken to photograph some of the interesting features of the church built by the Bishop.¹ A boss in the measured centre of the church and a corbel in the Lady Chapel, are believed to be portraits of Grandisson, who bought the manor and advowson of Ottery St. Mary soon after his enthronement at Exeter in 1329. He first released all tenants from servile duties and soon afterwards began to rebuild the church, which he remodelled on the plan of Exeter cathedral. It has two towers, whose lower stories form transepts.

Craftsmen from Hereford undoubtedly undertook the work of the carvings in the church, as the fabric rolls of Exeter cathedral for 1299 show that the wardens for the work there were ' Dominus Robertus de Ashperton et Magister Rogerus cementarius ', and an important workman was ' Willelmus de Hereford '. They may have taught local masons, or the bishop may have imported more craftsmen from Hereford. There was a school of carvers in this city whose headquarters, according to the late Canon Capes, were in Bewell street.

The corbel of the Bishop has a jewelled mitre. Mrs. Rose Troup² suggests that it may represent one he bought from the executors of Bishop Stapledon for 200 marks and had repaired in Paris at the cost of 120 marks.

Two corbels represent Katherine, Countess of Salisbury, sister of John de Grandisson, and her husband William de Montacute (or Montague). In 1341, with her brother-in-law Sir Edward Montacute, the former defended Wark Castle, Northumberland,

¹ See illustrations opposite.

² *Bishop Grandisson, student and art lover*, by Frances Rose Troup, 1929.

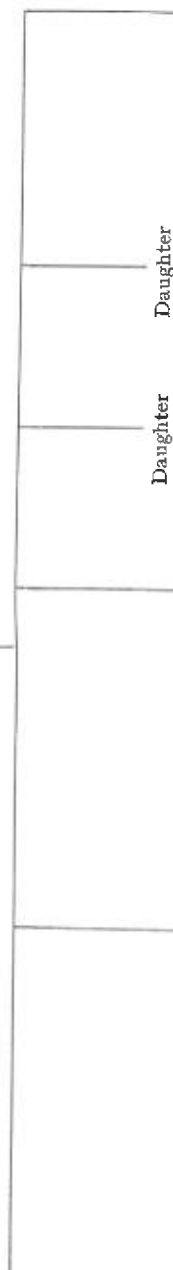
PEDIGREE OF JOHN DE GRANDISSON

OTES

SIR WILLIAM DE GRANDISSON OF ASHPERTON. On 3rd May, 1292, had license to strengthen his house at Ashperton with a stone wall and to crenellate it. Buried at Abbey Dore, 1335.

SIBYL, Harold.

younger daughter of Sir John Tregoz of Ewyas



SIR PIERS (PETER) DE GRANDISSON, Bishop of Exeter. B. 1292, d. 1368. Buried in the Lady Chapel, Hereford Cathedral church.

JOHN DE GRANDISSON, Bishop of Exeter. B. 1292, d. 1368. Buried at west end of Exeter Cathedral church.

SIR OTES (OTHO DE GRANDISSON), married Beatrice, daughter of Sir Nicholas Malemayns. Buried at Ottery St. Mary.

Daughter

Daughter

KATHERINE, youngest daughter. Married William de Montacute (Lord Montacute) who was created Earl of Salisbury, 16th March, 1336-7. He died 30th January, 1343-4. She died 1349, having taken a vow of chastity after her husband's death.

SIR THOMAS DE GRANDISSON

against the Scots. The siege was raised by Edward III, who is said to have fallen in love with her. A share in the origin of the Order of the Garter is inaccurately ascribed to her.

Another corbel shows Sir Otes, or Otho, de Grandisson the Bishop's uncle, and an effigy of interest in the nave commemorates Sir Otes, or Otho, de Grandisson, the Bishop's brother. He is lying beneath an elaborate canopy, now between pillars in the nave, but probably not in its original position, and has his sword in an unusual position, point upwards, over his left wrist and under his left shoulder. There are many other carvings of interest in the church, which is well worth a visit.

F. C. M.

THE DESCENT OF GATLEY PARK

The following particulars of the manors of Croft and Leintall Starkes, Gatley Park, etc., are printed by permission from documents in the possession of Captain Dunne. They add to the information given in C. J. Robinson's *Mansions and Manors of Herefordshire*, and also give the values of some farm stock, etc.

(1) Sir James Crofte knight grandfather to Sir Herbert Croft was estated in the mannor of Croft the mannor of lentall starkes the Parke of gatley the manners of Foord warton and newton and one bullary or salt fate in wytch all in fee tayle gen(er)all

Hee was also estated in the mannor of Luston for tearme of his Owne liefie the Remainder in Edward Croft esq sonne and heire app(ar)ant of the said Sir James and father to Sir Herbert Croft and to the heires males of the body of the said Edward in fee farm payinge the yearlie Rent of 198^{li}

The said Sir James Conveyed to Sir Wm. Herbert kt and Thomas Wigmore esq and to the heires of Tho Wigmore for Certen Consideracons the mannors of Croft, lentall starkes, the mannors of Foord Warton, and newton and the bullary or salte fate in Wytch

Alsoe hee conveyed the Parke of gateley to Hugh hare esq

After Sir James dyeth and leaveth all the lands aforesaid estated as aforesaid Sir William herbert beinge first deceased

Soe the estate of gatley Parke in the foresaid hugh hare and the rest all in Tho Wigmore and his heires

But in the liefie tyme of the said Sir James Croft and before any of these Conveyances made, the said Sir James was indebted to the late Queene Elizabeth in div(e)rse greatesomes for wch all the foresaid lands the mannors of luston onely excepted were extended and seized into the queenes hands and valued at a Certen yearely rente

36 Eliz Whereuppon Sir Herbert Croft obtained a lease of those lands soe 1594 extended at a yearely rate quam diu

37 Eliz The Park of gately afterwards Conveyed from the aforementioned

1595 Hygh Hare to Sir Herbert Croft in Consideration of money paid by the said Sir Herbert to the said hugh hare

38 Eliz And all the lands before menco(n)ed to be Conveyed to Sir William 1596 Herbert and Thomas Wigmore weare Conveyed by the said Thomas

(Sir William Herbert beinge deade longe before) to the said herbert Croft

Sir Herbert did purchase the mannor of lentall Erles of Sir h lindley The lordship of luston disceded to Edward Croft esq father to Sir herbert and after his decease to Sir Herbert

All the lands that weare Conveyed from Wigmore and from Mr Hugh Hare weare settled in Sir Herbert for tearme of liefc onely and the Remynder such as are expressed in the Conveyances with power of alteracon *p(ro) ut &c* Sir Herbert Croft married Mary one of the daughters & heires of Anthonie Bowrne esq by whome hee had the inheritance of the mannor of Garsden in the Countie of oxford

Afterwards Sir Herbert Croft procured his wief to sell the said mannor of Garsden

And further did drawe her to Joyne in a fyne with him for the sale of the mannors of foord warton and newton to Morgan Awbrey

1607 In Consideration of these twoe sales and to ennoble himself to make 5 Jacobi sufficient Conveyances Sir Herbert did make a deede of revocacon of the estate of all the lands conveyed to him from Mr. Wigmore and Mr. Hare 27 Maij And by an other deede did make a graunte of the twoe mannors 1607 5 Jac of lentall Starkes and lentall Erles for Certen yeares to some men in trust for the Answearing of the extent Rent and for such other uses as are in that deed expressed

28 Maij Then by another deede Sir Herbert did estate Certen frinds in 1608 5 Jac the mannor of Croft and the Parke of gatley to the use of himself and of his wiefe and the Remynder *p(ro) ut &c*. and of the twoe mannors of lentall starkes and lentall Earles to the use of himself for the tearme of liefc the Remainder *p(ro) ut &c*

Sir Herbert haveinge alsoe a lease from queene Eliz of the mannor of Brinfield for almost 20 yeares then unexpired did assigne over the same to some frinds in trust to the use of his wiefe

11 Junij Afterwards Sir Herbert for the Considerations of what was 1612 mentioned in the former Conveyances as done by his wiefe for him as alsoe in Consideration that the assign^{mt} of the lease of Brimfield before menconed should be Cancelled and that Sir Herbert might sell the said lease did make a Conveyance whereby hee doth assure unto Certen frinds to the use of his wiefe this present estate of all the demesne lands of Croft and luston and the parke of gatley (except &c) and doeth give all his plate and howshould stufte and the use of all his stock of sheepe and Cattell without any accompt to be made.

Gatley Park was purchased by Sir Sampson Eure, Attorney-General in Wales for Charles I, and Speaker of the House of Commons at Oxford in 1644. He died in 1673, and Gatley later was purchased by Philip Dunne who died in 1699. It still belongs to the Dunne family.

(2) An Estimate of ye Value of Gatley Parke by ye *p(ro)fits* therof made in one yeare, as by sufficient Testimony will be made to appeare.

	£	s.	d.
500 Sheepe, most of them Cotswold, wintered and Somered there, w ^{ch} at xl ^s <i>p(er)</i> score amounteth unto	500	00	00
12 Oxen Somered at xx ^s an Ox	12	00	00
14 Cowes Somered at xx ^s <i>p(er)</i> Cowe	14	00	00
24 yong beasts, yearlings, 2 yeare olds, and 3 year olds, att ye usuall tack rate	12	00	00
24 Horses of all sorts double ye rate of beastes	24	00	00
20 Days math of hay mowed ye same yeare for ye wintering of ye said Cattle & horses at vij ^s viij ^d a days Math amounting unto	06	13	04
60 Acres in tillage ye same yeare at iij ^s <i>p(er)</i> acre	09	00	00
20 Acres in Hopground then at v ^s <i>p(er)</i> acre	05	00	00

60 Acres at least, wood measure, of Coppics wood w^{ch} at twenty yeares growth will affoord 3 acres yearly to be felled for ever at v^l *p(er)* acre 150 0 000

This Acc^t we have recd from divers of ye Inhants of Lenthall Earles who are ready (yf required) to make good this theyr Testimony upon oath.

Wee have alsoe recd Informacon from ye same hands Concerning the quantity of Gatley Parke y^t it hath been allways reputed 900 acres w^{ch} at iij^s *p(er)* Acre amounteth unto £135 00 00

9th July

1666

Page 2 To the Honble his Maj^{ties} Comrs^s for ye Royall and Additionall ayde for ye hundred of Wigmore.

May it please y^r honours

Wee whose names are subscribed having recd power & direcco(n)s by y^r honors order of ye 19th of June last for ye surveying of Gatley parke w^{ch} ye rest of ye town^p of Leyntall Earles in order to a settlem^t of asseasm^{ts} there, have accordingly undergone the duty, we first surveyed Leyntall Earles at ye old field where we used our best skill not only by view but also by comparing tenem^{ts} of unknown value wth those we found at rack, and ballancing y^r proportions wth ye rates amongst themselves agreed upon, & by all other meanes w^{ch} we judged conducible to ye finding out ye true value Having done these & going to survey ye parke we recd fro(m) Gatley a *p(ro)hibition* For forbiddg us to com upon ye ground, but understanding yt ye Lady Eure had obtained an order for ye continuance of her asseasm^{ts} at ye rate of the three first paym^{ts} of ye Royall Aide, untill a new Survey were certified, and observing Mr Yapp & Mr Hemings surveyors chosen by ye lady to decline the service, we could not but suspect a designe, & therefore being loath y^t either party should be over-reacht we tooke ye advantage of a foote path through ye middle of ye parke fro(m) one side to ye other And also rounded a great part of ye park on ye outside of the Pale where we observ'd ye nature of ye turfe & soyle. We have also enquired into ye managm^t of ye estate by those imploy'd in ye service & we have recd a good account of ye number of acres as by ye paper annexed may appear. Upon these grounds we have *p(ro)ceeded* in o^r valua^{os} the *p(ar)ticulars* whereof will at large app(ere) in ye schedule of survey annexed where we have set forth ye yeerly values of ye sev(er)all estates in ye sd Town^p impartially & faythfully to ye best of o^r understanding & judgm^{ts} w^{ch} we humbly comend to y^r honor's approbation.

Nono July 1666.

N.B.—This apparently is a copy of the original report as there is no signature.

Page 3 A Survey of ye Townshipp of Lenthall Earles wth ye true values *p(er)* ann(um) of the severall estates there, made by us, whose names are subscribed.

The Lady Ewers	80	00	00
Thomas Oakeley	35	10	00
James Land	08	15	00
Richard Browne and his tennts	35	10	00
The old Feild	28	10	00
Mr. Robert Davis	24	10	00
Mathew Langford for Ld. Bpps Land	21	10	00
Mr Robt Tayler for ye Mynd	02	10	00
Mr. John Davis & his sonne	21	00	00
Clarks Tithes	17	10	00
Thomas Croone	14	00	00

Carried forward ... 289 05 00

Brought forward	...	289 05 00
Mary Hopkins widd		12 05 00
John Beddoes		04 05 00
Sheappards Lands		04 15 00
Edward Edwards		02 10 00
John Elliotts		01 15 00
Mr Whittle for ye Tithes		05 05 00

To^u 320 00 00
9th July
1666

DEALINGS IN LEATHER IN HEREFORD IN 1596 A.D.

The following is taken from one of the archives in the Town Hall, Hereford, by permission of the Town Clerk, Mr. T. B. Feltham. It shows what a large trade there was in leather in the 16th century. There were tanneries in the city as late as the early 20th century.

EXTRACTS FROM "A TRU REGESTER FOR THE YEARE THAT Mr. JHON CARWARDINE WAS MAIRE AS FOWETH", 1596.

Date	Vendor	Purchaser	Amount	Price
8 Oct	Edwarde tempell	Roger baker	1 deker	2 13 0
19 "	Robrte James	howe Skedmore	1 "	5 10
24 "	Willyam Smyth	James hille	1 "	5 6 8
		Roger Wolfe	1 "	5 6 8
26 "	Richard Eysam	Robarte Morgan	1 "	2 10
27 "	Willyam Smyth	Willyam Grine	12 hides	6 10
29 "	Richarde gittos	Jhon phelpotes	4 "	1 6
3 Nov.	Jhon perkin	Richarde gravell	1 deker	5
6 "	Edwarde Tempell	Jhon phelypes	1 "	6 13 4
12 "	Richarde Spenser	Willyam Treherne	3 "	16
11 "	Roberte James	Jhon Sirrell	1 "	5
12 "	Richarde Eysam	Roberte morgan & Thomas lovell	1 "	5
15 "	Willyam Smyth	Roger Wolfe	1 "	5 10
20 "	Watter morris	hary Davis	1 "	4 13 4
24 "	Willyam Smyth	willyam grine	1 "	6
29 "	Richarde Eysam	Robarte morgan	1 "	4 13 4
9 Dec.	watter morris	howe Skedmore	1 "	4 13 4
10 "	mrs Simones	Jhon Baddam	3 "	13 13 4
14 "	Roger grobe	Thomas watteres	14 hides	4 12
	Richarde Speser	willyam treherne	1 deker	5 10
15 "	Thomas tusy	Richarde a pricharde	1 "	4 13
20 "	Edwarde tempell	Jhon hill	1 "	5 6 8
		James Yenarde	1 "	2 10
8 Jan.	Edwarde tempell	Roger baker	1 "	8
10 "	Richarde Eysam	Willyam Grine	1 "	5 10
15 "	James Jenkines	howe Skedmore	1 "	4 16 8
20 "	Roberte James	Willyam keymore	12 hides	6
22 "	Edwarde tempell	willyam treherne	2 deker	11 13 4
26 "	mrs Simondes	willyam halorde	2 "	10
5 Feb.	Jhon Badnege	Thomas watteres	1 "	2 19
12 "	willyam Smyth	hary herin	1 "	2 10
13 "	willyam Smyth	Roger wolfe	1 "	5 6 8
Carried forward			...	184 6 4

Date	Vendor	Purchaser	Amount	Price
		Brought forward	...	184 6 4
19 Feb.	Richarde Spencer	willyam treherne	6 hides	2 16
	Edwarde tempell	Roger baker	13 "	6 15
24 "	mrs Simones	Jhon Serrell	1 deker	5
	Edwarde tempell	Richarde gravell	1 "	5
26 "	watter morris	willyam treherne	5 kipes	1 6 8
27 "	willyam Smyth	James hill	1 deker	5 6 8
6 Mar.		hary herin	1 "	5 6 8
7 "	Richarde Spenser	willyam treherne	1 "	5
8 "	willyam Smyth	James hill	1 "	5 6 8
12 "	Thomas perrin	willyam grine	1 " of kipes	2 5
	Edmond wopper	Jhon phelipes	1 deker	2 13
14 "	Roberte James	willyam kymore	12 hides	6 10
16 "	Richard Eysam	willyam grine	1 deker	5 6 8
	Jhon Badnedge	Thomas watteres	1 "	7 9
18 "	Jhon perkin	Jhon baddam	1 "	1 15
		hary powell	1 "	2
21 "	Jhon perkin	James Yenarde	1 "	2 13
2 Apl.	Edwarde tempell	willyam treherne	1 deker	5 13 4
	Edmunde hupper	willyam treherne	6 hides	2 13 4
*	Richarde weler	Thomas watteres	1 deker	2 5
6 "	Edwarde tempell	Roger baker	1 "	5 13 4
		Richarde gravell	1 "	5 13 4
7 "	Willyam Smyth	James hill	1 deker	5 5 0
		hary herin	1 "	2 11 8
9 "	Edwarde tempell	Jhon hill	1 "	5 13 4
11 "	Thomas tusy	Richarde Aprichard	1 "	5 6 8
	watter willyames	Jhon phelypes, of kipes	1 "	1 16 8
13 "	James Jenkines	howe Skedmore	1 "	5
	Roberte James	griffite Apowell	12 hides	6
20 "	watter morris	willyam treherne	1 deker	4 10
23 "	hary Spenser		7 hides	4 10
	Richarde Wheler	Thomas Watteres	1 deker	2 15
25 "	Jhon perkin	willyam grine	1 "	5
30 "	Edmonde whooper	Jhon phelypes	1 "	2 5
4 May	Watter Knigh	hary herin	4 hides	1 8
6 "	Edwarde tempell	Roger baker	1 deker	5 13 4
20 "	Edwarde maddocke	Jhon phelypes	2 "	11
23 "	Willyam Smyth	James hill	1 "	5 6 8
		hary herin	1 "	2 13
		Roger wolfe	1 "	2 13 2
28 "	Roger grobe	Thomas watteres	6 hides	3
28 "	Richard weler	willyam grine	1 deker	4
6 Jun.	laranse Simones	Thomas watteres	14 hides	4 13 4
	Richarde Hergaste	willyam heymore	1 deker	3 6
11 "	Roger hergaste	Thomas watteres, of kipes	1 "	2 12
15 "	Roberte James	Griffite apowell	12 hides	6
16 "	Edwarde Maddokes	Roberte morgan	11 "	5 10
		Richarde hergaste	1 deker	6
20 "	willyam Smyth	willyam grine	1 "	5 6 8
		hary herin	1 "	5 6 8
21 "		Roger wolfe	1 "	5 6 8
25 "	Richarde Eysam	Thomas gravell	1 "	5
30 "	Thomas badnege	Jhon phelypes	6 hides	3 6 8
Carried forward			...	417 19 6

* 2d March in register : probably an error.

Date	Vendor	Purchaser	Amount	Price
		Brought forward ...		417 19 6
1 Jul.	Roger hergest	Willyam Keymore	14 kipes	3 10
2 "	hary Spenser	willyam treherne	12 hides	6
6 "	Richarde wheler	Thomas lovell	1 deker	5 3 4
8 "	Roberte James	howe Skedamore	12 hides	6
12 "	Richarde hergaste	willyam keymore	1 deker	1 12
"	"	Jhon phelpotes	1 "	3 13
15 "	[Blank]	Willyam grine	1 "	3 13 4
16 "	watter morris	Jhon phelypes	1 "	5
23 "	Edwarde teppell	Roger baker	1 "	5 6 8
27 "	Willyam Smyth	Richard pocock	1 "	2 8
"	Jhon perkinnes	Griffite apowell	1 "	4 5
28 "	mr Symondes	willyam hallorde	1 1/2	7 10
7 Aug.	Richarde hergaste	Jhon phelypes	1 "	3 13 4
"	Richard gitos	Jhon baddam	1 "	1 16 8
9 "	Willyam Smyth	hary herin	1 "	2 13 4
13 "	"	Willyam grine	1 "	5 3 4
"	Richard weler	willyam grine	1 "	6 10
15 "	Richarde Spenser	willyam treherne	1 "	4
"	willyam Smyth	James hill	1 "	5 6 8
18 "	Roberte James	Griffite Apowell	12 hides	5 16 8
"	willyam Smyth	Thomas gravell	16 "	7 12 6
20 "	James Jenkinnes	Roger baker	13 "	6
"	Richarde Spenser	willyam treherne	1 deker	6 13 4
26 "	Richard Eysam	hary apowell	1 1/2 deker	7 0 0
2 Sep.	Edwarde whoper	Jhon baddam	1 "	2 6 8
3 "	Richarde Hergaste	willyam keymore	1 "	5 6 8
10 "	Richard weler	willyam grine	1 1/2	9 10
15 "	willyam nicoles	willyam kymore	1 1/2	2 13 4
22 "	John perrin	"	1 1/2	2 13 4
"	mrs Simondes	willyam halord	1 1/2	7 10
				£564 16 8

ON COVER:—"The Regester Boke of Kenelm lewis and in the time of mr Jhon Carwardine gentellman bein then mayre."

TYPICAL ENTRIES:—

"The viijth of october Sowld by Edwarde tempell to Roger baker half a deker of lether at liij^s
 The xxvjth of october Sowld by Richard Eysam to Robarte morgan halfe a deker of lether at 1^s
 The xxiijth of october Sowld by Willyam Smyth to Willyam Grine xij hides of lether at vj^d x^s
 The xxvjth of february Sowld by watter morris to willyam treherne v kipes at xxvj^s viij^d
 The xijth of march Sowld by Thomas perrin to willyam grine on deker of kipes at xlv^s"

SUMMARY

	£	s.	d.	Average
216 Hides ...	102	19	6	9 6 1/2
87 1/2 dekers of leather	415	18	10	2 15 1 1/2
19 Kipes ...	4	16	8	5 1
2 dekers of kipes ...	4	1	8	2 0 10
£527 16 8				

NOTES—

(i) In reply to a query in "Notes and Queries", "E. W." stated that the word *deker* has no connection with *deck*. It is a variant spelling of *dicker*, the regular name in the leather trade for a bundle of ten skins. It comes from the Latin *decaria*, a set of ten, and forms of it are found in most of the European languages. Hence probably the American *dicker*, to haggle or barter, a word familiar to the early trappers and fur-traders.—"Notes and Queries", 27th July, 1946.

(ii) A kip is the hide of a young or small beast (as a calf, lamb, etc.) as used for leather. (O. E. D.)

LATE BRONZE AGE SPEARHEAD FROM THE GREAT DOWARD, SOUTH HEREFORDSHIRE

By LILY F. CHITTY, F.S.A.

In November, 1952, Colonel T. W. M. Johnson, of the Green Farm, Hallwood Green, Dymock, Gloucestershire, sent for my inspection a bronze spearhead¹ found, some years ago, in a quarry on the Great Doward Hill, near King Arthur's Cave, Whitchurch, Herefordshire. It is kept by the schoolmaster at Whitchurch, but the finder was a boy named Preece, who has left the district. By now the whole shape of the quarry has altered. (One inch O.S. Popular (1947) Sheet 142, 458/160.)

The weapon is a leaf-shaped spearhead of the Late Bronze Age, Class V of Greenwell & Parker Brewis, *Archæologia*, LXI (1909), 450 ff., Figs. 29-53. The point is missing and the socket appears to have been abbreviated, probably after fracture across the rivet-holes, of which no certain trace survives. The present length of the spearhead is 7.8 inches (198 mm.); originally it may have been as much as 11 inches. The greatest breadth of the blade is 2 inches (49 mm.); the rounded socket extends up the blade and is hollow for over 6 inches; the broken upper end is solid and a pointed oval in section; the socket ridge merges into the wings and is not sharply defined from them. The edges of the blade are somewhat worn and damaged and are indented at the widest part. The upper part of the weapon is bent, with a crack on one face, probably resulting from the blow that snapped off the tip. The weight is 7 1/2 ounces.

The surface of the spearhead is well preserved and lustrous, coppery-brown in colour, with remains of thin green incrustation; on the better-preserved face there are vestiges of green patination; thin vertical striations cover much of the blade.

The socket is now unusually short; the mouth (25 mm. x 23 mm. in diameter) is broken out and jagged on one face; the rest of the rim is thick and flattened. Although Greenwell and Parker Brewis illustrate a number of similarly proportioned spearheads

¹ Illustrated opposite p. x.

(their Figs. 32, 45, 46, all from the river Thames), these have incipient barbs at the base of the blade and small rivet-holes just below it: in the Great Doward spearhead the wings spring directly from the socket without any holes.

I am grateful to have been able to consult Mr. J. D. Cowen, F.S.A., who is making a special study of Late Bronze Age weapons; he agrees that the socket must once have been longer; then it was broken and the rough fractured edge was levelled off with a hammer and shows slight retouching with a file: the flattened metal overrides inside but the exterior has been trimmed off. On either side there are suggestions of the upper edge of a rivet-hole, implying that the break occurred at the weakest part, across the holes.

Originally, the general outline and proportions of the Great Doward spearhead were probably similar to those found in Heathery Burn Cave, near Stanhope, Co. Durham (G. & P. B., Figs. 34, 50; British Museum *Bronze Age Guide* (1920), Fig. 35), a site which was occupied before 600 B.C., according to Professor C. F. C. Hawkes' latest dating. But in the Heathery Burn specimens, the socket as it passes up the blade is strongly demarcated from the wings, whereas the Great Doward weapon is devolved and moving towards the hollow-headed type in which midrib and wings are merged (Class V B). Since types tend to arrive and to persist late in the Welsh Marches, a date about 500 B.C. or even later may perhaps be suggested for our specimen.

That there was at least a certain amount of movement up the Wye Valley in the Late Bronze Age (as well as earlier and during the Early Iron Age) is implied by the distribution of bronze implements of late types, e.g.

MONMOUTHSHIRE

Two hoards of socketed axes near Tintern; one of seven axes, including the Welsh ribbed type, found near Liveoaks Farm, St. Arvans; the other including two of Breton type, presumably imported, about a mile from Tintern Abbey, Chapel Hill. A single socketed axe of the Welsh ribbed type found near Trelleck, Mon.

Grimes, *Prehistory of Wales* (1951), No.

542, Fig. 67, 1-7

549, Pl. V, 7

476, Fig. 61, 2

HEREFORDSHIRE

A razor, tanged and notched, from Merlin's Cave, found and kept by a schoolboy.

Proc. Bristol Spel. Soc., 4, i (1931), 11, 23, Pl. IV A; *P.P.S.*, 1946, 139, No. 57, assigned to "Monmouth" in error.

Spearhead (Cl. V) from quarry on Great Doward Hill, Whitchurch	At Whitchurch School.
Spearhead (Cl. V) found in draining Coughton Marsh, Walford, near Ross.	Gloucester Museum.
Leaf-shaped sword and spatulate dagger found at Whitecross road, Fair Oaks, Hereford, c. 1888.	Hereford Museum. <i>V.C.H.</i> , I, 163,

It is to be hoped that further evidence may be forthcoming from this route.

EXTRACTS FROM THE HARLEY MANUSCRIPTS IN THE BRITISH MUSEUM, No. 1473, CONCERNING A VISIT TO HEREFORD IN THE YEAR 1574 A.D.

The name is unknown of the earliest visitor to Herefordshire who recorded impressions of his stay in the county. The diary of his journey in the Midlands and elsewhere is preserved in the British Museum and though the references to Herefordshire are short they are of interest. The local entries begin:

1574 September the first wensday at herford 9 hora morn.

Then follows a description, with rather crude drawings, of the arms in the windows of St. Peter's church and later, the statement that

Hereford Minster Church and Cloyster is a great Threasure of auncent armes, with drawings of many. The visitor then mentions various inhabitants

At Herford M Pryce Mayre used me curteously, brought to vew th old castell. had me home to his howse, shewed me his commodities thereabout. I supped with him, his wife & one of the ynnnes of the ynnnes [*sic*] of court, of the Temple called Mr. David Williams, I trow.

There one Mr. Madewell, who in the habyt of a serving man attending on Mr. Price doth practyc physik. He told me of sundry who live [?] ther, as of Mr. Threlkeld,¹ Mr. Cooper, of Herford.

Mr. Watkins of the same church used me frendly to have procured the sight of the library, which is now allmost decayed

The diary continues:

1574

Thursday the second Septemb I rid X miles fro Herford to Ledbery, by malvorn hills to Mr. E. Threlkeld, Chaunclor of Hereford, one of my old acquaintances syns K. Edward his tyme.

The writer then records a visit paid to Cumberland, but a few pages later returns to notes on Herefordshire.

Within half a myle, west of Ledbury is a great hill, called the Wall Hills. On the top of which is a square place wth mighty great trenches having but two wayes to come in, th one of which wayes is called the Kings yate. yt

¹ A volume of *De Morbo Gallico* in the cathedral library has been repaired recently. On the outside of the top cover was found written in ink "To his fatherlawe Mr. Doctor Threlkeld of Heref or Ledburie give this wth speed."

standeth uppon th side of the little River of Ledon which hath that name from his spring (being above Evesbach) untill his meting wth the Severn at Gloucester.

On Malvern hills are two places entrenched, very great: the one therof is called the old Castell, the other [blank] and they are within a myle one of the other. the Old Castell is one part, in Ledbury parish, the other in Collwall parish, the other is in Estnor.

Mr. Threlkelds armes out of an old chayr which was his grandfathers the back wherof I saw.

Here follow drawings of the arms of Mr. Threlkeld of his wife Margery Leyghton, and of the Shropshire family of this name, and of the crest

"A Mayden loking-over a tower walls".

Edward Threlkeld, vicar of Tenbury was prebendary of Cublington 1571 to 1588; he does not appear in the list of chancellors of Hereford Cathedral printed in Havergal's *Fasti Herefordensis*.

It is unfortunate that we do not know the name of the man who first recorded facts and impressions of a visit to Herefordshire. A photostat copy of the diary and transcript have been given to the Woolhope Club by the Hon. Secretary and can be seen by those interested. Most of the arms illustrated in it are not to be found in Strong's work on the heraldry of the county.

NOTES ON EYE MANOR

By CHRISTOPHER SANDFORD, M.A., F.R.S.A.

There are other places called Eye, notably the Eye in Suffolk. It has been suggested that 'Eye' is derived from the Old English 'ig', a piece of dry land near water, but I prefer 'ea'. In Anglo-Saxon the word 'ea' was used for a river, or watery place; and a woman's 'eyes' are pools or lakes—as every poet knows. Clearly 'Eye'—spelt 'Eia' in a charter of 1135 and 'Eya' in documents dated 1291 and 1344—has some association with water. The French have 'eau' and étang (eau-stagnante) and we have 'eyot'. An island (eye-land) is land in the midst of water, and it is not uncommon to find an island compared with an eye, as, for instance, 'The Eye of the Baltic'. At any rate Eye on its small eminence in the middle of this valley was, until drainage was effected, surrounded by marshes and standing water. I have in time of flood paddled almost all round it in a canoe. Very long ago the river Teme may have divided into two streams as it flowed past Eye to join the Lugg at Leominster, instead of bending sharply eastwards a few miles away, as it does now. Geologists suggest that the alluvial soil of the valley was washed down from Shropshire.

We find the word 'Eye' used again but combined with 'ton' in the next valley at Eyton beside the Lugg. Incidentally this river perpetuates the name of the pagan deity 'Lugg'.

It is recorded that there was a manor at Eye in the reign of Henry III, and it gave its name to the family 'de Eia' later called 'de Eye'. Osbert de Eia was mentioned in a charter of 1135. Major A. E. W. Salt, M.A., to whom I am indebted for many items of information included in these notes, tells me that Walter de Eye's son Philip was a crusader. There is also a record of a priory of Augustinian canons at Eye, but it seems probable, from the context, that the priory was at Lye, near Aymestrey. There are in the garden the remains of a small rectangular building of early date, with a splayed loop-hole, which is called 'The Monks' Cell' and may have housed a hermit.

During the reign of Henry VI a daughter of the de Eye family carried the manor in marriage to the Blounts. Subsequently it changed hands three times before it was bought by a Barbados merchant, Ferdinando Gorges, in 1673. He restored the church and built the present manor house. Despite his Spanish Christian name he belonged to a large and distinguished Norman family living in Somerset, Chelsea, and abroad. There were many monuments to the Gorges in Chelsea old church, now destroyed, and elsewhere. One of Ferdinando's cousins married an ancestor of the Sloane Stanleys, who still own part of Chelsea.

Ferdinando seems to have been a common Christian name in the family, and it is important not to confuse various members bearing it. Great-uncle Sir Arthur Gorges of Chelsea had a son Ferdinando born in 1638, but our Ferdinando was a son of Henry Gorges of Buttcombe in Somerset. A Sir Ferdinando Gorges is said to have been a custodian of Mary Queen of Scots. The Sir Ferdinando Gorges called 'the father of colonisation in America' who founded Maine was our Ferdinando's great-grandfather's nephew. Our man was a prosperous sugar planter in Barbados, no doubt using African slaves bought in 'the black market' as cheap labour.

By 1680 the shell of Ferdinando's new manor house at Eye was finished—a stone above the porch records the date. The ceilings doubtless took some years to complete. They are among the finest Renaissance ceilings in the country and belong to the Naturalistic School. The elaborate plaster-work of Italian style, in which every rose, pomegranate, and leaf was modelled by hand, followed the Restoration of the Monarchy, and was continued for less than forty years, when it was abandoned in favour of complete castings. There are fewer than twenty houses containing similar plaster work in the United Kingdom today, among them Holyrood and Ham. It is worthy of note that at Eye there are ceilings of the kind in all the rooms on two floors, each with its own motif.

The British Museum has the design for the frontispiece of a book of designs for plaster ceilings called *The Art of the Plasterer*. No copy of it is known to exist. It is thought that many ceilings of the period were adapted from the designs in this work. The names of the craftsmen who made those at Eye are unknown. One panel is of exactly the same design as one at Holyrood. All the original work is beautifully modelled, but, at some period of restoration, some amateurish heads, arms, legs and paws have been supplied to replace broken parts.

The repetitive details and mouldings in the ceilings were cast, but the units of decoration—figures, flowers, and leaves—were modelled round pieces of strip-lead or wire. While still plastic they were adjusted into position and fastened to a sheet of canvas stretched between the beams above. When each ceiling was finished, liquid plaster was spread all over it from above, making it into a monolith.

The side panels in the south-east room show a huntsman with hounds; Diana (who has just wounded a stag with an arrow) and Hercules and the Hydra; a little man who seems to be holding a lion by the tail (identical with a panel at Holyrood); and a spaniel which has just flushed a wild duck.

In the south-west room is a little Bacchus astride a barrel—he has lost his original head and limbs. In the north-east room are the arms and crests of Ferdinando Gorges and his wife Meliora Hilliard. The arms are repeated in paint on the staircase-landing, where his have male supporters and hers female.

Worthy of notice are the fine staircase, the bolection-moulded wall panelling of pine and stone surrounds of the fireplaces, and the wooden cornices above them, all contemporary. The sash windows (in place of the original leaded-paned stone windows with mullions and transoms), the roof, the porch, and the dormers are of later date. Two of the original square-headed stone windows, now blocked, are apparent in the north wall.

In the west wall of the basement there is an elliptical stone lintel above a blocked doorway. Since this lintel is not supported by pillars, but built into the masonry, it may have been salvaged from the earlier house.

Landscape gardeners may like to note that in recent times the ground round the house has been raised almost to the floor level of the entrance hall. The stone-built walls of the basement, providing a plinth to the brick-built upper walls, are therefore nearly hidden. It may be regretted that the house should, in this way, have its legs covered, though the illusion that it is built on a mound is effective.

In 1944 an underground passage was discovered. A man can walk along it in a stooping position. It runs horizontally and has dry stone walls which may discount the supposition that it was a drain. It is covered with large stone slabs, and part of the floor

is paved where it runs, through the foundations of an ancient out-building, into what may have been a moat. There is a trap-door in the floor of the inner hall directly above where the passage appears to have entered the basement.

Henry Gorges, son of Ferdinando and Meliora, was M.P. for Weobley in 1708. Henry's son Richard married two Rodd daughters in succession. He died in 1749. In 1786 the manor of Eye was bought by Thomas Harley and remained with the issue of his second daughter Anne, wife of George the second Lord Rodney, until 1879. The manor house (at one time called 'Eye Court') was used as the vicarage from 1817, when Hon. Henry Rodney became vicar of Eye, until 1912. It subsequently changed hands four times before I bought it, to accommodate my family and the Golden Cockerel Press, in 1937.

EXCAVATIONS AT CLIFFORD CASTLE

By AIR COMMODORE DOUGLAS IRON

A start was made in May, 1950, to clear the rubble, saplings and undergrowth that had accumulated in the castle over a number of years. During the process the foundations of a tower similar to the Rosamund tower were uncovered at the south-west angle of the site, together with the curtain wall connecting it to the smaller tower at the south-east angle. It is now possible to trace the entire ground plan of the castle. A small amount of pottery, a bullet mould and some iron nails were found, but a search for the well was unsuccessful.

In the autumn of 1951 it was suggested to me that the tump in the field adjoining the castle might cover the ruins of a chapel of ease that was known to have existed in the locality. On investigation it was found that a structure did exist but it proved to be a long barbican or fortified gate house. The main features had been two round towers at the outer end and a square tower with a portcullis at the inner end. There were two additional walls, one on either side of the barbican and set at right angles to it; these may have been part of the curtain wall of the outer bailey.

After the general outline of the site had been determined it was visited by a representative of the Ministry of Works, who gave advice on the work in hand. A trench was then dug round the outer walls at footings' level and it was gratifying to find that quite a considerable portion of the original building was still standing, bearing in mind the smallness of the tump. This work was followed

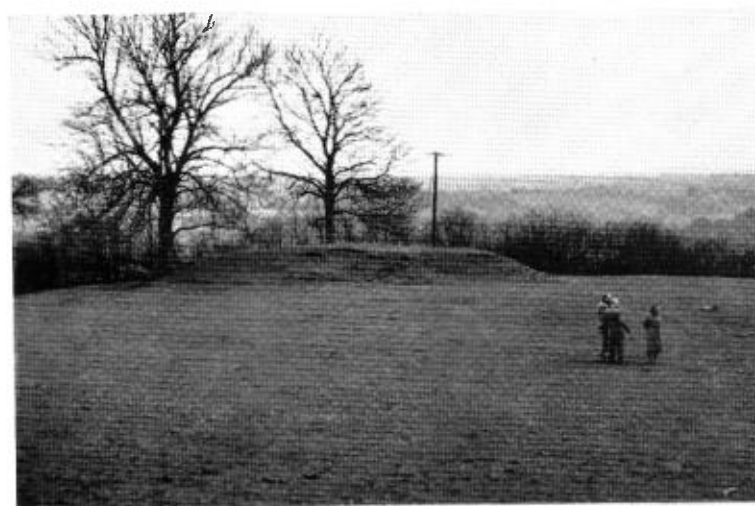
by the removal of the small trees on top of the round towers. Here again one was met with a pleasant surprise, as the top of the inner face of one of the towers was at least 10 ft. above ground level.

Work still continues and is now concentrated on the roadway through the barbican; about a third of the rubble has already been cleared from the outer end.

It is obvious from the lack of dressed stones in the rubble that the site has been systematically plundered; fortunately the stones in the vicinity of the portcullis have been spared and the lower grooves, together with the supporting structure are in a very good state of preservation. Finds have been few but include a spear head, an arrow head and a key of an early period.

The dimensions of the barbican are as follow :—length 60 ft., width of roadway 10 ft., walls 8 ft. thick, round towers 6 ft. thick, with inner diameter of 5 ft. 6 in., walls on either side of barbican 6 ft. 6 in. thick. (See illustration.)

To face page 28.



1. Long barrow.
2. The Barbican, Clifford Castle.

Photograph by M. Wight.
Photograph by I. Cohen.

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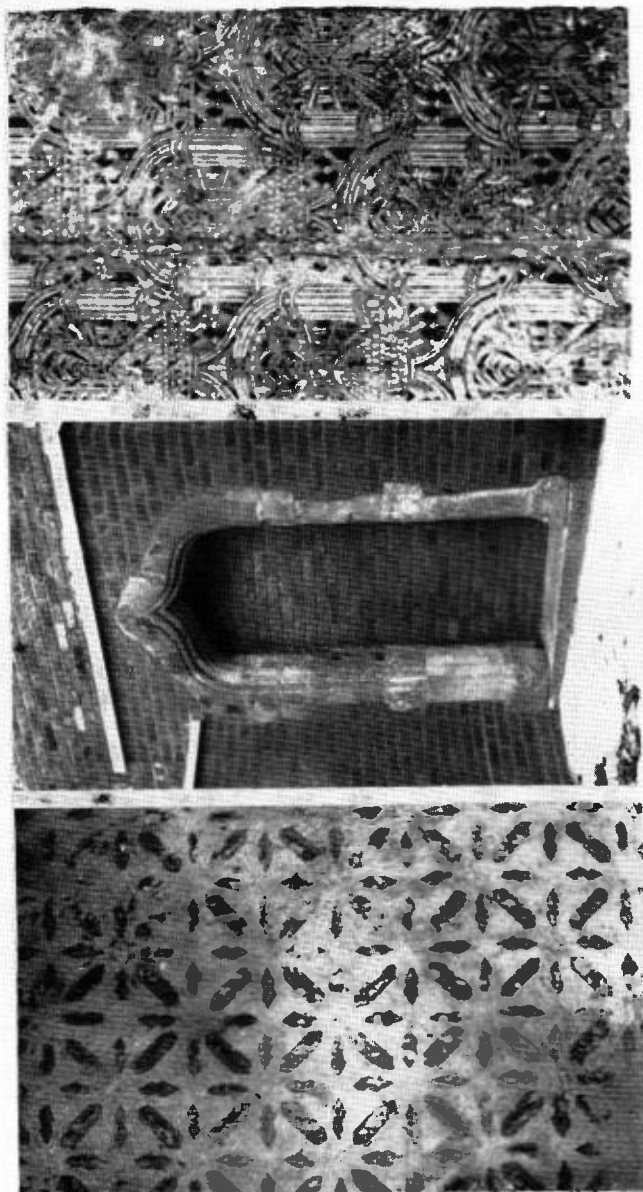
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To face page 28.



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2. The Barbican, Clifford Castle.

Photograph by M. Wight.
Photograph by I. Cohen.



Photographs by I. Cohen.
1. and 3. Seventeenth century wall paintings at the "Feathers", Ledbury.
2. Fifteen century doorway from Broad Street, re-erected in Church Street, Hereford, 1952.

REPORTS OF SECTIONAL EDITORS

REPORT ON ORNITHOLOGY

By Capt. H. A. GILBERT AND DR. C. W. WALKER, M.C.

The early months of the year were marked by the daily presence of larger flocks of common gulls (*Larus c. canus*) than we usually see in the county. The open winter and wet ground no doubt made our meadows and ploughlands more than usually attractive as a feeding ground, and a flock of 500 or more of these birds was to be seen daily passing northwards over Hereford in the morning and returning to the south about sunset. These as well as small parties of black-headed gulls (*Larus r. ridibundus*), lesser black-backed gulls (*Larus fuscus graellsii*) and a single herring-gull (*Larus a. argentatus*) fed in the county each day and returned at sunset to roost at the Severn estuary near the Wye mouth. The common gull flocks ceased visiting us on 12th April, having no doubt left for their breeding-stations in the north.

In the middle of February a single wild goose frequented fields in Sutton St. Nicholas parish. This was a pink-footed goose (*Anser fabalis brachyrrhynchus*) a species seldom seen in the county. It was probably an escaped tame bird as it had less fear of man than is generally shown by wild birds of this genus.

In February a cock blackcap visited the bird-table in the Rev. F. W. Allen's garden in Castle street, Hereford. The blackcap normally winters in Africa, but one occasionally fails to migrate and attempts to weather it out in England. A dead cock blackcap was picked up in Castle street in March: it may have been the same bird.

Mr. F. C. Morgan reported seeing a hen black redstart (*Phoenicurus ochrurus*) on 2nd March at Rock Farm, Lugwardine. Hereford Cathedral close, this bird's former winter haunt, was not visited this year.

Summer migrants appeared noticeably early in many cases. Several observers noted the chiff-chaff (*Phylloscopus c. collybita*) on the 12th and 13th March, and sand martins were seen flying over the Wye at Hereford on the 13th. Wheatears were seen near Kington by Mr. R. H. Baillie on 16th March, and the first cuckoo was heard by Tupsley residents on 7th April. A pied flycatcher (*Muscicapa h. hypoleuca*) was seen in Hereford on 12th April, and on the same date the nightingale (*Luscinia m. megarhyncha*) was heard at Checkley. The later species, however, such as swifts

(*Apus a. apus*), turtle-doves (*Streptopelia t. turtur*), etc., made their appearance at their usual dates.

This spring a pair of Canada geese (*Branta c. canadensis*)—the species, originally introduced, now ranks as a British wild bird—arrived at the lake in Brampton Brian park, and nested there. This is the first Herefordshire record of a nest of this species.

The hobby (*Falco s. subbuteo*) again nested in the county, but not at last year's nesting site.

Mrs. Longueville reported a pair of hawfinches (*Coccothraustes c. coccothraustes*) near Eardisley. These birds were seen on various occasions, and obviously had a nest near by.

Miss C. Armitage heard the whistling of quail (*Coturnix c. coturnix*) in a field of growing barley near her home at Bridstow during the early summer, and later two birds were seen there, but it is not known if they actually bred.

A male red-backed shrike (*Lanius c. collurio*) frequented the garden at Waldrist, Hereford and was watched by the late Admiral F. P. Loder-Symonds during July. Later the hen bird was seen, and eventually a brood of young birds. This is the only record of a shrike's nest in the county this year, though several pairs nested at Malvern near the county boundary.

The westerly gales of the last week in October caused the wreck of a vast flock of Leach's fork-tailed petrels (*Oceanodroma l. leucorrhoa*)—a rare sea-bird. Many were picked up on the shores of the Severn and others inland in various counties. One was found at Stretton Grandison, two at Pontrilas, one at Moreton-on-Lugg, and one at Walton, Leintwardine—five in all for Herefordshire. All were dead or in a dying condition, as the bird is incapable of feeding itself except out at sea, where it normally remains without approaching land except in spring and summer for breeding purposes. It then repairs to a few lonely islands, where it lays its single egg below a rock or in a burrow in the cliff-top. The numbers that met their fate on this occasion would appear to amount to a significant fraction of our total breeding population, and it is feared that this species of petrel will be even rarer in the future than hitherto.

REPORT ON ARCHÆOLOGY FOR 1952

By I. COHEN, M.I.Mech.E.

MEDIEVAL FIGURE NEAR HUNTINGTON.

Resulting from a letter from Sir Hugh Rhys Rankin a visit was paid to a pair of low stone cottages about half a mile west of Huntington Castle on the road to Newchurch, inside the Herefordshire county boundary, just before Llanabella Farm. The front wall of the cottages carries a stone slab with the date 1759. In

the south-west gable end is inserted the stone head of a woman wearing a wimple. It would appear to date from 1290 A.D. to 1310 A.D. Both tablet and small figure are in excellent condition though in an exposed situation at 1,000 feet level. The figure being high on the wall with a lean-to roof below, close inspection was difficult. (See illustration.)

15TH CENTURY DOORWAY FROM REAR OF 35, BROAD STREET, HEREFORD.

In last year's report it was stated that the doorway had been dismantled and the stones placed in store. In March of this year the doorway was re-erected with a dark brick surround close to the Church Street entrance to the new telephone exchange. When the building is extended it is intended that the doorway will be used as a means of access to the part of the exchange yet to be built. (See illustration.)

BARROW NEAR PETERCHURCH.

This was reported by Mr. Gavin Robinson and appears to be a long barrow with some small stones visible. Trees at the east end have roots showing at the top of the barrow about six feet above the base of other tree trunks at the surrounding level. The local farmer, Mr. Jones, had attempted to level the spot to fill in a nearby hollow, but found it too stony after removing a few barrow loads. It was visited on 21st March by Mr. Gavin Robinson accompanied by Mr. Savory of the Cardiff National Museum and Miss Wight, who took some photographs. Another visit was paid by Major Salt, Mr. Wood of Vowchurch, Miss Smith, and myself on 28th March. It was agreed that an attempt be made to dig an exploratory trench. The Office of Works sent a representative to inspect the barrow on 26th November and it is now scheduled. (See illustration.)

ARCHÆOLOGICAL DISCOVERIES IN HEREFORDSHIRE.

The Ordnance Survey have requested assistance in accurate plotting on the six inch scale map of any finds in the County. Col. T. W. M. Johnson has undertaken this work for the eastern part of the county and Mr. V. H. Coleman for the western part.

WATER MILL AT CLODOCK.

In company with Major Salt I visited Clodock to inspect a watermill. It has an octagonal wooden vertical shaft with a solid iron bevel wheel at the bottom. The wheels on the upper floor have inserted wooden gear teeth. The water wheel itself has also an octagonal wooden shaft. This type of construction is at least 150 years old.

OLD FIRE PLACES AT THE NEW INN, PEMBRIDGE.

Mr. Morgan and I visited the New Inn, Pembrige, and photographed three old fireplaces that had been uncovered during renovations. All three had oak side uprights with oak lintels. Two of these had hollow quadrantal stone sides, the third had flat angular sides and was built of small stones. We also inspected an annexe where it seemed very probable that removal of a small modern fireplace upstairs would disclose another.

An interesting wooden door bolt was found in working position in a ground floor room.

EXCAVATIONS IN TIMBERLINE WOOD.

During three days ending 2nd June, a party from the Hereford Archæological Group did some excavation at the Iron Age camp. At a depth of about two feet some fragments of charcoal were found. Wet weather made things difficult and the only discovery of any importance was a paved entry to the camp.

VISIT OF THE ROYAL ARCHÆOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.

At the request of the Institute an itinerary was arranged by the Woolhope Club for a week's visit to Herefordshire. A sub-committee was formed to deal with the arrangements consisting of: Chairman, Major A. E. W. Salt, M.A.; Secretary, Mr. V. H. Coleman; and Miss M. Wight, Col. T. W. M. Johnson, Mr. F. C. Morgan and Mr. I. Cohen.

The tour lasted from Monday, 14th July, to Saturday, 19th July, inclusive. Among the places visited were various buildings in Hereford, Kilpeck, Kentchurch, Grosmont, Llanthony and Abbeydore.

Apart from appropriate talks by members of the Institute addresses were given by Sir Cyril Fox, Major A. E. W. Salt, and Mr. F. C. Morgan.

SEARCH FOR A PRESUMED ROMAN ROAD FROM BIRLEY TO WELLINGTON.

On 13th August I accompanied Preb. S. H. Martin and Mr. V. Hatley to Dinmore Manor Farm and walked past the Mound, a small eminence surrounded by the remains of a moat, roughly some 50 yards by 30 (not actually measured), then returned by the "Brickyard" farm and through a wood towards Wellington to a point where the path drops steeply. No evidence of a Roman road was visible. We think that what we saw was a mediæval trackway, starting from Wellington, passing by Dinmore Hospital and going over the hill past the Moat in the direction of Stretford. Some of it was freshly covered with makeshift road material, mainly broken

tiles, and in one place there is an old sunken road close to the track, leading to an abandoned brickfield.

BUILDINGS OF ARCHITECTURAL OR HISTORIC INTEREST.

In the *Hereford Times* of 22nd August was printed a long list of Hereford buildings which the Ministry of Housing and Local Government considered to be of special architectural or historic interest. The list is entirely distinct from that of "ancient monuments" scheduled as such by the Ministry of Works, of which there are several in the city.

The new list includes practically all buildings erected before 1850. The effect is that no demolition nor alteration may be made unless at least two months' notice has been given to the local planning authority.

OLD HOUSES, NOS. 4 AND 5 KING STREET, HEREFORD.

In 1951 the Hereford City Council decided to demolish these reputed 15th century houses, the rear of which had collapsed, and build lavatories on the site. Mr. H. J. Powell of Scriven, Powell & James, the architects-in-charge, who wished to preserve the buildings as far as possible, appealed to the Ministry of Works, Ancient Monuments Department, and after sending one of their inspectors the latter agreed that the front part of the building should be preserved. Action is being taken accordingly and some modern extensions are being carried out in the rear. It is hoped that in due course Mr. Powell will give the Club an account of the measures taken to preserve as much as possible of these old houses.

HATCHMENTS AT HAREWOOD PARK CHAPEL.

Being informed that the house at Harewood Park was to be demolished and that the adjacent chapel might share the same fate I paid a visit in order to attempt a photograph of two hatchments, in the colonnade of the chapel, which latter seems to be in good condition.

WALL PAINTINGS AT THE FEATHERS' HOTEL, LEDBURY.

Through the kindness of Mr. F. W. B. Yorke of Birmingham, the architect-in-charge, I was able on September 30th to call and photograph some old wall paintings that had come to light during the course of some alterations.

Two of them were of a simple formal design of crosses, but the third had an intricate pattern of interlaced ogee work, somewhat resembling a series of arches, the colour in all cases being varying shades intermediate between green and black. One of the formal designs was on the wall of a landing which appeared to have once

been part of a room with a fireplace, a corner of which was just visible behind some furniture. The second was in an adjoining upstairs room. The ogee was on the end wall of an upstairs passage. The owners, Messrs. Mitchells & Butlers, have made arrangements so that the paintings will be preserved. (See illustration.)

WALL PAINTINGS IN HEREFORD.

Mr. F. C. Morgan reports having examined some wall paintings in the offices of Mr. O. B. Wallis about two years ago, but that the Woolhope Club had not been informed about them, though photographs have been taken.

OLD BOOKSELLERS OF HEREFORDSHIRE.

In the *Transactions of the Bibliographical Society* of March, 1952, are several interesting items. One is entitled "Pills and Publishing; Some Notes on the English Book Trade, 1660-1715", by John Allen. Apparently booksellers sold pills that were advertised in these publications, e.g., a work entitled "A Book of Directions and Cures done by . . . Nendicks Popular Pill" (1677?) stated that the pills were for sale by Mr. Lunt of Ledbury.¹ Another note states that Nathaniel Smith is listed as a bookseller in Leominster in 1679.

Neither of these booksellers has been recorded previously in our *Transactions*.

HEREFORD CATHEDRAL BELLS

These are now being overhauled, the clappers and ringing mechanism being renewed. The eighth bell, striking the quarter hours and used for daily service is cracked and is being recast. Three bells have been in the tower for more than 500 years, one being at least 600 years old. Four are over 250 years and three are from 80 to 150 years old. The cracked bell was recast in 1810 and bears the names of George III and of George Gretton who was Dean at the time.

HEREFORD CATHEDRAL CHEST AND LOCK.

A 15th century chest (illustrated opposite page 125 in the *Woolhope Transactions* for 1947) when overhauled recently was found to possess an unusual lock. To open the key is inserted, given half a turn, turned back to its original position and then withdrawn. To lock the chest an independent lever near the keyhole is pushed by the thumb and returns the bolt to the locked position.

FLINT ARROWHEAD.

The most important flint implement found during 1952 was the fine arrowhead picked up at Poston, by Miss Robinson. This is described on pp. 36-7, and is illustrated opposite p. x.

¹ Until at least as late as the third quarter of the 19th century it was customary for booksellers to sell medicines [Ed.].

ROMAN and other COINS

By PREBENDARY S. H. MARTIN, M.A.

KENCHESTER. Finder, Miss Audrey Davies.

Radiate head, otherwise illegible. c. A.D. 270.

Tetricus II, Gallic Emperor, A.D. 270-3. Rev. *Victoria Aug.*

Constantine I. Rev. *Gloria exercitus* (one standard) c. A.D. 330-7.

(1) House of Constantine, c. A.D. 337. Rev. *Victoriae laetac.*

(2) House of Constantine, c. A.D. 337. Rev. *Gloria exercitus.*

Per Miss R. Bartlett.

Tetricus II. Rev. *Pax.*

WEOBLEY. Found in garden by Mr. Burton.

Sestertius of Trajan. A.D. 97-107.

Finder Dr. J. H. Perrot.

Denarius of Vespasian. A.D. 70-71. Minted in Alexandria. Obv. illegible. Rev. *Eirene.*

HEREFORD. Found in the playground of Girls' High School, Widemarsh Street.

Copper coin of Orodes II, King of Elymais. A.D. 58-128. Obv. Bust of Orodes with a moustache, and wearing a mitre. Rev. Figure of Artemis; also *URUD MALKA MARI URUD* (Urud son of Urud). (British Museum catalogue of Aramaean Coins, Plate XL, No. 12.)

Probably found in Herefordshire.

Constantine I. *Gloria exercitus* (two standards) SMNS (mint of Nicomedia).

Provenance unknown.

As of Hadrian. A.D. 134-8. Obv. Hadrianus Augustus Cos III, P.P. Rev. *Fortunae reduci.* S.C. (Hadrian clasping hands with Fortune.)

Copper coin of Carinus. Obv. *Autokrator Marcus Aurelius Carinus Caesar* (i.e., issued during the reign of his father Carus). Rev. Eagle between two standards. L.A. means first year of his reign. Minted at Alexandria.

Dupondius of Domitian. A.D. 86. *Fortuna Aug.* SC. M & S 32b.

Nummus of Justinian I. A.D. 527-567. Obv. Head of Justinian. Minted at Constantinople.

LOZENGE-SHAPED FLINT ARROWHEAD FROM POSTON,
PETERCHURCH

FIELD No. 1180, GRID REF. ORDNANCE SURVEY SHEET 143/365382

This arrowhead¹, which is believed to be the only one of its type so far recorded in the County, was found in October 1952 in a field which had been deep-ploughed for reclamation from birch scrub and heather. It may, therefore, have lain originally at a depth of from 18 inches to 2 feet. It has been submitted to Miss L. F. Chitty, F.S.A., for examination, and she has very kindly furnished the following report on it:—

This lovely artifact is a lozenge-shaped arrowhead with the shoulder-angle rounded off; it is just over 2 inches long (l. 52, w. 25, th. 5 mm.), and is made from a thin flake of pale yellow-buff cherty flint (or chert) translucent towards the base, where there is beautiful ripple-flaking down one face and on the other minute retouching along the lower edge; the cherty opaque upper part of the implement is less finely worked: one edge is minutely serrated.

The tip of the original point has been broken off and the upper part of the edges show slight retouching after a thin patina had formed, when one shoulder-angle has been hollowed, presumably to assist in hafting; this secondary work is obviously that of a less skilled hand than that of the original craftsman.

It is, of course, akin to Long Barrow types of arrowheads, but in Reginald A. Smith's illustrations in his "*Flint Arrowheads in Britain*" (*Archæologia*, LXXVI, 1927), No. IV, pp. 81–106, the closest analogies appear to be from Yorkshire barrows, his Figs. 11–15, especially Fig. 11, No. 3, Calais Wold Round Barrow 13 (Mortimer, 40 Years, p. 164, Fig. 413), and the wonderful hoard of flint axes and implements found in a cairn under a (supposed) long barrow in Ayton East Field, Seamer Moor, N.R. Yorks. (Fig. 14), which is now assigned to the Early Bronze Age (R. L. S. Bruce-Mitford, *Antiquaries Journal*, XVIII, 1938, p. 283).

The material of which the arrowhead is made is also of great interest as among the scores of artifacts and chips recovered in the Golden Valley district there does not appear to be a piece of flint exactly similar in colour and texture. The Rev. B. B. Clark has made the following comments on the geological aspect:—

In my view the material from which this lozenge-shaped arrowhead is made is a cryptocrystalline silica, and could fairly be described as flint or chert.

These two minerals are very close to one another, being chemically and structurally the same, and the line dividing them is rather variable in literature. Some writers limit the name flint to nodules of cryptocrystalline silica from the Cretaceous rocks where they occur in the chalk, and similar material from the Carboniferous rocks they describe as chert. Others make a distinction in the mineral itself, using the name flint for the mineral that breaks with a conchoidal fracture and the name chert for that breaking with a flat fracture.

Following the last definition I should describe this as flint. It has the characteristic conchoidal fracture, i.e. the fracture has a certain roundness. The fractures have also the characteristic waves that develop when flint is broken. They are not too clear nor as fine as in some flints but they are there. The long marked depression on one face is, I think, a big wave in the original flake from which the implement was manufactured, made when the flake was struck from the core. It has the right hardness for flint, and the characteristic transparency at the edges.

Now there remains the real problem of the colour. Flint in its natural state varies from the palest shade of grey, sometimes milky and sometimes almost transparent, to the darkest grey and even black. When it is exposed to the weather it develops a surface which is quite white. This specimen is however, biscuit coloured. It could have been produced by the flint from which this was made being a pebble in one of the more ferruginous Tertiary

¹ Illustrated opposite p. x.

sands, or it could have been imparted by the implement being buried in ferruginous sand after it was lost. I find it difficult to decide between these two alternatives.

ADDITIONS TO THE DIPTEROUS FAUNA OF HEREFORD-SHIRE

BY KENNETH G. V. SMITH, F.R.E.S.

Reprinted by permission from the *Journal of the Society for British Entomology*, Vol. 3, Part 5, 12th January, 1951.

The following species were taken as prey of *Empis livida* L. (*vide Ent. Record*, April, 1949) at Bodenham, near Hereford, along the banks of the river Lugg and appear to be new records for the county.

Chironomidae: *Pentaneura monilis* Lin.

Mycetophilidae: *Mycetophila fungorum* Deg.

Sphaeroceridae: *Trichiaspis stercoraria* Meig.

Calliphoridae: *Pollenia varia* Meig. *Morinia nana* Meig.

Muscidae: *Limnophora triangula* Fall. *Limnophora scrupulosa* Zett.

Myopina reflexa Rob.-Desv. *Pegohylemyia gnava* Meig.

Erioischia brassicae Bouche.

Sepsis fulgens Meig. (Sepsidae) and *Sarcophaga subvicina* Rohnd. (Larvaevoridae) also taken at Bodenham appear to be new records. It may also be of interest to record the capture at Bodenham of a female *Scaeva pyrastris* Lin. (Syrphidae) var. *unicolor* (i.e. without the whitish lunules on the abdomen).

NOTES ON FONTS¹

The elaborately carved cover of Eardisley font was carved by the late Dr. Q. R. Darling of Eardisley during the 'eighties of last century.

[From information supplied by Mrs. E. Lee of Fownhope.]

Records in the Act Book of the Dean of Hereford's Court state that at Eaton Bishop in 1663 there was "a stone font out of repayer", and in the following year at Pipe there was "a font stone out of repaire [and] the church gate out of repaire". Members of the Woolhope Club may wish to make notes of these items in their copies of Mr. Marshall's work.

REVIEWS

KENYON, (KATHLEEN M.). *Beginning in archaeology*. Phoenix House, illus. 12s. 6d.

The members of the Woolhope Club who are interested in excavating the past will find this work of great value. Dr. Kenyon, after a general introduction on the meaning and framework of archaeology, devotes much

¹ Vide Marshall (G.), *FonTS in Herefordshire*.

attention to the technique of field work, illustrating this by numerous photographs and diagrams. As an experienced excavator, who has worked at many pre-historic and mediaeval sites in England and abroad, the author can give practical instructions to those who wish to take up archaeology as a profession, or to assist, as amateurs, at excavations under the guidance of experts. The diagrams are of exceptional value in showing how accurate records of finds are made. A chapter on field surveys and air photography brings the volume up-to-date. Students will find appendices on university training, schools of archaeology here and abroad, and posts for which they can train. Herefordians will be particularly interested in this volume, for Miss Kenyon is well known in the county for her work at Sutton Walls. The frontispiece is a photograph of work in progress there in 1951.

COUNCIL FOR BRITISH ARCHAEOLOGY. *Archaeological Bulletin for Great Britain and Ireland*. 4s. 6d.

This publication, which appears at intervals, has been produced to help students in all branches of archaeology and allied subjects by publishing county lists of papers issued by local and other societies and which can be bought separately. The offprints are classified. Many Woolhope Club papers are included.

ADDITIONS TO THE LIBRARY, 1952

- 333.3 Harley (Edward) Earl of Oxford. The Earl of Oxford's rental 1791-1797. lge. folio.
- 589.2 Cooke (M. C.). Illustrations of British fungi. To serve as an atlas to the "Handbook of British fungi". 1881-1891. 8 vols. col. plates.
- 634.1 Bull (Henry Graves). The Herefordshire pomona, containing coloured figures and descriptions of the most esteemed kinds of apples and pears. 1876-1885. 2 vols. lge. fol. col. plates, illus.
- This copy was especially bound for presentation to Mrs. Bull by Dr. Bull. Together with the works by Cooke and Ronalds, it has been given to the Club library by Miss Leila Bull.
- 634.1 Ronalds (Hugh). *Pyrus malus Brentfordiensis*; or, a concise description of selected apples. 1881. col. plates, 4to.
- 647.1 Harley (Edward) earl of Oxford. The Earl of Oxford's ledger (of private accounts) c. 1791-1797. MSS, lge. fol.
- 726.5 Crossley (F. H.). On the importance of fourteenth century planning in churches of Cheshire. 1937. illus.
- 912.4244 Davis (John Lambe). A Survey of the manors of Moccas, Bredwardine, Grove, Radnor, Wilmaston and Cusop [etc.] belonging to Sir George Cornewall, bart., 1772. MS. maps, 4to. With terrier.
- 912.4244 Bach (John). To J. Whitmore, Esq., the following maps of his estates in the county of Hereford are humbly dedicated, 1771. Lge. fol. Coloured maps and terrier of Monnington.
- 913 Kenyon (K. M.). Beginning in Archaeology. 1952. illus., diags.
- 913.06 Royal Archaeological Institute of Great Britain. Programme of the summer meeting at Hereford, 1952. plans.
- Has plans and descriptions of many of the numerous places visited.
- 942.44 Powell (J.). Reference to the plans and valuation of the estates of Captain Kyrwood . . . in Blakemere, Moccas, and Brobury and county of Hereford. 1791. MS. lge. 8vo. One imperfect plan of Kinley estate on parchment, and a few papers are included.

Woolhope Naturalists' Field Club (HEREFORDSHIRE)

PROCEEDINGS, 1953.

THE FIRST SPRING MEETING WAS HELD ON THURSDAY, 5TH FEBRUARY, 1953, AT 3 P.M.

Major A. E. W. Salt, President, in the chair.

The President reported the death of two members, the Rev. C. H. Stoker and Mr. S. R. Taylor and the members stood in silence in sympathy. Mrs. Morris wrote to thank the Club for its expressions of sympathy on the death of her husband, Mr. E. H. Morris. Miss Pugh wrote on behalf of her father to thank the members for their letter of remembrance and good wishes for 1953.

A letter had been received from the Ministry of Works notifying change of ownership of Avenbury Church and Urishay Castle and Chapel, and also giving a list of Guardianship Monuments, i.e. Arthur's Stone, Goodrich Castle and Rotherwas Chapel (Crown Property), that Monuments numbered 35, 124/135, 137, 140, 142, and 143 had been scheduled and that the area of 135 had been altered.

Mr. M. L. Edge was declared elected.

Mr. C. W. Phillips, F.S.A., Archaeological Officer to the Ordnance Survey then gave a lecture on "The Work of the Archaeological Branch of the Ordnance Survey", in which he showed how archaeology was bound up with the Ordnance Survey from its inception, and gave particulars of the present day branch.

A vote of thanks, which included thanks to Dr. Malkin for giving hospitality to Mr. Phillips, was proposed by Col. T. W. M. Johnson, and carried.

THE SECOND SPRING MEETING WAS HELD ON THURSDAY, 19TH FEBRUARY, 1953, AT 3 P.M.

Major A. E. W. Salt, President, in the chair.

The minutes of the meetings of the 25th November, 1952, and of the 5th February, 1953, were read and confirmed.

The following were elected members of the Club: Mr. P. T. Gibson, Mr. Frederick Reginald Haines.

Col. T. W. M. Johnson then read a paper on "Captain Yarranton and Herefordshire". This is printed on pp. 39-42.

A paper "More about Epiphanius Evesham", was given by the Hon. Secretary, who showed slides of the work of the Herefordshire sculptor at Blore, Staffs. and Quorn, Lincolnshire.

THE THIRD SPRING MEETING WAS HELD ON TUESDAY, 3RD MARCH, 1953, AT 6.30 P.M.

Major A. E. W. Salt, President, in the chair.

The Hon. Secretary said that Dr. Wood had had the misfortune to have a leg amputated. It was agreed that a letter of sympathy be sent to him.

The Minutes of the meeting of the 19th February were read and confirmed.

Mr. F. M. Kendrick then read a paper "The Botany of Herefordshire". This is to form a chapter in the Centenary Volume.

On the conclusion of the paper Mr. Kendrick was congratulated by several members of the Club, and he answered questions put to him.

A vote of thanks was moved by Mr. P. J. T. Templer.

THE FOURTH SPRING MEETING WAS HELD ON THURSDAY, 12TH MARCH, 1953, AT 3 P.M.

Major A. E. W. Salt, President, in the chair.

The minutes of the meeting of the 3rd March were read and confirmed.

A letter of thanks for the Club's sympathy, in which he made light of his operation, had been received from Dr. Wood.

A letter, asking for dialect equivalents of the list of words enclosed had been received from Mr. Bachmann of Derby. Mr. J. C. Price of Kingsland kindly agreed to obtain the requested information.

The President exhibited a quantity of pottery found by the staff and pupils of the P.N.E.U. School at Brampton Bryan. The date was considered to be principally of the 17th century.

Professor J. N. Hutton, formerly professor of anthropology at Cambridge, then gave a lecture entitled "Standing Stones in a Surviving Culture: the method and significance of their erection", which was illustrated by lantern slides.

Professor Hutton said that he believed that many antiquaries did not realise that standing stones were still being erected in Madagascar, on the hills of Assam and in the Indian Archipelago. The methods employed might throw light on those formerly used in this country, though the significance of the monoliths was apt to change considerably. Professor Hutton described the systems of quarrying and erection and said that the cult was connected with fertility.

A vote of thanks was moved by Mr. I. Cohen.

THE FIFTH SPRING MEETING WAS HELD ON TUESDAY, 24TH MARCH, 1953, AT 6.30 P.M.

Major A. E. W. Salt, President, in the chair.

The Minutes of the meeting of the 12th March were read and confirmed.

The Hon. Secretary stated that a deed of guardianship from the Ministry of Works for the Mortimer's Cross mill had been received. It will be opened to the public after renovations are completed.

The Hon. Secretary had been in communication with Mrs. G. H. Jack in connection with the hoard of bronze implements found some years ago near Leintwardine. Mrs. Jack had replied saying that Mr. Jack's effects were still in London but that she would remember the Woolhope Club concerning these implements when they were removed from storage.

A quantity of pottery believed to be Roman was exhibited by Col. T. W. M. Johnson. It had been found by Mr. Heath near Putley Rectory.

Mr. J. N. Jackson then read his chapter on "The Historical Geography of Herefordshire" for the Centenary Volume.

A vote of thanks was moved by Mr. P. J. T. Templer.

THE SPRING ANNUAL MEETING WAS HELD ON THURSDAY, 16TH APRIL, 1953, AT 2.30 P.M.

Those present included Major A. E. W. Salt, President, in the chair, the President-Elect, Mr. I. Cohen, the Lord Bishop of Hereford and forty-two other members.

The Minutes of the meeting of the 11th December, 1952, were read and confirmed.

The retiring President, Major A. E. W. Salt, M.A., then reviewed the events of his year of office, including the presentation to himself on his marriage, the conferring of the honorary degree on Mr. F. C. Morgan, the visit of the Royal Archaeological Institute and the unweaving of the Marshall Library. He then read his Presidential address on "Herefordshire Poetry".

The new President, Mr. I. Cohen, M.I.Mech.E., was then installed. He remarked that he was the fifth president to take office in a Coronation year. Previous presidents had been experts in the field of the Club's activities, but he thought that a mechanical engineer could be of use to the Club and he was prepared to work hard.

The Hon. Treasurer read a statement of accounts.

Mr. Widgery had again kindly audited the accounts, which are printed on pages xxxvii and xxxviii. It was proposed by Col. T. W. M. Johnson, seconded by Mr. G. H. Butcher, that the accounts be adopted. This was carried.

The Assistant Secretary stated that the membership at the end of 1952 stood at 376 made up as follows: Hon. Members 11, Ordinary Members 357, Library Members 8.

New members in 1952 totalled 25. Losses were 24, made up as follows: Members died 12, Members resigned 9, Members struck-off 3.

The Hon. Librarian, Mr. F. C. Morgan, then gave his report and said that he hoped that the library, especially the Marshall library, will be more widely used.

Mr. W. J. Lewis asked if a printed catalogue could be issued. Mr. Morgan replied that the cost would be prohibitive, being in the region of £200 to £300. It was proposed by Mr. W. J. Lewis, seconded by Captain O. B. Wallis, that the insurance on the volumes be increased to £2,000. This was carried.

Mr. Morgan suggested that the price of volumes published by the Club of which there was a surplus be reduced to half to members. It was proposed by Mr. Shaw Wright, seconded by Mr. V. Higham, that the question be considered by the Central Committee. This was carried.

For one of the whole day field meetings, the President suggested a circular tour with Hereford as its centre. This was agreed to.

It was proposed by Dr. A. W. Langford, seconded by the Rev. B. B. Clarke, that the circular tour be Ladies' Day. This was carried.

Major Salt then gave a report on botany for 1952.

It was proposed by Captain O. B. Wallis, seconded by Mr. F. T. Hocking, that "the Hon. Secretary having explained the circumstances attending an anonymous gift of £25 to the Club for the purposes of excavation or research, it is hereby resolved that the sum be returned to the donor with an expression of gratitude for his generosity". This was carried.

Sites for excavation at St. Weonards and Dorstone were discussed and it was agreed that that of the Long Barrow at Dorstone be supported, provided that an expert was available to direct it.

Dr. R. T. Thomson was elected a member of the Club.

THE FIRST FIELD MEETING FOR 1953 WAS HELD IN THE EVESHAM DISTRICT ON TUESDAY, 26TH MAY, 1953.

The President, Mr. I. Cohen, and 33 members and guests attended.

In a coach and two private cars the party left the City Library at 9.30 a.m. and travelling *via* Ledbury, made the first stop at Crowle. At Huddingham, nearby, the house where the Gunpowder Plot was hatched was seen from the outside and the church was visited. The next stop was at Rous Lench. Here the Rector, the Rev. J. R. Audry-Cound, described the church and entertained

the party with anecdotes. Lench Court was then visited and a picnic lunch was eaten in the grounds. Unfortunately it was not possible to see inside the Court, but the Rector showed the party round the extensive grounds. *En route* to Cropthorne, the interesting navigation weirs at Fladbury were seen. At Cropthorne church the party was welcomed by the Vicar, who described the church and spoke of its history. The pre-Norman cross head, found in the wall of the sanctuary, proved of great interest. Tea was partaken at the pretty village of Elmley Castle and this was followed by a business meeting.

The minutes of the meeting of the 24th March were read and confirmed. The President announced that since the last meeting four members had died and asked the meeting to stand in silence. The members were Mr. P. J. T. Templer, Fr. Buisseret, Mr. J. J. S. Powell, and Mr. E. C. Romilly. In a tribute to Mr. Templer the President said that he had been president on two occasions and treasurer for 16 years. He had always worked hard for the Club, and his loss was a severe blow.

A spur had been found at Goodrich Castle by a pupil of the Ross Primary School and the President invited members to give an opinion on it.

The President stated that a wooden cross at the "Old Cross" restaurant at Winforton had been used to hang advertisement signs on, and that he had written to the owner, Mr. Howells, pointing out that this offended the susceptibilities of a number of members of the Club. Major Salt on behalf of the C.P.R.E. had also written. It was proposed by Major Salt, seconded by Col. Johnson "that the Club approves the action taken by the President". This was carried.

A collection of photographs of water mills, mainly in the county, taken by Bro. James Oakley was circulated among the members.

Col. Johnson stated in connection with the recent finds of Roman pottery near Putley rectory that Major Lucas of the Archaeological Branch of the Ordnance Survey, together with Major Riley, the previous owner of the site, had made a preliminary survey and hoped to pay another visit shortly to ascertain, if possible, the size of the site. The pottery found was now at Reading University. Mr. J. E. E. Oakley stated that the mark stone at the foot of the signpost in Credenhill had been removed.

The party then returned to Hereford.

THE SECOND FIELD MEETING WAS HELD IN THE WHITCHURCH DISTRICT ON SATURDAY, 6TH JUNE, 1953.

The President and about fifty members and guests attended.

In two coaches and a number of private cars the party left the City Library at 2.30 p.m. and travelling *via* St. Owen's Cross stopped at the Old Forge, Goodrich. Here, by kind permission of Mr. M.

Truscott, were seen the weir and fish ladder on the Garen stream and the building which housed the forge, which later was used as a corn mill. On the bank of the Wye, nearby, the old warehouse and remains of the quay used for barge traffic, were visited.

The party then went on to the quarry near King Arthur's Cave. Here the Rev. B. B. Clarke gave a talk on the carboniferous limestone. After a short walk the cave was reached and Mr. Clarke spoke of the excavations which had been carried out in the cave and of the artifacts found there and of its place in history.

The next stop was at Wyaston Leys, where, by kind permission of Brig. R. P. Waller, the party ate their picnic tea in the beautiful grounds and saw a collection of some of the mammal bones and other relics found in King Arthur's Cave. These are of great interest, many having been excavated by the Rev. W. S. Symonds, the founder of the Club. Brig. Waller then gave a short account of the history of the House, after which he was thanked by the President.

The party then divided, one coach returning direct to Hereford. The other went on to Llangarron to visit the church where the Rector gave a talk on its history. His remarks were supplemented by the Hon. Secretary, Mr. F. C. Morgan.

OLD FORGE, GOODRICH

By the courtesy of Mr. Mark Truscott we were enabled to inspect the Old Forge and adjacent objects of interest.

The forge itself was built in the early 1700's and possessed a water wheel of which only part of the rim remains. It was used for grinding corn up to 1914 and had a vertical wooden shaft. Inside the mill is a flood mark of 1947. The main sluice gate is closed permanently but there is an eel trap alongside fitted with a small sluice. About 100 yards upstream is a V shaped weir, one half forming a fish ladder with pools at each step. Beside the weir is a pump house for filling a reservoir at the hill top to supply water to Marstone and local houses.

Opposite the forge is a stone building, originally a shepherd's hut and later a bake house and shop, now used as a cow shed. One side of this building consists of the quarried side of a local sandstone hill and consequently drips with water at times.

Nearer the road is a ruined building partly destroyed by fire in 1915. This was originally a stable.

Old Forge itself had its furnace on the east of the main road, probably near where the warehouse now stands. It was owned by George, Earl of Shrewsbury in 1575 and was probably where "Roaring Meg" was cast for the siege of Goodrich Castle in the Civil war. It was leased to George Kemble of Pembroke Castle in 1633. The furnace was rebuilt on the old foundation about 1656 but the forge was rebuilt at New Mill. The floodgates were repaired in 1646.

I. COHEN.

THE THIRD FIELD MEETING CONSISTED OF A CIRCULAR TOUR AROUND THE COUNTY OF HEREFORD AND WAS HELD ON THURSDAY, 9TH JULY, 1953 (LADIES' DAY).

The President with 100 members and guests attended.

In three coaches and private cars the party left the City Library at 9.30 a.m. and proceeded to Vowchurch church. Here



FISH LADDER AT OLD FORGE, GOODRICH.



Photographs by I. Cohen
PIGEON HOUSE, NETHERWOOD.

Col. T. W. M. Johnson gave details of its history, pointing out the wooden pillars and beams with which John Abel relieved the weight on the walls.

The party then went on to Grosmont, *via* Pandy and the Ridgeway, from which magnificent views were obtained. At Grosmont, the President, Mr. I. Cohen, described the church and castle.

The next stop was at Skenfrith, where a picnic lunch was eaten. The castle and church were seen, Mr. F. C. Morgan describing the latter.

Proceeding *via* Ross the church at Much Marcle was next visited. Col. T. W. M. Johnson gave a short description of this lovely and spacious building.

The next stop was at Ashperton church. The vicar, the Rev. S. M. Benjamin, described the building.

Hampton Court was next visited. Owing to the indisposition of Viscount Hereford it was not possible to see the whole of the interior, but the party were privileged to see the Great Hall and Chapel, which were described by Col. Johnson, who also gave summary of the Court's history. Afterwards the grounds were visited.

The party had tea at Sarnesfield Court where a business meeting was held. Prior to this the President explained that the purpose of the tour was to give members and guests an illustration of the diversity of landscape, buildings, *etc.* in the different parts of the county.

Dr. R. W. Pocock then gave a short talk on the geology of the county which mainly caused the diversity spoken of by the President.

The latter thanked Dr. Pocock for his remarks—he also thanked Col. T. W. M. Johnson and Mr. F. C. Morgan for the parts taken by them in the tour.

The minutes of the meetings of the 26th of May and the 6th of June were read and confirmed.

It was reported that Major Salt and the Rev. B. B. Clarke had visited Mr. Howells, the proprietor of the Old Cross restaurant at Winforton. The name "Old Cross" comes from a preaching cross, the base of which still exists nearby; the cross complained of had been erected recently as an advertisement. It was agreed that one arm of the latter should be removed and there could then be no objection to it. This action was unanimously approved by the meeting.

Letters of thanks, for the letters of sympathy sent by the Club, had been received from Mrs. Templer and Mrs. Powell.

It has been reported that a neolithic arrow head had been found on Wigger Farm, Pontrilas.

This concluded the meeting and the return journey to Hereford was made *via* Moorhampton, Mansell Gamage, Bridge Sollars and Madley.

SURVEY OF TOUR BY THE PRESIDENT

Contrary to usual custom this meeting has been arranged in the form of a circular tour of Herefordshire, the route being situated roughly midway between Hereford, the centre of the county, and the county boundaries, so far as existing roads and bridges permit, the boundary having been overstepped slightly near Grosmont. Its purpose is to give a general picture of the diversity of landscape encountered in the county and an idea of the uses to which the land is put as the geological character varies. Note should be taken of the differences in local architecture, including that of the churches and castles that form such a prominent feature of the Herefordshire landscape.

We began by crossing the Wye and proceeding for a few miles along a comparatively level road more or less in the Wye Valley in a district devoted to mixed farming. Entering the Dore Valley we encounter a much larger proportion of grazing land and this tendency is accentuated as we cross the high ground into the Escley valley where we have the largest proportionate sheep population encountered on our tour. This proportion is only exceeded near the Radnorshire border which lies outside our route, and in one or two other regions also outside the route. Nearing Ross we meet the mixed farm again and in the Ross area itself market gardening comes into the picture.

From Ross to Much Marcle, Ashperton and Burley Gate the scene changes to hops and fruit production and riverside grass lands as we approach Hampton Court. Not far from here is the district where the highest class of Hereford cattle are bred. Before Leominster is a milk processing factory well served from the surrounding pasture land. Our tour concludes with a region of mixed farming.

Between Michaelchurch Escley and Pandy we have the Black Mountains continuously in view to the west. The ridge thence to Grosmont affords (in clear weather) magnificent views in all directions, including, if rearward views are possible, a splendid view of the Skirrid to best advantage. Grosmont to Skenfrith is a run with pleasant scenic attractions, but thereafter the views become less dramatic except for a short stretch after leaving Ross and later the scenery is mainly of the man-made type with orchards and well kept farms predominating. Leaving Sarnesfield we see the rising wooded ground of Ladylift and pass the verge of the Garnons estate, where forestry has been brought to a fine art by Sir Richard Cotterell.

Church architecture has been described at several stopping places but domestic and farm buildings vary according to district. Thus we have brick in the larger towns such as Ross and Leominster, with half timber in the lower lying districts. Near the Black Mountain district the availability of stone and the comparative scarcity of wood make stone buildings the most favoured type.

Compared with other English counties there is an almost total absence of factory chimneys. There are no heavy industries. We have passed a fruit preserving factory near Madley, a cider factory at Much Marcle and what may be news to some, a small tweed factory within a mile or so of our route. There is a small oil refinery as well as a small precision tool factory in Ross. One or two saw mills lie somewhat off our route at Pontrilas and Eardisley. An agricultural engineering works in Leominster and a brewery in Ross almost complete the picture.

THE FOURTH FIELD MEETING WAS HELD IN THE FOREST OF DEAN DISTRICT ON THURSDAY, 13TH AUGUST, 1953.

The President, Mr. I. Cohen, M.I.Mech.E., and about 60 members and guests were present.

In two coaches and private cars the party left the City Library at 9.30 a.m. and travelled to Monmouth *via* St. Weonards. Thence

the road to Staunton was followed, just beyond which, on the Newchurch road, a stop was made. Here Mr. F. M. Kendrick gave a short talk on the Forest of Dean mainly from a botanical and geological point of view.

Before reaching Newland the Newland Oak, reputed to be the oldest tree in the forest, was seen.

At Newland the parish church was visited and this Col. T. W. M. Johnson described.

The next stop was at St. Briavels to visit the Castle. This former centre of administration of the Forest miners is now used as a Youth Hostel. The Warden of the hostel, Mr. F. L. Barber, acted as a guide. Lunch was eaten in a field nearby overlooking the Wye valley.

Passing through Bream, the Scowles, extensive pits left by iron-ore digging in Roman times, were visited. Here a paper written by Rev. Preb. S. H. Martin, was read, in his absence through indisposition, by the President, who also contributed a few notes. (See p. xxxv.)

Members then had an opportunity of exploring the Scowles, which are covered by a beech forest.

The next stop was at Blackpool to see the Roman road paving and the Drummer Boy Stone.

The route thence was through the Soudley Valley and Little Dean, where a stop was made at Pleasant Stile to view the great loop of the Severn at Newnham. At the last named place tea was eaten at the Unlawater Hotel followed by a business meeting.

The President gave a history of St. Briavel's Castle in amplification of Mr. Barber's remarks.

The minutes of the meeting of the 9th July were read and signed.

Arising out of the minutes, Major Salt said that he had sent a further letter on behalf of the C.P.R.E. to Mr. Howells of Winforton, as the work on the cross had not been carried out.

A letter had been received from the Town Clerk in connection with an application to re-build Nos. 3 and 4, High Street, Hereford by Messrs. Littlewoods. These are scheduled properties. The application having been refused, an appeal had been made and an inquiry was to be held. The Club unanimously agreed to support the City Council in the fight to preserve these buildings and requested the President and the Hon. Secretary to appear at the inquiry.

The President and the Hon. Secretary had visited the Pigeon House at Netherwood Manor and considered that £100 would be needed for repairs to make the building safe, though permanent repairs would cost £500. In view of its historical associations, it was proposed by Major A. E. W. Salt, seconded by Mr. E. H. Cope, that all possible means be taken to preserve the building. This was carried unanimously.

Major A. E. W. Salt stated that the quarry company on the Downards had respected the line limiting their working, but that work in another direction now endangered the amenities of the area. He explained that Mr. Christopher Cadbury and he had been to the area.

On the return journey to Hereford a stop was made at Gunn's Mills where guns were made for the 17th century Dutch war. (See pp. xxxv-xxxvi.)

THE FIFTH FIELD MEETING FOR 1953 WAS HELD IN THE LUDLOW DISTRICT ON SATURDAY, 29TH AUGUST, AT 2 P.M.

The President, Mr. I. Cohen, and about 50 members and friends were present.

In two coaches the party left Hereford at 2 p.m. and proceeded to Tenbury, where a short stay was made, and then went on to Burford. Here a description of the most interesting church was given by Mr. H. J. Powell, who afterwards described the fine series of Cornwall monuments and that of the daughter of John of Gaunt.

Leaving Burford the party had a picnic tea on the hill overlooking Ludlow on the way to Gatley Park. This fine and interesting house was visited by kind permission of Capt. and Miss Dunne. A short history of the descent of the Manor of Leinthall Starkes and Gatley Park was given by the Hon. Secretary and the party were allowed to see documents relating to the Park and the various rooms in the house.

THE SIXTH FIELD MEETING FOR 1953 WAS HELD ON THURSDAY, 17TH SEPTEMBER.

A party of 40 members including the President, Mr. I. Cohen, left the City Library at 9.30 a.m. and proceeded to Clodock, where the church was described by the Hon. Secretary. Afterwards the members were hospitably given tea and biscuits by Capt. R. V. Alison. A visit was then paid to the mill nearby, by permission of Mr. Gwillim, where the stream is used as power to grind corn. It was noticed that the large mill wheel was made at Leominster by R. W. & W. Miles in 1868 and is in good condition. A turbine used to supply electric current was also seen. Mr. Gwillim had written to say that this had cost a few pence only to run in the past few years.

The next stop was at Partrishow, where lunch was eaten and afterwards Col. T. W. M. Johnson described the church with its particularly fine screen.

White Castle was next visited and was described by the Hon. Secretary.

Proceeding to Monmouth, tea was provided at Sterrett's café. The business of the Club was then transacted. The minutes of the two previous meetings were read and signed by the President,

The President reported that so far nothing had been done to improve the cross at Winforton, but that only that morning the owner had promised to cut off the top soon.

The President announced that the following gentlemen had been elected members of the Woolhope Club :—

Messrs. J. J. D. Cole, R. W. Williams, E. Evans, W. D. Harrison, H. S. Powell, R. P. Shaw, G. P. Vaughan and the Rev. D. A. L. Maclean.

Col. Johnson, on behalf of the members, thanked the President and Hon. Secretary for their work in organising the field meetings for 1953.

After the meeting the party proceeded to Garway to see the church and pigeon house, which were ably described by the President.

THE FIRST AUTUMN MEETING FOR 1953 WAS HELD ON THURSDAY, 22ND OCTOBER, AT 2.30 P.M.

Mr. I. Cohen, President, in the chair.

The minutes of the meeting of 17th September were read and signed.

Mr. Cohen had written to say that he had recently seen red squirrels on Bringewood Chase and near Winforton. It would seem that they were not so scarce as had been feared.

Miss K. M. Kenyon had written to say that her report on the Sutton Walls excavations would be published in 1954 and suggested that offprints be obtained by those members desiring them.

The Hon. Secretary was pleased to announce that after some initial difficulties he had been able to arrange with the British Publishing Co. of Gloucester for publication of the Centenary Volume. The President announced that at the last Committee meeting it had been agreed to realize assets to raise sufficient money to provide each member with a free copy, but that in view of the large drain on the Club's finances he hoped that as many members as possible would give a donation towards the cost.

Mrs. B. B. Clarke gave to the Club, through the Rev. B. B. Clarke, a copy of *Merseyside—a Scientific Survey*, published by the British Association.

The following gentlemen had been elected members of the Club :—

Mr. Peter Williams, Mr. B. A. Jones, Capt. R. V. Alison, Mr. P. T. Croft, Mr. H. Adams.

The Ven. A. J. Winnington-Ingram then gave a paper entitled "The Rebuilding of Hereford Cathedral, 1786 to 1796". (Printed on pp. 42-54.) At the conclusion the lecturer answered questions. A vote of thanks proposed by Col. T. W. M. Johnson was carried with acclamation.

THE SECOND AUTUMN MEETING FOR 1953 WAS HELD ON THURSDAY, 5TH NOVEMBER, AT 2.30 P.M.

Mr. I. Cohen, President, in the chair.

The minutes of the meeting of 22nd October were read and confirmed.

The Hon. Secretary gave a short report on the public inquiry which he had attended on the two previous days in connection with Nos. 3, 4 and 5, High Street, Hereford.

Major A. E. W. Salt then gave an account of a meeting called by the County Council held at Bromyard which he had attended as representative of the Club and of the C.P.R.E., the purpose of which was the preservation of the pigeon house at Netherwood. Also represented were the Bromyard R.D.C., the County Planning Officer, and the County Architect. The last named considered that £200 would cover the cost of restoration, but said that he would prepare a more detailed estimate. It was unanimously agreed that, subject to approval of the County Council, the pigeon house be acquired and that it be vested in a number of trustees representing the bodies mentioned and also the Pilgrim Trust.

On view was an old baking oven which had been discovered during alterations to a house in Monnow Street, Monmouth, and had been sent to the Club by Mr. Edwards of Hereford.

Col. T. W. M. Johnson then read a paper on "The Diary of George Skyppe of Ledbury". This recorded happenings in the life of a Ledbury gentleman in the late seventeenth century and proved most interesting. After the President had commented on the paper and Col. Johnson had answered questions, the Rev. B. B. Clarke proposed a vote of thanks, which was carried with acclamation. (See pp. 54-62.)

THE THIRD AUTUMN MEETING FOR 1953 WAS HELD ON TUESDAY, 24TH NOVEMBER AT, 6.30 P.M.

Mr. I. Cohen, President was in the chair.

The minutes of the meeting of the 5th November were read and confirmed.

The Hon. Secretary stated that Capt. Wallis was unable to be present owing to illness and it was agreed that a letter of sympathy be sent to him.

The Hon. Secretary said that he had received a message from Major Salt that the County Council had agreed to assist in the reconditioning of Netherwood pigeon house.

Mr. J. N. Jackson had written to the President saying that he was leaving Hereford in January next and this necessitated his retirement from the Central Committee. He wished to thank the President and the Club for the assistance he had received.

A letter from Mr. J. G. Williams of Rosemont, Lion Street, Hay-on-Wye, had been received informing the Club of the formation

of the Hay Historical Society and asking for assistance with records, etc. Woolhope Club members living in the vicinity were invited to meetings.

Col. Johnson announced that the Monmouth Grammar School had been excavating the Iron Age camp on Little Doward.

Mr. F. C. Morgan then exhibited a series of slides of bosses and stops entitled "More bosses and carvings in Hereford Cathedral". These showed the variation in the richness of carvings in the north and south choir aisles and the north-east and south-east transepts.¹

A vote of thanks was moved by the Ven. A. J. Winnington-Ingram who pointed out the difficulties in photographing these bosses high up on the ceiling and thanked Mr. Morgan for revealing their beauties.

THE FOURTH AUTUMN MEETING WAS HELD ON THURSDAY, 3RD DECEMBER, 1953, AT 2.30 P.M.

Mr. I. Cohen, President, in the chair.

The minutes of the meeting of the 24th November were read and signed.

Mr. L. H. Parker had written to say that he had been ill and as he was leaving England for a few months requested that all subscriptions paid by bankers' order should be paid before 31st March next. It was agreed that a letter of sympathy be sent to Mr. Parker.

Capt. O. B. Wallis had replied thanking the Hon. Secretary for his letter of sympathy.

The Hereford Group of the West Midlands Archaeological Survey had applied for affiliation with the Club. It was agreed that the application be dealt with by the Central Committee.

The Rev. Preb. S. H. Martin then read two papers on "St. Guthlac—Hereford's Forgotten Saint", and "Ballingham, 1243-1271" which were illustrated with slides. Major Salt in a vote of thanks, thanked Preb. Martin for his scholarly papers. (Printed on pp. 62-75.)

THE WINTER ANNUAL MEETING WAS HELD IN THE WOOLHOPE ROOM ON THURSDAY, 10TH DECEMBER, 1953, AT 2.30 P.M.

Present : President, Mr. I. Cohen, in the chair, and 47 members.

The minutes of the meeting of the 16th April, 1953, were read and signed.

The Hon. Secretary announced that the Rev. J. T. Clapperton had presented *The History of the Company of Blacksmiths*, by A. Adams.

¹ See *Transactions* for 1952, pp. 10-13, for the bosses in the Lady Chapel, Choir and North Transept.

It was agreed that Christmas letters be sent to Major A. E. Capel, Dean R. Waterfield, and Messrs. Pugh, Howse and Parker.

A letter had been received from Mr. Howse stating that school children from Knighton had found flints, Romano-British pottery and a sword, the last dated by the British Museum as 1350 to 1390, near Knucklas Castle.

The following officers were elected for 1954:—

President, Col. T. W. M. Johnson; *Vice-Presidents*, Mr. I. Cohen, the Ven. A. J. Winnington-Ingram, Rev. B. B. Clarke and Major A. E. W. Salt; *Hon. Secretary and Librarian*, Mr. F. C. Morgan; *Hon. Treasurer*, Mr. A. R. Dain; *Hon. Auditor*, Mr. H. S. Widgery; *Hon. Lanternist*, Mr. Basil Butcher; *Editorial Committee*, The Ven. A. J. Winnington-Ingram, Mr. W. H. Howse, Major A. E. W. Salt and the Hon. Secretary; *Central Committee*, Mr. R. S. Gavin Robinson, Preb. S. H. Martin, Dr. A. W. Langford and Mr. W. H. Howse, all to retire in 1957. Capt. O. B. Wallis and the Rev. A. L. Moir to fill casual vacancies and to retire in 1956. *In charge of Covenant Scheme*, Mr. L. H. Parker; *Sectional Editors*, Archaeology—Mr. I. Cohen and Preb. S. H. Martin, Botany—Mr. F. M. Kendrick, Ornithology—Capt. H. A. Gilbert and Dr. C. W. Walker, Mammals—Mr. J. E. M. Mellor, Geology—Rev. B. B. Clarke.

The Hon. Secretary said that proofs of the Centenary Volume were coming in and he hoped to be able to distribute the volumes at the Spring Annual Meeting next.

FIELD MEETINGS, 1954. The suggestions put to the meeting were: (1) Highnam, near Gloucester, and Elkstone; (2) Wayne Herbert, Turnstone and Michaelchurch Escley; (3) The north-east of the county. Of these the first two were chosen.

Mr. Cohen then gave his report on Archaeology, excluding coin finds, which were dealt with by Preb. Martin. This was followed by Dr. Walker's report on Ornithology.

It was announced that the following gentlemen had been elected members of the Club:—Mr. John Ainsworth, Major A. T. Barker, Mr. Ronald Jones.

The following amendment to Rule 5, proposed by the President, with a minor alteration suggested by Dr. Langford, was carried "that the last three lines be altered as follows: Each member may bring a lady as guest. The President shall have the privilege of choosing the place of one field meeting during his term of office; such choice may include Ladies' Day if the Club so desires".

NOTES ON IRON IN THE FOREST OF DEAN

By I. COHEN, M.I.MECH.E.

There is evidence that iron working was carried out in pre-Roman times, the very name "Scowles" being derived from an old British word "crow", meaning caves. The Romans continued the work and Pliny mentions the use of a battering ram with an iron head weighing 150 lb. in the Forest of Dean. Normally the ore was extracted by splitting the rock with iron wedges, also by the use of picks or hammer and chisel. The ore was gathered in baskets with scrapers and shovels, the latter being made of oak about nine inches long and wide, heart shaped, somewhat like the shovels seen nowadays in Cornwall and Devon.

As the Crease limestone comes to the surface near the rim of the Forest "dish" no true mining is involved, the work being "open-cast". The ore pockets followed need the minimum of excavation, thus forming the extremely complicated trenches and pits that characterise the Scowles. Some of the deeper excavations were sloping with notched sides forming steps. It is uncertain if notched beams of oak unearthed at times were actually used by the Romans.

The ore was broken with small hammers and was then washed on plates a foot wide and 3 ft. 6 in. long with a water tank alongside.

During the Roman occupation working became more intense but practically ceased at its end, being revived about the time of the Norman invasion. Domesday quotes blooms and other masses of iron.

The comparative purity of the ore made it practicable to produce iron directly in one operation by the use of charcoal, the woods used being mainly oak, ash, birch, hazel and plum. The process however is somewhat wasteful and it was found advantageous to add a certain amount of old cinder to the charge. In fact it is debatable whether it would be a commercial proposition to make iron from the slag remaining from ancient iron works.

With ore of less purity a higher temperature was used in the furnace, the product being the brittle cast iron. For conversion into wrought or malleable iron a process termed "fining" was employed in a "finery" hearth. The success of this operation depended largely on the skill of the operator and secrets of manipulation were carefully guarded.

As the metal assumed a pasty condition it was turned in various directions to equalise the effects of the air blast in the furnace.

The next process was to take the "blooms" to another hearth, termed the "Chafery" and there hammer out the streaks of scale, weld the layers together and work them into a suitable shape for further operation.

Forest iron had a good reputation. Yarranton says "It is of most gentle, pliable, soft nature, and is best in the known world . . . it is sent up the Severn to the forges and there made into bar iron . . . it is now at Stourbridge and Birmingham and there bent, wrought and manufactured into all small commodities and diffused all England over".

Military expeditions in the Middle ages were equipped with horse shoes, nails, arrow heads, etc., made from Forest iron.¹

GUNN'S MILLS

By I. COHEN, M.I.MECH.E.

The first mention I have come across is that in 1640 Sir John Wynter owned amongst others the furnaces at Gunn's Mill. He was an ardent Royalist and all iron works under his control were destroyed in 1644. It was in ruins in 1680 but was rebuilt soon after, as is confirmed by the presence of a cast iron beam dated 1682 still visible in the furnace breast, and another dated 1683. Still another beam above is so covered that no date is visible.

¹ For other references to local ironworks see *Transactions* 1914, 1918, 1921, 1924, 1937, 1946-8, 1951.

At a later date it was converted into a paper mill and the furnace cut about considerably. Still later the former large water wheel was replaced by a smaller one removed from another mill a few hundred yards up the stream.

Between these mills is a ruin formerly used as a rag store for the paper mill and still further up stream is a building in which I am informed (but on which I have my doubts) cannon were cast for the Dutch War at the end of the 17th century. This is doubtful simply because of distance. Casting was done in front of the furnace.

The stream originates at St. Anthony's Well and at one time fed three mill ponds, of which only the lower one now contains water.¹ Its flow has been considerably depleted by the building of a powerful pumping plant at the waterworks higher up the valley.

St. Anthony's Well was reputed to effect cures of many diseases, it being deemed that nine consecutive visits in the month of May gave the best results. A mangy dog is cured if thrown into the well three times at sunrise. It also has repute as a wishing well.

Other wells are Old Woman's Well, half a mile south of Blackpool Bridge, in Blackpool brook, 50 yards on west side of road beside little wooden turbine house; St. Margaret's Well on north side of road from Clearwell to Llandogo, 1½ miles south-west of Clearwell, 1½ miles east of Llandogo station; St. Brides Well, south of cross roads south of St. Briavel's Castle.

¹ The lower pond has since been drained.

WOOLHOPE NATURALISTS' FIELD CLUB (HEREFORDSHIRE)
HONORARY TREASURER'S CASH ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 1953.

Dr.	RECEIPTS.	£	s.	d.
To	BALANCE, 1st January, 1953:			
	Cash at Bank	251	0	4
	Cash in Hand	7	1	9
		258	2	1
"	Transfer from BENN BEQUEST Account	1	0	6
"	Interest on £832 14s. 0d. 3½ per cent. War Stock	29	2	10
"	Proceeds of Sale of Transactions	56	19	4
"	SUBSCRIPTIONS: 1952	2	0	0
"	1953	335	0	0
"	1954	9	10	0
"	Donation	1	0	0
"	Income Tax recovered under Covenant Scheme	62	7	9
"	Surplus on Field Meetings	30	11	6

AUDITOR'S CERTIFICATE.

I have audited the above Honorary Treasurer's Account, together with the General Reserve Account, the Merrick Bequest Account and Benn Bequest Account, and certify them to be in accordance with the books, and vouchers of the Woolhope Naturalists' Field Club.

HERBERT S. WIDGERY, M.A., F.C.A., *Honorary Auditor.*

£785 14 0

* Includes £28 11s. 3d. of the Marshall Bequest Fund.

Cr.	PAYMENTS.	£	s.	d.
By	Fire Insurance	...	...	...
"	Books Purchased	...	...	...
"	Printing	240	6	4
"	Stationery	12	9	10
"	Postage	28	8	6
"	SUBSCRIPTIONS: British Mycological Society	1	10	0
"	Council for British Archæology	1	0	0
"	Bristol and Gloucester Archæological Society	1	1	0
"	Cambrian Archæological Society	1	5	0
"	Harleian Society	1	11	6
"	Severn Wildfowl Trust	1	1	0
"	Donation—Miss Anthony	7	8	6
"	Salary of Assistant Secretary	10	0	0
"	Telephone Calls—Honorary Secretary	20	0	0
"	Secretary	1	0	0
"	Wreath	1	1	0
"	Caretaker of Public Library—Cleaning	2	7	6
"	Carriage	14	6	6
"	Sundry Expenses	8	0	0
"	Bank Charges	3	3	0
"	BALANCE—31st December, 1953:	7	14	0
"	Cash at Bank*	450	15	9
"	Cash in Hand	1	7	7
		452	3	4
		£785	14	0

A. R. DAIN, *Honorary Treasurer.*

GENERAL RESERVE ACCOUNT
YEAR TO 31ST DECEMBER, 1953.

		1953		PAYMENTS	
		£	s. d.	By	Refund to donor ...
1953				31st Dec.	Balance at Bank (includes Marshall Fund—£28 11s. 3d.) ...
1st Jan.	To Balance at Bank ...	127	17 8		
31st Dec.	" Interest ...	1	19 9		
		£129 17 5			
					£25 0 0
					104 17 5
					£129 17 5

A. R. DAIN,
Honorary Treasurer.

MERRICK BEQUEST ACCOUNT
YEAR TO 31ST DECEMBER, 1953.

		1953		PAYMENTS	
		£	s. d.	By	Balance at Bank ...
1953				31st Dec.	
1st Jan.	To Balance at Bank ...	27	15 8		
31st Dec.	" Interest on 3½ per cent. War Stock ...	3	10 0		
31st Dec.	" Bank Interest ...	10	6		
		£31 16 2			
					£31 16 2

A. R. DAIN,
Honorary Treasurer.

BENN BEQUEST ACCOUNT
YEAR TO 31ST DECEMBER, 1953.

		1953		PAYMENTS	
		£	s. d.	By	Transfer to General Account ...
1953				31st Dec.	
1st Jan.	To Balance at Bank ...	1	0 6		
		£1 0 6			
					£1 0 6

A. R. DAIN,
Honorary Treasurer.

Woolhope Naturalists' Field Club

PAPERS, 1953

CAPTAIN ANDREW YARRANTON AND HEREFORDSHIRE

By COLONEL T. W. M. JOHNSON

Andrew Yarranton was one of those men who appear like a bright meteor which flashes across the sky and then suddenly burns out.

He was born, of yeoman stock, at Astley in Worcestershire in 1616. As a boy he was apprenticed to a linen draper, but later he returned to the family farm. In 1642 he joined the Parliamentary army and rose to the rank of Captain, becoming governor of Hartlebury castle.

In 1648 Sir Henry Lingen of Stoke Edith and Sutton received a special commission from the Prince of Wales to raise the west midland counties for the royalist cause. Yarranton came to hear of this and informed the Parliament.

On 21st July, 1648, he was summoned to appear before the House of Commons, and there he gave details of a plan to seize Dawley castle, Hereford castle, Hartlebury and other places.¹ The House gave Yarranton an advance of £500, which was to be recovered from the estates of Sir Henry Lingen, which with those of other participants was ordered to be sequestered. He was also granted horses by Parliament to help him to keep the peace in the affected counties. We find Worcester and Hartlebury were re-garrisoned by Parliamentary troops; and in Hereford, Major Wroth Rogers, governor of the castle, had to appropriate £200 from his troop's pay to victual and repair the castle against the threatened revolt.

Major Harcourt, one of Lingen's supporters, was arrested but Sir Henry attacked Harley's county troop near Leominster in September, and took eighty prisoners. Two or three days later he was overtaken by Harley and Horton between Radnor and Montgomery, badly wounded and taken prisoner to Redd castle and so the rising ended.

With the death of King Charles I, Yarranton left the army and in 1652 he "entered upon ironworks" at Astley.² From then on he travelled on the continent studying agriculture, methods of trade and industry and set up as a consulting engineer and industrial reformer.

Under the patronage of Lord Windsor, Phillip and Paul Foley, Sir Samuel and Sir Timothy Baldwin, Sir Wm. Blount and others

he was sent to Saxony to investigate the manufacture of tin plate.³ On his return he produced the first tin plate to be made in England, using Forest of Dean iron and Cornish tin. His tin plates were considered to be as good as continental ones but he had to cease manufacture as he found that others held patents. It is known that Chamberlaine and Dud Dudley held a patent in 1673.⁴

While in the Low Countries he had observed the use of clover as a crop, and with Sir Richard Weston he shared the introduction of it into England. It was found suitable for cultivation in the common fields in the year in which those fields normally lay fallow. In Herefordshire he had an agent, Mr. Bellamy of Ross, who could supply clover seed and also pamphlets on its cultivation.⁵ Yarranton claimed that the use of clover in Archenfield doubled the value of the land there. Another of his ventures in the county was to supply London with cider, bottled in Hereford, it having been previously supplied in barrels. His bottled cider was sent by boat down the Wye to Gloucester, over land to Lechlade and thence by river down the Thames. Others followed his scheme and he stated in his book "Five or six glass houses were started in them parts to provide bottles".⁶

He then turned his attention to river navigation and claimed to have made the Avon navigable from Tewkesbury to Stratford-on-Avon.⁷ He also got an Act of Parliament to make the Stour navigable from Stourbridge to Stourport. At one time George Skyppe of Ledbury had one fifth share in this project but it failed through lack of capital, though boats could make the journey as far as Kidderminster.

In 1677 Yarranton published *England's Improvement by Land and Sea* which gave details of the work he had done and plans for future improvements. These included such varied ideas as the registration of ownership of land, schemes for a canal to join the Thames to the Bristol Avon, the defence of harbours, precautions against fire in London and many ways of improving trade and industry. One of these plans was for Hereford, and he began by giving a summary of conditions there.

He noted that the Welsh had lately improved their agriculture, resulting in a surplus of corn in Hereford and consequently a lowering in its price. He noticed the quantity and quality of the "Leominster ore" and the flourishing trade with London in bottled cider; also that the Wye was navigable as far as Hereford. He therefore proposed to introduce into the city the linen weaving industry and to make Hereford a great market for South and Central Wales as Shrewsbury was for North Wales.

To do this, the River Wye must firstly be improved so that boats could pass and re-pass in safety and the Lugg made navigable as far as Hampton Court or two miles farther.⁸ Next, to help credit, a granary should be built in Hereford which could be used

* Wool.

as a grain bank. The first call on this grain was to be given to the workpeople of his new industry. By the granary should be built a bake-house and a brew-house to provide bread and ale. Perhaps there was not enough "Weobley Ale" to supply all his workmen!

He had noticed that the counties of Warwick and Worcester were suitable for growing flax and from these sources he could obtain the raw material for linen tape and ribbon mills, which were to be established in Hereford. He proposed to draw his experts from the Continent and suggested a master-weaver should come from Friburg and bring with him two engines, one for broad and one for narrow tape.

To ensure that the best flax was used, he would bring over from Dort a buyer who could judge the best threads. The threads were to be spun by young girls who would be trained by a German spinning mistress. He had seen such schools in Germany where the mistress sat in a throne like a pulpit and could watch the girls below her. All instruction was given by signs and in complete silence. He envisaged the spinning mistresses also giving elementary education to the girls.

Finally an expert was to come from Haarlem to supervise the whitening of the woven tape, which could be bleached on the banks of the river. He could see no shortage of labour as, when the work started, and it was seen that there were good food and wages available, the Welsh would come flocking in to share the good things.

Yarranton saw Hereford as a manufacturing town sending its linen, corn, cider and wool by water to London, the returning boats bringing London goods for sale into South Wales; he saw it as a town with full employment and where there was opportunity in trade for the younger sons of the gentry of the county.

Perhaps his scheme was too ambitious or the people of Hereford were too conservative or too short of capital. At any rate the county did not find another Rowland Vaughan and so we are now spared the horrors of having to look for our cathedral tower through a forest of mill chimneys.

AUTHORITIES

- Yarranton, A., *England's Improvement*, 1677.
House of Commons Journals. July, 1648.
 Smiles, S., *Lives of the Industrialists*. D.N.B.,
 Webb, F., *History of the Civil War in Herefordshire*, 2 vols.
 Worcester Archaeological Society, *Transactions*, 1929.

NOTES

¹ The Journal of the House of Commons and the D.N.B. both refer to "Doyley Castle Hereford", but it would appear that a comma was omitted before Hereford and that Dawley in Salop was meant.

From the Calendar of State Papers, 18th August, 1648, it appears that the headquarters of the Royalists was at Hampton Court.

² For an account of this ironworks see Worcestershire Archaeological Society, *Transactions*, 1929. Article by T. C. Cantrill and Miss M. Wight.

³ Phillip and Paul Foley were sons of Thomas Foley the great iron-master. Paul Foley bought Stoke Edith from Sir H. Lingen. Sir Timothy Baldwin was later Chancellor of Hereford diocese. Much later members of the same family founded what is now the great tinplate firm of Richard Thomas and Baldwin.

⁴ Dud Dudley first smelted iron by the use of coal instead of charcoal at Pensnett in 1619 but the process was not used commercially until Abraham Darby did so at Ironbridge in 1730.

⁵ "The improvement improved by a second edition of the great improvement of lands by clover" by Andrew Yarranton of Astley in the County of Worcester, 1663.

⁶ Lord Scudamore "was the man that brought the so much famed red streak cyder to perfection", according to his nephew Thomas Baskerville. In 1669 it was known in Oxford as "vin de Scudamore".

⁷ William Sandys had done much to improve the navigation on the Avon between 1635 and 1638.

⁸ In 1661 an Act of Parliament had been passed for the improvement of navigation on the rivers Wye and Lugg. The work to be done by Sir Wm. Sandys, Windsor, and Henry Sandys.

THE REBUILDING OF HEREFORD CATHEDRAL 1786 - 1796

By A. J. WINNINGTON-INGRAM, M.A.

No event has influenced the general structure and present appearance of Hereford Cathedral more than the fall of the western tower on Easter Monday, 1786. It is worth while to consider in detail the events of the next ten years, and they may be divided for convenience under three headings, historical, financial, and architectural.

A. HISTORICAL. Towards the close of the 18th century Hereford had enjoyed a period of some fifty years with no history whatever. Little had been done to the Cathedral since the zeal of Bishop Bisse (1713-1721) had caused to be erected the two stone supports under the north and south arches of the central tower, and the altar piece in the choir. The fabric fund was faithfully administered, but it was never really adequate for the maintenance of so fine a building. Attempts were made in 1763 to strengthen the west front, and again during the years 1778-1785 what is described as "a considerable sum of money was spent in endeavouring to support and preserve the tower". All was in vain, but in spite of ominous cracks and falling masonry services were continued up to the very last moment. The attitude of the general public can be judged by the following extract from the *Hereford Journal* of 20th April, 1786:—

"About nine days ago, a small part of the stonework of the inside roof, under the West Tower of the Cathedral Church in this City, fell; and

continued frequently to do so, till last Monday afternoon, between six and seven o'clock, at which time all that beautiful and magnificent structure fell down, and with it part of the body of the Church. We are happy to find that no person received any hurt, or has any damage been done to any of the buildings near it, except the Music Room, which is considerably injured. . . . The ruins, though awful, afford a pleasing view, especially to behold the statues of Kings and Bishops resting one upon another.

"At our fair yesterday, lean oxen sold well, and cattle at a dear price. Hops sold from 60s. to 80s. per hundred."

In contrast to this rather detached attitude, it would be natural to depict the consternation of the Dean and Chapter over the ruin of their "holy and beautiful house", but it seems probable that they were none of them there, except the Hebdomadary or Canon in Residence.

The Bishop at this time was Lord James Beauclerk, son of the 1st Duke of Grafton, the natural son of Charles II and Nell Gwynne. He proudly empaled the arms of the see of Hereford with the royal arms surmounted by a baton sinister. He certainly resided at the Palace, near his grandmother's supposed birthplace, but he had been bishop for 40 years, and rarely emerged now, except for an occasional confirmation or ordination, and for his annual visit to take the waters at Bath. The Dean was the Reverend and Venerable Nathan Wetherell, D.D. (The use of the address very reverend for deans, and venerable for archdeacons only, is comparatively modern. The Chapter Acts Book knows nothing of it but refers to all the chapter as *Venerabiles Viri*.) Dean Wetherell was an Oxford don. He had been Fellow of University College since 1750, and Master since 1764. He resided in dignity at the Master's Lodge, and although he became Dean of Hereford in 1771 he never came to Hereford at all except in the long vacation. He then took two months duty as hebdomadary.

The remaining ten months were shared between five residentiary canons. In order of seniority they were as follows: James Birt, M.A., preb. de Gorwell and Overbury, vicar of Fownhope; Joseph Guest, M.A., preb. de Putson Major, vicar of Madley; Charles Morgan, M.A., preb. de Episcopi and rector of Whitbourne; Gibbons Bagnall, M.A., preb. de Bartonsham, vicar of Upton Bishop; Hugh Morgan, M.A., preb. de Huntington, rector of Ross. It will be noticed that they all held benefices, though it does not follow that they always resided in them, but they do not appear to have been much in Hereford, except during their two months of residence. It was not easy to get a quorum at a Chapter meeting, even when a canon appeared holding the Dean's proxy.

The fall of the west tower took place on 17th April, 1786, and the first mention of the catastrophe in the Chapter Acts Book is found on 13th June when it is

"ordered that the church carpenter be employed immediately to erect a screen at the west end of the choir in order that the choir service may be renewed: and it is further ordered that an offer be made to the parish of

St. John Baptist of the use of the choir for their services during the pleasure of the Chapter."

The carpenter must have got to work pretty smartly, or else the chapter minute only confirmed what had already been done, for the *Hereford Journal* of 15th June, 1786, contains this announcement:

"It is with pleasure we are authorized to say that the Cathedral will be perfectly prepared for the celebration of the usual services on Sunday next."

On the 26th June, 1786, the Chapter met to discuss future plans. Even the Dean was present, who must have hurried away almost before the end of term. At this meeting it was ordered

"that Mr. Holland (the Chapter Clerk) write to Dr. Harris to request the favor of his opinion whether, if the Dean and Chapter should think it advisable to curtail the nave of the Cathedral Church in consequence of the fall of the tower and west end of the church, it would be necessary to apply for a faculty, and to whom such application must be made."

It should be noted at this point that James Wyatt, the architect, who has been so often blamed for the shortening of the nave, did not appear on the scene until two years later. The idea clearly started in the fertile brains of the Dean and Chapter themselves. On the 8th July they decided to take a further opinion from Dr. Wynne, and these two pundits having presumably told them that a faculty was necessary, they addressed a petition to the Bishop dated 1st September, 1786, in the following terms:—

"To the Right Honourable and Right Reverend Father in God, James by divine permission Lord Bishop of Hereford.

"The Dean and Chapter of the Cathedral Church of Hereford beg leave most dutifully to represent to your Lordship that the West Tower of the said Cathedral has lately fallen to the ground and in the fall broken down some part of the western nave and aisles adjoining thereto.

"That the said Dean and Chapter have within the last seven years expended very considerable sums of money on endeavouring to support and preserve the said Tower and that the fall thereof has been entirely owing to the total decay of the stones and materials of the said Tower as evidently appears from the present remains of it.

"That the resources appointed for the repair of the Fabrick of the said Church are very inadequate to the expense of rebuilding a tower and the injured parts of the adjoining nave and aisles will fully appear by the Fabrick Account, which is ready for your Lordship's inspection whenever you choose to call for it.

"That the said Dean and Chapter did employ several architects of character and ability to give the said Dean and Chapter proposals for rebuilding instead of a tower a west end which is to correspond with the stile of the Church and to be nearly the same as the original west end before the Tower was added to the Church, and that proposal which to them appears most practicable, and consistent with the income of the Fabrick estates together with a plan, elevation and estimate, they humbly submit to your Lordship, and tho' the West Nave and aisles are by this proposal to be shortened yet the appearance of the whole building will be more uniform than when the tower was standing, because by the plan proposed the East and West Nave and aisles, as well as the North and South great cross aisles, will be nearly equidistant from the present great tower which will stand on the centre of the whole building.

"If the proposals meet with your Lordship's approbation the said Dean and Chapter beg leave humbly to petition your Lordship that you would

grant them a Faculty to carry the said plan into execution which will immediately be entered upon and be completed within two years from the date hereof.

"Given under our Common Seal the First day of September, 1786."

The names of the architects of character and ability mentioned in this letter may be inferred from the Chapter accounts to which we shall come later. It is sufficient at this point to say that Wyatt was not one of them. It is sad that no trace remains of the plan and elevation put forward at this time.

The Bishop replied to the letter without delay. He was over eighty, but still spoiling for a fight with the Dean and Chapter.

"Reverend Sirs," (he wrote)

"I have received your Petition dated the first instant, and having fully considered its contents am to inform you that I cannot, as I conceive, with propriety assent to any plan or proposals for rebuilding the west end of the Cathedral which will not cover the same ground on which it originally stood.

I am, Revd. Sirs,

Your humble servant,

James Hereford."

Hereford Palace,
4th Sept. 1786.

"Whereupon", says the Chapter Acts, "the Chapter immediately appealed from the said answer and determination of the Bishop of Hereford to His Grace the Lord Archbishop of Canterbury as supreme Visitor of the said Cathedral Church."

The records of the Archbishop's legal secretary, and Lambeth Palace Library, have been searched in vain for any clue as to what Archbishop Moore said in reply. That he did reply, and gave his general approval to the idea of an appeal for money, is clear from further correspondence. In the meanwhile the Chapter were much more exercised in their mind about the Three Choirs Festival, which was due to be held in Hereford that year. Should it be held, and if so where? The *Hereford Journal* was full of it, but all this, though interesting in itself, does not belong to this paper.

On the 22nd November, 1786, the Chapter appear to have addressed a further letter to the Bishop, suggesting an appeal for subscriptions, for the Bishop writes on 24th January, 1787:—

"Reverend Sirs,

"In answer to an Instrument dated 22nd November last and delivered to me by your Chapter Clerk stating that the resources of the Cathedral Church are very inadequate to the rebuilding of the West end thereof on its original site and requesting my opinion whether in such a case so evidently beyond your powers substantial aid might not be reasonably expected from a subscription, I beg leave to inform you that till I know the annual Revenue of the Church Estate, and whether the whole, or any, and what part thereof or the Timber growing thereon, is by any and what express statutes or law otherwise liable to the repairs of the Fabrick, and if it is how the money arising therefrom has been applied since I have been Bishop of Hereford, it is impossible for me to say whether substantial aid may or may not be expected from a subscription, or whether a subscription in this case ought to be encouraged at all.

I am, Revd. Sirs,

Your humble Servant,

James Hereford.

Jan. 24th 1787."

To this the Chapter replied by submitting the Fabric Accounts for over 100 years from 1684 to 1786, but the old man was far from satisfied. The next day was 30th January, and he might have been expected to spend it on pious exercises in honour of his great-grandfather, King Charles the Martyr. Instead he penned the following nasty reply:—

"Reverend Sirs,

"By comparing your letter of yesterday with mine to you of the 24th instant, you'll find that only one of my Questions, therein contained, is offered to be answered, and that not entirely to my satisfaction. But till I receive a full and explicit answer to all the Questions already put to you and such other as may hereafter arise, it is impossible I can judge of the necessity or propriety of a subscription for rebuilding the West End of the Church.

I am, Revd. Sirs,

Your humble Servant,

Hereford 30 January 1787.

Jas. Hereford."

He returned to the charge on the 19th March as follows:—

"Revd. Sirs,

"As it is my intention to go for Bath tomorrow morning, I think proper to inform you (no notice having yet been taken of my last letter to the Chapter) that on a proper application I shall be willing to grant a faculty for rebuilding the West end of the Church on its former foundation, and according to its Dimensions in every respect, the Tower only excepted, when an application shall be made to me for this purpose. A Plan and Estimate must at the same time be exhibited which if approved of by me must afterwards be kept in the Registry of my Court."

This drew from the Hebdomadary a masterly letter:—

"My Lord,

"I was honoured with your Lordship's letter of the 19th instant, and have no apology to make for not answering it sooner (together with the letter you addressed to Mr. Birt near the end of his residence) but the utter inability I laboured under by the absence of all my Brethren. I embraced the first opportunity which offered viz—that of the General Chapter on Saturday last, to lay the whole before them, and collect their united sentiments, the several Queries being of too important, and too intricate a nature for an Individual to resolve unauthorized by the other Members.

"I shall now with your Lordship's leave (for the sake of perspicuity and order) consider the particulars of each letter, and send you the answers seriatim.

"In answer to the first, the Chapter offer to your Lordship's perusal the Fabric Accounts for a century past, from whence it will appear what is the Annual Revenue of the Church, and the Mode in which it has been applied during that period, in conformity to ancient usage, and the Caroline Statutes. By which Statutes, now in your Lordship's possession, clear and precise directions are given both regards to the *grandiorem materiam ex Sylvis* growing upon the Church Estates. But at present these estates do not furnish any timber.

"To the second letter they reply that to shew their readiness to give your Lordship every satisfaction in their power they have now ordered a new plan and estimate to be prepared agreeably to your Lordship's wishes which were to cover the whole site according to its ancient dimensions in every respect the Tower only excepted.

"In regard to the expense of so great a work our Surveyor has assured us that £1000 will not be adequate to the immediate and necessary repairs of that part of the Cathedral which now stands, and from a comparative view of the other plans and estimates which your Lordship has perused

£5000 will not be sufficient to rebuild the fallen part exclusive of the Tower and its foundations to its former extent. That our own finances being already exhausted of the fine (due in November next) anticipated by removal of rubbish, charge of surveyors, plans, estimates, etc. etc. in consequence of the fall, there seems to be no resource but in a voluntary subscription, already sanctioned by recommendation of his Grace of Canterbury, in which we trust your Lordship will cheerfully cooperate, when once the Plan shall have received your Lordship's approbation, when by a noble exertion of all Parties in the cause of our Holy Religion, a fair prospect shall at length be open'd of wish'd success, then shall we with pleasure attend our Diocesan and receive from his hand that Faculty which he so kindly offers.

"Thus have I endeavoured to discharge the Trust reposed in me, who am with all duty and proper respect, my Lord,

Your Lordship's obedient Servant,

Gibbons Bagnall,

Hebdomadary."

The estimates and plans submitted appear to be those of Messrs. Dyche and Robinson. The plans are lost, but the estimate amounted to £15,300.

No further progress was made that year, and on 24th October Lord James Beauclerk was gathered to his fathers.

Exactly a fortnight later, on 7th November, Dr. Harley kissed hands on his appointment as Bishop of Hereford. He was duly elected by the Dean and Chapter on the 21st November, and on the 15th December he was enthroned by proxy, but on the 8th January, 1788, he died. He had been Archdeacon of Hereford as well as Dean of Windsor, and the *Hereford Journal*, in a burst of indiscretion, relates that he had waited twenty years for this Bishopric which had been promised him by George III, and that his family was involved in the payment of a large sum of money for the "first fruits" of an income which he never received.

On 13th February, 1788, John Butler was elected Bishop of Hereford, and on the 5th March our old friend Charles Morgan, the Prebendary de Episcopi, found himself installed in the Episcopal throne for the second time in three months as proxy for an absent Bishop! However, on the 30th April Bishop Butler arrived in Hereford, and on the 2nd June, James Wyatt presented his first report to the Dean and Chapter on the state and safety of the fabric, with his suggestions for its rebuilding, and an estimate of the cost. Is there any connection between these two facts? John Butler had been Bishop of Oxford since 1777, and must have been acquainted with Dean Wetherell as one of the Heads of Houses. James Wyatt had been making a name in Oxford. He had recently done important work at Christchurch, Merton, and on the Radclyffe Observatory. He was becoming known as the leading architect of his day, and had already been consulted over Salisbury cathedral. It is extremely probable that the new bishop, whose advice must have been sought, had something to do with the employment of Mr. Wyatt. But one mystery remains unsolved. Wyatt's report and estimate speaks of rebuilding "to its original extent that part of the church which was destroyed by the falling of the great western

tower". Yet when Bishop Butler laid the foundation stone on 2nd September, 1788, he must have laid it on the new frontage one bay short of the original length. No faculty seems to have been required, or granted. The Dean and Chapter published Wyatt's report, with its reference to the original length, and made it the subject of their appeal for money, yet right from the beginning they must have made up their minds to the new frontage. On the 17th September, 1788, the *Hereford Journal* records the following:—

"The foundations of the intended west front of the Cathedral are already equal with the surface of the ground. The new part to be added to this venerable structure is to be built on a plan proposed by the celebrated Mr. Wyatt. The design is plain and elegant, and will prove a support and ornament to the present building. The subscription to this undertaking is already highly respectable, and it will no doubt continue in the spirit with which it began."

But here we must leave the historical part of our sketch, and turn to the financial problems involved.

B. FINANCIAL

Among the miscellaneous papers of this period which still survive there is to be found the summary of accounts submitted week by week by the clerk of the works, whose name was John Leech. To this official we probably owe a good deal for the quality of the work done, as architects in those days were rarely on the spot to exercise any supervision. From these accounts we learn that clearance work began immediately after the fall of the tower, as the first entry is dated 17th April, 1786. Philip Evans was the church carpenter, and Evan Davies the tyler. There is an item of £8 8s. 0d. to a Mr. Keck for a plan and £19 2s. 6d. to a Mr. Hardwick for surveying the church and a plan. These are probably the "architects of character and ability" mentioned in the Chapter's first letter to the Bishop. By the end of the year £530 had been spent, though at least £150 of this was on the Music Room. The rest would have been for clearing away the fallen stone, and making the site accessible and safe.

In 1787 little money was spent, except that Richard Dyche, of Stratford, Essex, came to survey the church, and submit an estimate, on the orders of Canon Morgan, then Hebdomadary. He was what we should call today a contractor, and his estimate was submitted through a Mr. Robinson of 11, Well Close Square, (? London), who was an architect and sent a sketch of a new west front, unfortunately no longer existing. Their first estimate was in the neighbourhood of £25,000 but an alternative, allowing for shortening the nave, was £13,000. Some adjustment must have been made, for the final estimate presented to the Chapter was for £15,300. This was not accepted, and the Chapter had to pay Messrs. Dyche and Robinson £172 4s. 3d. So, when in June, 1788, the celebrated Mr. Wyatt was called in, and offered to rebuild the Cathedral for £6,500 is it any wonder that

the Dean and Chapter jumped at the offer? Poor dears, how could they know that Wyatt, whatever his merits as an architect, was quite hopeless as an estimator, and that his plan, economical as it was in his use of materials, would in the end cost them £16,650! Perhaps it was just as well after all that they had, with doubtful honesty, insisted on the new frontage. Work began in earnest in June, 1788, and John Leech's accounts are now rendered every week, and average about £100 a month.

The Chapter now issued their appeal for help, and the *Hereford Journal* every week published a list of subscribers, adding Mr. Wyatt's estimate of £6,500 as a target. By March, 1789, £5,956 had been received, and Mr. Wyatt's estimate had risen to £7,500. By January, 1790, the fund had reached £6,870, and the estimate had disappeared into the sky! Expenses were now running at about £50 a week. In August, 1790, Mr. James Wyatt received £100 on account, in 1791, £25 18s. 6d., and in 1794 a paltry £6 11s. 4d.

He was much blamed for an accident which took place at the end of January, 1790, though it is hard to see how he could have prevented it if he had been there. The *Hereford Journal* records on 3rd February—

"A most melancholy accident happened on Thursday last at the Cathedral in this City. It being judged necessary to take down or repair that part of the roof of the West aisle remaining since the fall of 1786, a strong scaffolding was raised from the ground on the inside, and on Thursday morning, nineteen workmen ascended it for that purpose. Most unfortunately however, at eight o'clock several yards of the roof above them gave way, and immediately falling in bore the scaffold underneath with great force to the ground. By this accident several men were precipitated to the bottom, others leaping into the niches in the walls: and three were left suspended by their hands from timbers above them, of whom two were saved, though from the dangerous situation of one of them near three quarters of an hour elapsed before effectual assistance could be rendered him; but the strength of the third being exhausted from the size of the timber he grasped, another effort became necessary. He therefore endeavoured to throw himself on a rope fastened by each side of the building, but failing in his attempt he also was precipitated to the bottom from a height of 60 feet, and killed on the spot. Of those who fell from the roof and scaffold only one was found dead, but 3 or 4 others were differently wounded, one of whom now at the Infirmary is dreadfully cut and bruised but hopes are entertained that they will all recover."

The Accounts for 20th February, 1790, record—

"Funeral of Pember and Prosser £3 16. 0."

By November, 1790, £5,017 13s. 10d. had already been spent, and in another two and a half years £5,485 6s. 2d. more was gone. The Dean and Chapter had done all they could by appeals. Letters are extant from contractors begging for their money, and rough drafts of letters asking subscribers to pay what they had promised. Nothing could make the Earl of Oxford pay his £100 but the Earl who made the promise died in October, 1790, and his successor was none other than the eldest son of the late Bishop Harley, who was still paying off his father's first fruits, so perhaps it is understandable.

Of the £6,900 subscribed, £300 came from the Bishop of Hereford, £1,000 from the Dean and Chapter personally, £840 from other bishops, £885 from other deans and chapters, £1,295 from the clergy, and £2,590 from the nobility and gentry, mainly within the diocese. All this had been spent by the end of 1791, and the work was not half completed. The redoubtable Dr. Napleton had now joined the chapter, on the death of Charles Morgan in 1789. His portrait is to be seen over the fireplace in the drawing room of the mansion house at St. Katherine's Hospital, Ledbury. He held the living of Lugwardine and therefore was in fairly close touch with Hereford. He was not the man to let the grass grow under his feet, or to allow anyone else to do the same. The Chapter, the college of Vicars-Choral, the hospital at Ledbury, all felt the touch of his reforming zeal, and love of litigation. Such a man would not be popular, but he would get things done. We may perhaps attribute to him the energy which in 1792 procured the passing of a private Act of Parliament, whereby the Dean and Chapter were enabled to raise a mortgage of £4,000 on the capitular estates. It cost them £147 1s. 6d. to get this Act, and they had to pay 4 per cent. on the money raised, but they thought it would see them through. By 9th November, 1793, it was all gone, and expenses were still running at £100 a month. The residentiaries now advanced £1,200 from monies they hoped to receive shortly through the fine paid on renewal of certain leases, but that was gone in a year. For the next two years they borrowed money on bonds for which they were jointly and severally responsible, and though they hoped that in the event of the death or resignation of any of them his successor might take on the obligation they were advised that, without further recourse to Parliament, they could not bind their successors. £3,000 was thus raised on the personal bond of the then Dean and Canons, their heirs and assigns, which was expended during 1795 and 1796. At last on 25th June, 1796, they were able to record in the Chapter Acts Book that the repairs of the church were finished. It says much for their courage and dogged perseverance that towards the end of this period they even sent out another appeal, and got a few hundreds to spend on special work on the cathedral tower.

We must not sit in judgment on the Dean and Chapter of this period. They had inherited a legacy of neglect, but when the crisis came they did their best according to their lights. They may have been misled, or muddle headed, but they saw the work through to the end, and at considerable personal sacrifice they rebuilt the cathedral, and handed it on to another generation.

C. ARCHITECTURAL

It only remains for us to consider what evidence we have of the work actually designed and carried out by James Wyatt in the fateful years 1788-1796. The condition in which he found the

cathedral is clearly pictured in contemporary prints, which show the nave roof broken and sagging, about half the triforium destroyed, and rather more of the clearstorey, the west front gone and the side aisles badly damaged. What we cannot tell from the prints is the actual condition of the parts still remaining. It is easy to say that they ought to have been preserved and rebuilt, but the unfortunate accident referred to earlier shows that there was considerable danger of collapse. Above the stone vaulting the high pitched roof was carried on timbers which may have been hundreds of years old, and possibly in a decayed state. If Wyatt had not had so many enemies in his own day we should not probably be so disposed to distrust him. Let us at any rate listen to his report on the structure, which, signed by his own hand, remains among the Chapter Archives.

"Having with the greatest care and attention surveyed the Cathedral Church at Hereford in order to form an opinion as well of the present state and safety of the Fabric as of the steps necessary to be taken to rebuild to the original extent that part of the Church which was destroyed by the falling of the great Western Tower and to reinstate the whole in the most perfect manner that the nature of the building will admit I recommend that the following matters should be immediately attended to

"The Roof of the Spire from its original bad construction and great age is in a state of great unsafety and must be taken down. The Roofs of the Body of the Church are exactly in the same predicament and threaten much danger. Parts of the great Western Nave and side Aisles which are now standing tho much injured by the falling of the Tower must be taken down. The water which now falls from the Roofs of the Building should be conveyed by Pipes into a Drain and by that into a common Sewer whereas it now returns again upon the foundations of the Church owing to the ground having been considerably raised by its being the common and only burying place for the whole City of Hereford (much to small for that purpose even if it were of no inconvenience to the Fabric) and for the further preservation of so noble a pile of Building ought to be removed.

"I have considered the expence of takeing down that part of the Western end which has been injured by the falling of the Tower of rebuilding the whole to the original extent and of adding flying buttresses to support the Walls of the great Western Nave (which are much out of upright and which would be attended with very heavy expence to rebuild and would perhaps endanger the great Tower by being taken down as the main buttresses on the Western side of the great Tower stand upon the Walls of the great Western Nave) and also the expense of takeing down the Spire and the present Roofs and new Roofing the whole of the Body of the Church and side Aisles and of rectifying the other parts which I have mentioned as being so defective and find that the whole may be done for The sum of Six Thousand Five Hundred Pounds.

"If the Spire should be erected according to the drawing it will add near a Thousand pounds more to the above estimate.

JAMES WYATT.

June 2nd 1788."

From this we can see that he considered it necessary to renew all the roofs throughout the church, and to remove the spire, in addition to the work of rebuilding the nave and west front. The paragraph referring to this rebuilding is a masterpiece of obscurity. He does not make it clear whether he has "considered the expense

of taking down the Nave ", and then rejected the scheme, or whether in fact he proposes to rebuild it in spite of the danger to the tower. Probably he is to be understood as intending at first to retain some portion of the nave walls abutting on the tower. In fact he did retain some, mainly at triforium level, though he refaced it on the inside. The flying buttresses were never added, as all the clearstorey seems to be new stone, and the portion left supporting the main buttresses on the western side of the great tower is very small indeed. His other main recommendations were thoroughly sound, viz. to lower the level of the ground all round the cathedral, and to provide proper drainage. It must be remembered that, at that time, the level of the close had been so raised by continual burying that there were steps down at every entrance (cf. Turner's water colour drawing in the Dean's vestry), while the windows of the crypt were entirely obscured. Wyatt incurred great unpopularity by insisting on the cessation of burial, and the levelling involved a great disturbance of graves and bodies, but we may be very thankful today for the disagreeable task then undertaken. The connecting of the rain water drain pipes with a "common sewer" probably does not mean what we imagine, as there would have been no general sewage system in the city in those days. Certainly on the north side of the cathedral the water was carried into a large sump in the ground and it is only recently that the drainage on this side was connected with the general city drainage system. There is another paper in the archives, which appears to be in Wyatt's writing, and is a kind of further estimate or specification. It runs as follows :—

"Particulars of an Estimate for Rebuilding the West End and sundry other Repairs of the Cathedral Church of Hereford.

"Viz. To take down part of the side Walls that are decayed, and take down the present Groins as far as the Organ and rebuild part of the side Walls which are now standing as well as those which are already down. To build up the great West End according to the drawing and make new Groins of Bracketing, Lath and Plaister. To take off the present Roof and put on a new one, To repair the side Walls of the West Nave that are not taken down, To make good the Groins to the side Aisles with Bracketing Lath and Plaister and put a new Roof on Do. covered with Slates, To new Pave the floor of the great Nave and side Aisles, To take down the present Spire and Stairs at the angles and raise the Main Towers about six or seven feet, To take off the present Roof of the Choir, Trancept and side Aisles, To take down the decayed Parapet Walls and the Gables at the East, North and South ends and rebuild them to suit the form of the intended new Roof, To make a Drain all round the Cathedral to convey the Water from the different Roofs to the common Sewer.

"To execute the above Works in the best manner will amount to the sum of Six Thousand and Seventy Pounds."

This does not advance our knowledge very much, although it gives particulars of the materials for the new groining, "Bracketing, Lath and Plaister" sounds to us very flimsy, but of its kind it was solid and substantial work and has survived to this day. It may be noted that we have here the first mention of Wyatt's

characteristic battlemented parapets. He proposes, after taking down the spire, to raise the tower by six or seven feet. This was to be done by means of a parapet such as we have today, and the gables on the west, east, and north ends were designed to match it. The south end is also mentioned but there is some doubt whether the south transept ever did receive this particular treatment. Thomas Garbett, writing in 1827 (while referring to the battlements on the north transept) described the work done on the south transept as follows :

"The south end of the great transept, which, like the choir, had a high pediment and cross in the centre, and pinnacles on the sides, has shared even a worse fate, if possible. Not only have the pediment and cross been swept away, and the upper window superseded by a plain circle enclosing a trefoil ; but the whole part, having been shattered by time, has undergone the modern operation of chipping ; and thus the dripstones and side mouldings of the windows and buttresses have been pared off with as little ceremony as the most offensive rubbish ; and as if nothing of ornament might be suffered to remain, the pinnacles at the angles have been taken down and the whole surface levelled and closed in like the side walls."

This description seems to apply exactly to the south transept as we see it today, and no print exists showing any sign of battlements on this gable.

No further documentary evidence can be found of Wyatt's intentions and only the contemporary prints show what the cathedral looked like when he had finished with it. We must always remember that Wyatt was a product of his own period. The Middle Ages soared to heaven ; the eighteenth century had its feet well on the ground. The one may be called the age of faith, the other perhaps the age of elegance. So Wyatt's cathedral lost its spire, and its high pitched roof, but the lowering of the ground regained a certain graceful sense of proportion. Wyatt's design for the triforium and clearstorey, and his west front, will no doubt always invite criticism. But he was by nature and training a classical architect. His first success was the design for the rebuilt Pantheon in London, with its columns of scagliola marble, and magnificently decorated cupola. We might easily have found ourselves with a west front with a classical portico like the Shirehall ! No one had designed seriously in the Gothic style for two hundred years or more. The revival of Gothic in the 18th century was romantic, and led to Walpole's experiments at Strawberry Hill, of which our nearest example is in Lord Bateman's rebuilding of Shobdon church. Wyatt had already experimented in Gothic, and had produced an amazing building at Fonthill for the eccentric Mr. Beckford. But when he came to design the new work at Hereford he did attempt to produce something serious, which would not be out of keeping with the surroundings. That he had some measure of success will be agreed by any impartial critic, who studies the present exterior view of the Cathedral from the north-west, or considers the graceful lines of the plaster vaulting in the nave. The object of this paper

is to secure that his memory shall no longer be smothered in prejudice and abuse, but that in the history of these ten years we shall recognise that we owe something to the man who left our cathedral very much as we see it today.

THE DIARY OF GEORGE SKYPPE OF LEDBURY

By T. W. M. JOHNSON

The description of a diary may be divided into three parts; the author and what may be deduced about his character and habits; the form which the diary takes and the nature of its entries; and the background of events which caused those entries. Firstly then, what can be told about the diarist?

The Skyppe family came to Herefordshire from Norfolk, following the fortunes of John Skyppe who became bishop of Hereford in 1539. Through his influence Richard Willison, a nephew of Robert Skyppe of Tungstead, obtained the lease of the Upper Hall in Ledbury in 1542. This property was church land in and around the town, and had been given by the Bishops to the Dean and Chapter: with it went the tithes of grain and hops, and also the house. The lease was renewed from time to time, and the property descended to Willison's heir, Edmund Skyppe, and to his heirs and so to John Skyppe the father of the diarist. The family had bought up other lands near the town and John Skyppe had purchased the demesne of the manor of Ledbury from the City of London, to whom it had been given by Queen Elizabeth, and he enjoyed his share of the manorial rights. He had also purchased a share in the manor of Ledbury Foreign.

John Skyppe was thus a man of property, a Justice of the Peace, a captain of the militia since the Restoration, a deputy lieutenant of the county; he had served as sheriff, and, as a strong Royalist, had helped to defend Goodrich Castle under Sir Henry Ling. George Skyppe, his eldest surviving son was born in 1633 and graduated at Balliol College. From there he went to Gray's Inn and was called to the bar in 1666. He married firstly Elizabeth Rigby and secondly, Elizabeth Norris in 1669. After his first marriage he settled down at the Upper Hall, his father having moved to Wall Hills, and there he acted as man of business to the family estates.

After this brief account of his background, we can consider the assessment of his character and habits from the entries in his diary which cover the period from his thirty-fifth year until his death in 1690 at the age of fifty seven.

That he was a careful man can be assumed from the methodical way in which he listed the many documents which he took over

from his father. There are notes of his many financial transactions with details of interest paid and received and settlements made. The only reference to gambling is when in 1668 he "made a resolve never to playe at hazard hereafter for more than ten shillings to be lost at one sitting". At the same time he was prepared to wager a guinea, or a fowling piece on the chance of his wife presenting him with a son and heir within two years.

Like most men in those days he took a keen interest in hawking, for he paid his falconer £10 per annum, a very considerable sum, compared with a coachman at £4. There are entries of the purchase of hawks, £4 for a bockerill,¹ £5 for a lammer,² £7 for a goshawk and £4 for a tassel gentle.³ In 1674 he records "The goshawke I gave to my bro: Dick lately did kill and eat part of my sparrowhawke: and I sent Jack Chandler to cozen Parsons who gave me another sparrowhawke".

For hawking and hacking he kept three horses as well as "two great horses" and a coach gelding. These horses cost him twenty shillings for half a year's shoeing in Ledbury though he demanded a rebate for any period in which he was absent in London.

Whether his interest in fishing was for sport or for food is not known but he made up the pool in Stony hill, fenced it about and stocked it with "sixty two carp from Eastnor, mostly about a foot long" and on another occasion he put in "110 store carp and 100 store tench and 20 perch".

A contract is recorded for the burning of bricks to build a wall round the bowling green, which shows his interest in that game. There is still a "Bowling Green Cottage" in Ledbury. His share in the family estate duties seems mainly to have been that of an estate agent, leaving the farming to his father. In 1675 he records

"my father had off six ridges of ground in partridge pitt field wch are computed about an acre and a quarter of ground sixteen thraves and ten sheaves of muncorne".

This was in one of the common fields of Ledbury, a thrave being 24 sheaves and "muncorn" being a mixture of wheat and rye. That he valued good husbandry can be told from a lease he made for his brother of a meadow in which the tenant had to carry 80 loads of dung on to the land during the first five years of the lease.

In another lease he permitted the tenant to create a tenement, Skyppe providing the timber, free for the life of the tenant provided

"they demeaning themselves civilly and justly to us and keeping the tenement in good and sufficient repair and soe leaving it to us at their deaths".

At home, he kept the house warm with "greate cole" which he had delivered at his yard at Upton-on-Severn and for which he paid seven shillings and sixpence a ton carriage from Upton to

¹ A long-winged hawk. ² A young female Peregrine. ³ A Merlin.

Ledbury. For many of the household affairs he made contracts:—ten shillings a year for the carriage of mails to and from Gloucester, twenty four shillings a year to the barber to trim his hair, twelve pence a quarter

"to keep my wyfes watch in order", "half a crowne a year to keep my clock with lines and cleansing, etc.". "My wyfe bought a new jack of Robert Bibbs for w^{ch} shee gave our old jack and 20 shill. to boot, and Robt Bibbs agreed to keep it clean and in order for the first 7 years for nothing and after that to have 12 pence per an. to keep it soe during his and my wyfe's life".

In the garden he planted fruit trees, plums, peaches, apricots and nectarines and also two walnut trees. He liked to sit in the garden and mentions a wild blackbird singing in February, and in the same month he gathered a red rose full blown. He also heard a chaffinch in January.

In the affairs of the church he took his share, for he moved the pulpit at his own expense. When in London he went to see the bishops of Canterbury and St. Asaphs consecrated and heard Dr. Tillotson preach about the day of judgement. There was, however, in Ledbury a source of friction between the Skypes and the clergy. The apportionment of tithes between the Skypes and the vicar was a constant source of appeals to the Bishop and of lawsuits. The tension became more acute when Mr. Pritchard, the portionary of the Over Hall, gave himself the living. The existing lease of the Over Hall had expired with the death of the last vicar, and the new vicar tried to eject the Skypes and live in the house himself. The case went to court and while it was still *sub-judice* the following entry appears.

"26 Jul 1684. I paid Moses Greenways charge" (he was George Skyppe's under-gardener) "in the chancery court at Mr. Pritchard's, the vicar, suit viz. for saying 'amen' aloud in the church at the first part of the 10th commandment (viz. thou shalt not covet thy neighbours house) for which the vicar held him there at the time when he was endeavouring to get the Upper Hall from us, and I paid five shillings for the expenses of the suit".

The outcome of the case was a renewal of the lease, and permission for the Vicar to have the use of two rooms in the Upper Hall. A further source of friction was due to George buying a pew in the church without getting the Vicar's consent. The Vicar then claimed the pew for himself and finally the Bishop gave half to the Vicar and the other two kneeling to the Skypes.

Skyppe does not appear to have practised as a lawyer, though he acted as man of business to his friend Sir Clement Clarke and shared in some of Sir Clement's enterprises.

Skyppe was careful about his health, and weighed himself regularly. He suffered from rheumatism (an early use of the word) and the stone. He notes his doctor's, surgeon's and apothecary's fees. On one occasion he stayed with his doctor in Gloucester for treatment and later sent the doctor's lady a pair of silk stockings as a valentine; though on 14th April and not in February.

Secondly, the diary is a foolscap volume covering the period from October 1668 to 1690, and was used afterwards by the widow to keep records of receipts of tithes and rents.

Written in a clear and bold handwriting it consists mainly in records of financial dealings, but interspersed among these are notes of births, deaths and marriages in the family, unusual events such as earthquakes and other items of interest. The back of the volume contains lists of his law books and library, lists of fruit trees planted in the garden,¹ a terrier of the Upper Hall property and other family lands, and details of the tithes and rents due on each piece. There is also a long list of the documents, leases and other papers which he took over on the death of his father.

As examples of the type of entries in the diary, a few are quoted, grouped according to the subject matter.

FINANCIAL DEALS

Octob. 13th. I borrowed of Mr. Will: Berrow fifty pounds per note of my hand to be rep^d on demande. (cancelled)
I recd fifty pounds from Mr. Webb of Gloucester by a Bill from Bro: Norris, of w^{ch} I sent Coz: Geo: Skyppe 30^{lb} in p^t of fifty I owed him and I gave Foster 16^{lb} of it for w^{ch} he is to account to me and the remaining 4^{lb} I brought with me to London.

I gave Bro: Norris my Bond of 1000^{lb} for payment of 515^{lb} in 6 months and I alsoe gave him a warrant of attorney (directed to Mr. Charles Perrott, Mr. Rob: Waite and Mr. Tho: Heath attorneys of the common pleas) to confesse a judgement for the same 1000^{lb} and I had Bro: Norris his defeasance upon it accordingly and I alsoe sealed a release of error upon the judgement dated the 11th instant, the rest were all dated 10th instant; the witnesses to all were Charles Perrott, Edward Rolph, a scrivener and his man Samuell Chorley. I recd fifty pounds at Gloucester of this 500^{lb} now borrowed of Bro: Norris and this daye (viz. 11th instant) I recd more of him 100^{lb} in money and a Bill for the remaining 350^{lb} w^{ch} he is to paye me upon demands (all w^{ch} was since paid)

I entered into 4 Recognizances viz. one to Sr Tho: Hanbury of 200^{lb} for payment of 100^{lb}, another to my Bro: Rich: Skyppe of 1000^{lb} for payment of 500^{lb}, another to my sister Ann Skyppe of 800^{lb} for payment of 400^{lb}, another to my cozen Con: Skinner of 1000^{lb} for payment of 500^{lb}. These were all acknowledged upon thursday the 27th of May 1680 before Sr Miles Crooke

lb s d
and then enrolled; the charge of the whole cost me in all 2:3:6: I owe these several persons the aforesaid summs of money by Bond and these recognizances are given to corroborate their securities.

I bor 500^{lb} of Mr. Simpson by a statute of a 1000^{lb} defeasone to pay 500^{lb} and inter; for a year and I gave cozen Langley 20^{lb} for procuring the money and pd other charges 1:7:6.

Part of the settlement of a debt reads:—

He had of me 53 old 20 shill pieces of gold at 23 shill per piece

lb s
5 22 shill pieces at 1:5 ye piece

lb s d
and 1 ginnye at 1:1:8 ye piece
and 6 halfe ginneys and 2 halfe 22 shill: pieces

¹ It is hoped that these lists will be printed later.

I lent James Savaker forty shill: more upon his giving me a warrant in ejectment of a release of error and a discharge for the tenants (of Brobery Lands) for paying any rent to him: and he likewise now sealed a release of his interest in the sd lands to me and my heirs.

GENERAL MATTERS

Sep 21th 1683 The Heralds Office was kept in Ledbury in their visitation of this county and they then entered the pedigree and matches and issue of our family, for wch he demanded 37 shill: fee of my Father but was paid nothing

Sep 6th 1677 Coz. Tho: Blount of Oreleton was with us at Ledbury to search into the antiquities and remarks of our church and towne in order to his publishing a Booke of Herefordshire.¹

Octob: 24th 1676 I brought Ned Barnett home againe to his Mistress (Mrs. Reighnolds the cooke) and shee desired me to make Ned believe I was engaged to paye her 20^{lb} in case he served her not out his whole time and justly: of this shee bid her servants (before Ned) to take notice: but shee assured me privately shee would take noe advantage of this my promise but only shee would have Ned think I was so obliged in earnest to make him staye.

August 29th 1683 Wednesday betwixt 9 and 10 of the clocke in the forenoon we had a great earthquake being only one shock and noe more. I was then in the summer house at the Upper Hall and the room moved violently, there being noe wind then.

Memorand. on Saturday the 6th of Octob. following about ii at night we had another great earthquake wch was observed for many miles together in these parts.

April 30th 1685 I gave Mr. Church the coroner forty shillings for what I promised him for the year 1684 and agreed now with him to give him 20^s for this year 1685 and soe for every year (during my troubles)² in case there be any parl. in the sd yeare, or forty shillings if noe parl. yearly and to paye him at Mych: every yeare in consideration of wch he solemnly swore to execute noe writt or process against me, but if any be pressed upon him, to give me notice to withdrawe by sending a messenger on purpose to me.

An extract from the rent and tythe accounts kept by George Skyppe's widow.

Thomas Greenway 7 October 1697

23 October 1697 before 1-4 to now by work 0-2-0	}	0-2-0
towards Lamas last		
30 of October 1697 pd for the tilage to Mych last	}	1-1-0
4 Decem 1697 recd by worke toward Lamas last		
20 Desem 1697 recd 3 quarters for his boy 0-12-0	}	0-3-6
and by a hog 1-3-0 and five days work 0-2-11 which is all except 0-1-9 Lamas last rent Cand		
15 January 1697 recd the one and 9 pence	}	0-1-9
12 recd toward Cand last rent a cof 0-8-0 mony 0-2-0		
18 April 1698 by work 0-6-0 in mony 0-10-0	}	0-10-0
	}	0-16-0

11th July 1702

1 May 1698 in mony 0-17-6 by making 10 doz. pr 1-5-0
Received by hauling 16 doz of drays £1-4-0 rest due at Mych last for tythe 9 sh. and hops 2 sh and if he pays it quickly I forgive him 2 sh.

Thirdly, the background of events which caused the entries in the diary are mainly the doings of Sir Clement Clerke; but

¹ The Blount MSS. were sold by auction in 1954, and were later bought with other genealogical and historical papers by Hereford County Library.

² Ejectment from the Upper hall.

before coming to these I would mention the large number of loans given and taken. Before the days of banking as we know it now, cash received for rent and tithes was used to finance deals of friends and neighbours, being lent on short term loans, thus avoiding the keeping of large sums in the house, which were liable to theft. Similarly purchases of land were financed by loans from neighbours. Later, relatives of the Skyppe family married into the rising banking families of Biddulph and Martin.

The restoration of Charles II found many of the land-owning gentry short of cash as the result of loans to the Royalist cause and sequestrations during the Civil Wars. Consequently the gentry sought ways of rebuilding their fortunes by turning to industry. All over the country schemes for land improvement, iron works, river and harbour development were started and in many cases these were financed by the county gentlemen. Sir Clement Clerke was a great supporter of these schemes, and having seen fortunes made by the Foleys and Hanburys as ironmasters, and the shareholders in the South Sea Company in overseas trade, he interested himself in the proposals of Capt. Yarranton, about whom I have talked on another occasion.¹ Skyppe helped Sir Clement to raise money on his estates to invest in the scheme for making the river Stour navigable from Stourbridge, through Kidderminster to Stourport. In this he was joined by the Baldwyns, Sir John Poyntz, Lord Windsor and others. Skyppe seems to have got out of his share in the project before it failed. In 1674 Sir Clement started an iron furnace at Winchcombe, in which Skyppe had a share.

In 1676 Sir Clement, Skyppe, Mr. Coster and others started their "adventure of the oare".

Sir Clement had discovered that while mining for tin ore in Cornwall the miners had uncovered quantities of copper ore, which was either not recognised as such, or its value was not understood. The Coster family were copper smelters and brass founders in Bristol. The idea was to buy, in great secrecy, this ore in Cornwall and ship it to Bristol; Sir Clement assured Skyppe "That he did not fear that it would be worth to my part £100,000".

The Costers' foundry was at Baptist Mills on the river Frome at Bristol, much of the brass being used to make wire and wire cards; Skyppe purchased a house in "Channel Rowe" Bristol for use as a store house for the ore. Later they joined together in financing tin smelting.

The result of all these projects was that Sir Clement had to sell up his property at Laund Abbey and his wife's property at Rudge and used Nottgrove as a security for £7,000 which he had from Skyppe, which loan left Skyppe chronically short of ready cash for the rest of his life.

¹ See pp. 39-42.

1 A monument with effigies of Richard and Ann Elton, by John Giddon the Hereford sculptor, is in Madley church. This needs recoloring.
much of the original paint survives
2 Anne Denison was buried in Hereford cathedral where there is a good monument with effigies of both Alexander and Anne, made while the former was still living. He is buried with his second wife at Hillesden, Bucks.

(Memorand we made this year between 3 and 4 pound in mony of the currans sold to Worcester and Hereff. etc. and the currans were very ripe when we gathered them for grinding after.)

[March 21st 1687.] I bottled up the grape white wine and had about 4 dozen bottles of it: when it was first made I put 6 pounds of sugar to one of the vessells (w^{ch} held about 4 gallons) and to the rest noe sugar but 2 pounds of raysons of the sun well washed and dried and slit to every gallon and when it well inbided the virtue of the plums we then racked it off into other vessells.

Ditto 22d. I bottled up the red grape wine and had 20 bottles of it, into each bottle we putt 5 or 6 raysons of the sun. This wine had no sugar in it at all.

July 21st 1685. I made a vessell of Morella cherry wine.

For all this work, hoops for the barrels were made by contract from the ash trees cut down in the coppices; the wine press was renovated and several new parts were made.

The last work done, just before Skyppe's death was the construction of a pump to water the garden, for which oak and elm pipes were used to deliver the water.

From this mass of detail can be gathered an idea of the life of a typical gentleman of Stuart times, who was mainly dependent on the land for his living; but supplemented his income, or hoped to do so, by dabbling in business.

ST. GUTHLAC, HEREFORD'S FORGOTTEN SAINT

By S. H. MARTIN, M.A.

INTRODUCTION

For nearly four hundred years there flourished in Hereford, on the site of the present bus station, a monastery, commonly called St. Guthlac's Priory. It was a wealthy community, holding property which extended over a great part of the county, but when it was dissolved by Henry VIII in 1539 its lands were sold and its buildings disappeared. Only the name survives in St. Guthlac Street near the County Hospital. The purpose of this paper is to recall to our minds the story of this forgotten saint and to trace, where possible, the history of his connection with Hereford. An account of his life was written soon after his death, not later than A.D. 749, by the monk Felix, his contemporary, and the best editions are a Latin text edited by W. de Gray Birch, *Memorials of St. Guthlac* (Wisbech, 1881), a copy of which is in the City Library, and an Anglo-Saxon version, edited with an English translation and notes by C. W. Goodwin in 1848. Felix says that he wrote the book at the request of Alfwold, king of the East Anglians, who wished him to write about "that most quiet haven, the life of St. Guthlac".

LIFE OF ST. GUTHLAC

He was born A.D. 672, the son of Penwold, a Mercian nobleman, and Tette his wife, and had a sister named Pege, who also became

a recluse. In his childhood "he was not given to levity nor did he study the various cries of birds, as childish age is often wont". In his youth he had to bear arms like other young men and took part in the fighting that was continually going on in those troubled times. "For nine years he was employed in hostile raids; he collected a troop, wreaked his grudge upon his enemies and ravaged their towns." Then, when he was about the age of twenty-five, the call came. One night as he lay down tired after the day's work he was "inspired with divine awe and his heart was filled with spiritual love. He arose in the morning and signed himself with the mark of Christ's rood". Leaving his company he went to the monastery at Repton, where he was admitted, receiving the tonsure from the abbess Elfritha. Here he stayed for two years, during which time he learnt by heart "the psalms, canticles, hymns and prayers of the ecclesiastical order". One wonders how much Latin he knew before he went there, but it is known that others like him had to get used to the Latin readings and the Latin prayers—so much so that when the neophyte went home to his family they could not understand one another, his speech having become quite different from theirs. At the end of the two years Guthlac decided, like his sister, to become a recluse, and began to look for a suitable place where he could retire from the world. Felix writes, "There is a fen of immense size which begins near Grantchester from the river Granta. There are immense marshes, now a black pool of water, now a foul-running stream, and also many islands, reeds and hillocks and thickets, and with manifold windings wide and long it continues up to the North Sea". People told him many things about the vastness of the wilderness. A man named Tatwine knew of an island especially obscure, "which often many men had attempted to inhabit, but no man could do so on account of manifold horrors and fears and the loneliness of the wide wilderness". Guthlac "was enamoured of the obscurity of the place" and went to live there on St. Bartholomew's Day, 24th August, 699. "He took the shield of the Holy Spirit, faith, clothed himself with the armour of heavenly hope, put on his head the helmet of chaste thoughts, and with the arrows of holy psalmody continually shot and fought against the accursed spirits". He built his home on a mound in the island, clothed himself with skins and lived on barley bread and water.

The account of the temptations which befell him can only have come from himself, and it is hard for us to understand. It looks as if it was a fight for reason and sanity. The devils who were, in the saint's view, not in the least subjective, first tempted him to prolong his fast to more than two or three days. He resisted this and decided to eat when the time for eating came. He speaks of three days of black darkness when he was "wounded with despair" and of the words with which he repelled the darkness; "*In tribulatione mea invocavi Te, Domine,*" (In my tribulation I called

upon Thee, O Lord). He was troubled at night by horrible sounds, hogs grunting, wolves howling, ravens croaking and "the various whistling of birds", "that they might by their fantastic appearance divert the mind of the holy man". One is here reminded of the strange forms and figures on the outside of the church of Kilpeck, though these were made at a much later period.

Things seem to have come to a climax when "the hosts with distorted faces and fierce eyes" beat him with iron whips, and showed him the mouth of Hell "where for his sins he deserved to go". The saint's reply was, "Who gave you power over me? I await my Lord's will." In the end they threw him into the fen, but at this point St. Bartholomew came to his rescue and ordered them to bring him back. Because of these bitter experiences St. Guthlac took as his emblem the three whips with which he was beaten by the Devil. This story appears differently in the pictures of the 11th century where the saint used the whip to drive off the demons.¹

There is added to this account of St. Guthlac's temptations a most interesting and perplexing detail, that the devils spoke to him in the British language which he understood, "for he had erstwhile been in exile among them, for in the days of Cenred king of Mercia the British nation had with many battles annoyed the English". These words are from the Anglo-Saxon version. The Latin text, from which the Anglo-Saxon version is derived, reads, "for he in time past lived in exile among them, so that he was able to understand their high-pitched talk (*stridentibus vocibus*)". This probably refers to something that had happened before his conversion and not recently, for the Latin for "in time past" is "*aliorum temporum praecleritis voluminibus*". The reference to Cenred does not seem to fit, for he became king in 704. It is apparently not known where the British were at the end of the seventh century. If they were still holding their ground in some parts of the Midlands, St. Guthlac may have learnt the language there. If they were all across the border, then it is possible that Guthlac was there too, either as a prisoner or stationed at some outpost where he was in close contact with them. So here, as often in mediaeval history, we have a language problem and must conclude that Guthlac could speak in three languages, Anglo-Saxon, Welsh and Latin.

One might almost say that at this point in his life the devil left the saint. The change in him is very striking, almost a miracle from the medical point of view. No longer haunted by fears, or terrified by visions, he lived happily and usefully on his island. "The second year after I dwelt in the wilderness at even and at day-break God himself sent his angel for my comfort". He appeared

¹ The Roll of St. Guthlac, now in the Harley Collection of MSS. in the British Museum, is a most interesting collection of pictures probably drawn by a monk of Crowland in the twelfth century. Reproductions of these with notes are to be found in Birch's *Memorials of St. Guthlac*.

before the world as a kind, open-hearted, friendly man who, though still practising the utmost self-denial, made himself accessible to all sorts of people, and was useful to them in many ways. He now had a definite spiritual gift, a kind of second sight, exercised not in dreams or visions of the future, but in a clear understanding of the present. Here are some of the stories told about him.

BECCER THE CLERK. One day Beccel the clerk came to shave him, for he washed himself every twenty days, and was tempted to kill him. Guthlac, who could see and look through the man within as well as without, taxed him with his evil purpose, saying, "This temptation was begotten in the unrest of thy evil intent". Beccel confessed and became his faithful servant.

THE GLOVES OF WILFRID. There was a distinguished man of noble kindred in Mercia whose name was Æthelbald. Wishing to converse with the holy man, he prevailed upon Wilfrid, a friend of Guthlac, to bring him to the man of God; so they went in a boat and journeyed to the island. When they had come to the island, behold, Wilfrid had left his gloves in the boat. While they conversed, he, the blessed man Guthlac, asked whether they had left anything behind them in the boat (for God made him to know all secret things). Then answered Wilfrid that he had left his two gloves in the boat. Not long after, as soon as they had gone out of the house, they saw a raven with his black beak tearing a glove on the roof of the house. Then the holy man rebuked with his word the raven for his mischief. The bird obeyed and flew westward over the wilderness. Whereupon Wilfrid reached the glove from the roof of the house with a stick. Not long afterwards there came three men to the landing stage and there sounded the signal. Then went the holy man Guthlac out to them with cheerful countenance and good humour and there spoke with them. When they wished to depart they brought forth a glove and said that it had fallen from a raven's mouth. Guthlac received it smiling and gave them his blessing, and afterwards gave the glove to him who had before owned it.

THE LOST PAPER. It happened that his friend Wilfrid came to stay with the holy man. When he had remained some days it fell out that he wrote some writing on a sheet of paper, and when he had written it he went out. Then came a raven in; as soon as he saw the paper he took it and went with it to the fen. When the guest came back again he saw the raven carrying the paper; thereat he was very vexed. It happened at that time that the holy man Guthlac came out of his church and then saw his brother grieving. "Be not grieved, brother, but when the raven flies through the fens, row thou after him; so shalt thou recover the writing". Having rowed through the fenland the guest came to a mere which was very near the island. There was in the midst of the mere a bed of reeds and there hung the paper on the reeds, even as though man's hand

had brought it there. He forthwith joyfully seized the paper and brought it wondering to the man of God.

THE BOTTLES OF ALE. There came also to him two brothers on a time from a certain monastery. Whilst they journeyed to him they had with them two bottles filled with ale; then it was agreed between them that they should hide them under a turf, that when they went home they should have them with them. When they were come to the saint he strengthened them with his counsel and edified their hearts with his admonitions. When they had spoken on many subjects amongst them, the blessed man Guthlac with merry countenance and laughing words said to them, "Wherefore hid ye the bottles under a turf and why brought ye them not with you?" They were greatly amazed at these words of the holy man and bowed to him and begged his blessing. He blessed them and they returned home.

VISIT OF THE BISHOP. As his fame spread, Headda, bishop of Winchester, came to visit him accompanied by Wigfrid, his librarian, who assured the Bishop that he could soon find out whether Guthlac was a true man of God or not as he had some experience in Scotland. They were received with great courtesy and Guthlac and the bishop were soon engaged in serious conversation about spiritual and ecclesiastical matters. The Bishop was so struck with Guthlac's knowledge of the Scriptures and with his general outlook on life that he offered to ordain him priest on the spot. In the picture depicting his ordination the librarian stands properly robed holding a book.

THE VISIT OF ÆTHELBALD. Æthelbald, a member of the royal family, came to him, because the king "had hunted him hither and thither, far and wide, and he fled from his persecution and malice". "I have had pity on thee", Guthlac said, "and I have prayed for thee. God will give thee a kingdom and rule over thy people. Thou shalt not get the kingdom by means of worldly things, but with the Lord's help thou shalt get thy kingdom". Æthelbald believed all the things which the holy man foretold. The prophecy was fulfilled; he did obtain his kingdom in the way Guthlac had said, and when the saint died, built an abbey—the first buildings of the abbey of Crowland—over the place where he was buried.

There follows an anecdote of two mischievous crows who entered houses and did much damage and greatly tried the patience of the saint; also a tale about two swallows for whom he found a nest close to his house and who returned there every year. The remark that "birds came to him more quickly than sheep to their shepherd" may be a reference to the migratory birds who came over the North Sea and arrived at the fens in an exhausted condition.

THE PASSING OF THE SAINT, 11TH APRIL, 714. When his last illness came, he knew that his end was come. "The meaning of

my illness is that the spirit must be taken away from the body, for on the eighth day there will be an end of my illness. Therefore it behoves that the spirit be prepared, that I may go to God." He gave directions for his burial. "After my soul departs, go to my sister Pege and tell her to place my body within the coffin and to wind it in the sheet which Ecgburgh the abbess sent. I would not while I lived be clothed with a linen garment." So they set the coffin "in a memorable place, which has since then been honourably distinguished by king Æthelbald with manifold buildings, and here the victorious body of the holy man spiritually rests".

ST. GUTHLAC IN HEREFORD

The connection of St. Guthlac with Hereford lies hidden in the obscurity which covers the three hundred years which elapsed between his death in A.D. 714 and the Norman Conquest in 1066, years of very great importance in local history, because in them so many of our parishes and villages came into existence.

In the year 714 Herefordshire was part of the kingdom of Mercia, which extended from the east coast to the Welsh Border. Of the wars and disturbances which led to the creation of this border we know almost nothing, but that does not mean that nothing happened. The local historian cannot shut his eyes and jump from the Saxon occupation to the Norman Conquest; he must form some idea of what happened, and try not only to work forward from the Norman Conquest but also back from it. For example, he can take it for granted that there was much fighting on the long line which separated the English and the Welsh before it was finally delimited by Offa and marked by his Dyke. For many years before that there must have been a standing army, or a trained body of settlers almost as good as a standing army, always on the watch to protect the new Saxon settlements. The capital cities of Mercia may indeed have been in the Midlands, at Repton and at Lichfield, but the Mercian kings and their armies would be frequently engaged on the frontiers, holding back the Welsh on the west and meeting the ever-increasing menace of Danish invasion on the east. Hereford was a military stronghold, and it is quite likely that the tradition that Offa had a palace on Sutton Walls means that the Saxon army had an outpost there, easily held against sudden attacks. It may be, therefore, that just as the Roman regiments drafted to Hadrian's Wall had brought their gods with them, so the Saxons brought to Hereford from the east the cult of this Saxon saint.

Another important sign of the presence of the Mercian kings in the west was the part they took in the foundation of Gloucester Abbey. Eva, the wife of Wulfhere, the first Christian king of Mercia, was abbess there for thirty-three years and was followed by others of the royal blood. This was probably the reason why the abbey had a dominant influence in church life in the west even

as late as the Norman Conquest. There is therefore nothing surprising in the cult of St. Guthlac in Hereford in Saxon times; what is surprising is the fact that it is not found anywhere else in the west of England. In the east nine churches are dedicated to him, Astwick (Ely), Branstone and Stathern (Leicestershire), Deeping and Little Fishloft (Lincolnshire), Marholt and Passenden (Northamptonshire), and Swaffham (Norfolk), none of them far away from the great abbey of the saint at Crowland. We cannot trace any connection between Crowland and Hereford. In fact the history of the abbey was written by Miss Rose Graham without any reference to our priory (See *Victoria County History of Lincolnshire*). There is no doubt that there was a collegiate church of St. Guthlac in Hereford long before the Conquest. The evidence for this is in Domesday Book; the only church lands there mentioned belonged to St. Ethelbert the mother church, to St. Guthlac, and to St. Peter. As St. Peter's was a new church, recently built and endowed by Walter de Lacy, it can be left out of our reckoning, especially as St. Guthlac's name was soon included in its dedication as the church of St. Peter and of St. Guthlac. The St. Guthlac lands were in Brampton Abbots, Dormington, Hinton, Thinghill, Felton, Hope-under-Dinmore, Moccas, Almeley, Middlewood, Clifford and Whitney. Domesday Book also makes it clear that it formerly possessed additional property elsewhere, e.g. at Bartestree, Bowley, Sutton, Magene (near Bodenham), Little Cowarne, Avenbury and Moccas, which had been taken away from it by Nigel the king's physician.

The old collegiate church of St. Guthlac lay within the circuit of the castle, "*intra ambitum castelli*" (*Gloucester Cartulary*, vol 1, p. 84).¹ It was called the "mother of other churches" by Bishop Robert, and was said to have possessions, "prebends, dignities, parishes", which had belonged to it since their foundation, e.g. the prebend of Hope juxta Magene, the chapel of Felton, the prebend of Ocle below the parish of Ocle Pychard, and Older and Lesser Thynghill (*St. Guthlac's Cartulary*, 499).

It is not quite clear what happened after the Conquest. Some time before 1087 Walter de Lacy, the Norman baron, built and endowed the new church of St. Peter and met his death falling from the walls. As it was dedicated to St. Peter and St. Guthlac, there must have been some connection between those who served in both churches, but there is evidence to show that the old church in the castle was not superseded. In Domesday Book (1087) the lands of St. Guthlac are clearly distinguished from those of St. Peter, and they

¹ A photograph was taken of Castle Green during the exceptionally dry summer of 1933 by Mr. Alfred Watkins. He had no doubt that one of the foundations disclosed near the Nelson column is of a chapel, which he thought was either the chapel of St. Martin's or a chapel ordered by Henry III (*W. C. T.*, 1933, p. 36). The chapel of St. Martin may be dismissed, as an early charter says it was not in the castle but beneath it. I see no reason why we should not say that this was the old church of St. Guthlac.

had evidently been long in the saint's property, witness the robbery committed by Nigel the King's physician at Moccas (*Hereford Domesday Book*, p. 91). Further, when Roger de Port was compelled to restore the church and possessions of St. Guthlac that he had wrongly appropriated, he spoke of "the church of St. Guthlac in the castle of Hereford together with all the presbyteries dignities and everything else which the church held in my days and in the days of my father" (*St. Guthlac's Cartulary*, No. 426). This was in 1143.

It was just at this time that the new priory of Benedictine monks was built, and this, with all the possessions of St. Peter's and of the old St. Guthlac's, was made over to Gloucester Abbey.

"Bishop Robert united the church of St. Peter of Hereford, situated in the Market Place, and the church of St. Guthlac, unsuitably situated within the circuit of the castle itself, and brought them together with all their parishes, possessions and dignities to form one church, and by his authority as bishop consecrated it for the perpetual service of the Lord as the church of the apostles St. Peter, St. Paul, and St. Guthlac, built by him from its foundations outside the city in a place most suitable for religion in the time of Gilbert the abbot." (*Gloucester Cartulary*, l.c.).

Through the influence of the Bishop many additional endowments were now given to the priory, which at once rose to importance. Its history from 1143 to the Dissolution may be traced in its cartulary (14th century), now in Balliol College Library, and in its rent-roll (from 1436 onwards) with a translation into English by Canon A. T. Bannister in Hereford City Library. See his two articles, *Possessions of St. Guthlac's Priory, Hereford, W.C.T.*, 1918, pp. 34-43, and *Obscure episode in the history of St. Guthlac's Priory, W.C.T.*, 1908, pp. 20, *et seq.* Leland repeats the story that, when the priory was built, the body of Bernard Quarre, provost of St. Peter's, who had been murdered before the altar of St. Peter's, was transferred to the new church. The festival of St. Guthlac the Confessor was kept at the Cathedral on 11th April, and the form of service is preserved in the beautiful 12th century Hereford Missal, now in the chained library. His day is not mentioned in the calendars of York and Sarum. Some description of the priory building, written after 1539, appears in *The Topographer*. "The site itself on the north side of the City without Biesters Gate very pleasant and large with much land, spacious gardens and orchards, fine walls, a small rivulet running under the walls called Eigne, the buildings large and great stately chambers and retirements, a large melancholy chapel which being built with many descents into it from the ground and then of great height in the roofs struck the enterers with a kind of religious awe." The cross over the Priory roof is now in the chancel of St. Peter's church.

N.B.—Wirksworth Manor was given to Repton Abbey in 650. There is a record of a coffin of Wirksworth lead being sent by the Abbess of Repton for the burial of St. Guthlac in 714.

Peakland, by Crighton Porteous. The Regional Books. Hale, 1954.

THE BALLINGHAM CHARTERS

By S. H. MARTIN, M.A.

Ballingham is a small parish on the right bank of the Wye between Holme Lacy and Hoarwithy; most of it cannot be seen from the railway as it is over a tunnel. The road to Hereford is not much used, and the Wye, which here is crossed by the railway bridge only, cuts it off from Fownhope and Brockhampton. With the exception of the Scudamore family, who built the Court in 1602, no people of more than local importance have lived in it. The church is very old, though the present building was not begun till the thirteenth century. We learn from the Book of Llandaff that about A.D. 550 the king of Archenfield, gave the church and its lands to Bishop Junapeius, a disciple of St. Dubricius, for Cynfyn, the king's father, was buried here. The church was then dedicated to St. Dubricius. The northern boundary of the kingdom of Archenfield touches the Wye not far away.

We would know very little of the history of Ballingham after the Saxon occupation were it not for one hundred and thirty seven charters in St. Guthlac's cartulary, covering the limited period of thirty-four years, 1237-1271.

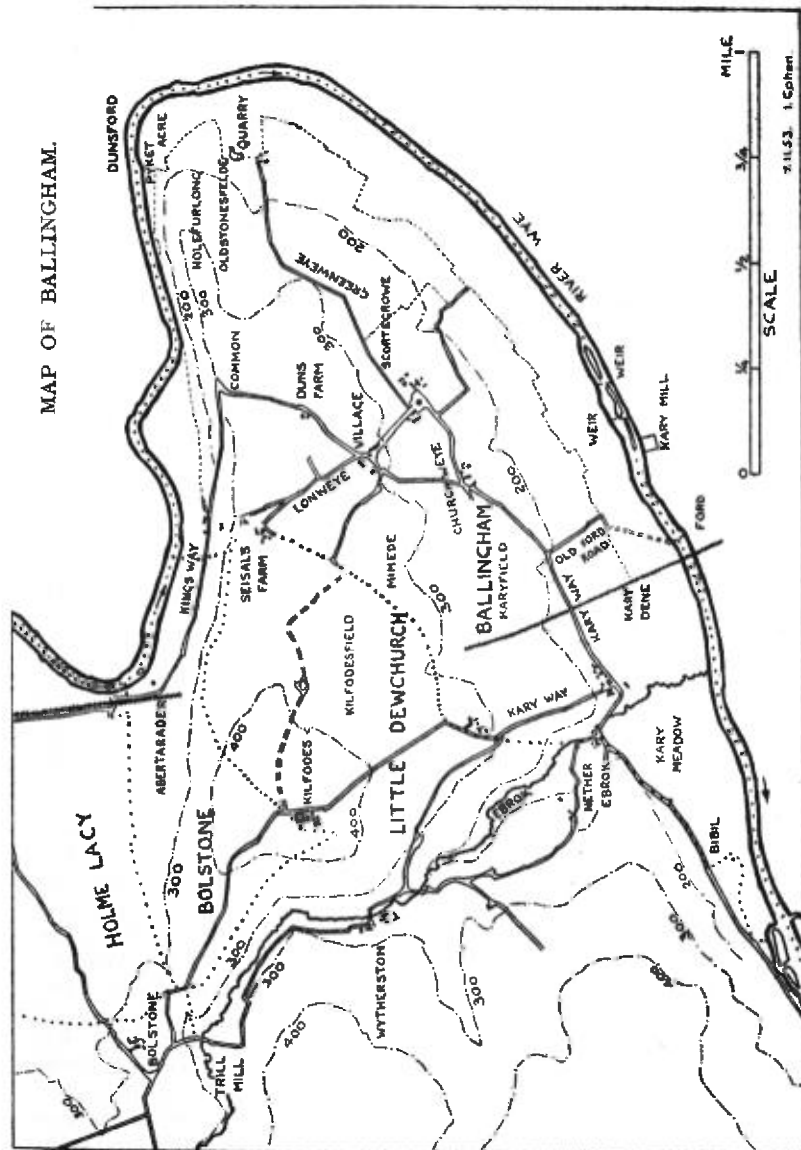
Some time after 1237 William Devereux, lord of Holme Lacy, gave his manor of Ballingham to the monks of St. Guthlac. The prior took possession after paying a capital sum of sixty-five marks and undertaking to pay a yearly rent of five marks and a tribute of thirty-two gallons of honey. Devereux reserved for himself the exclusive right of hunting hares anywhere in the manor.

The charters are not very interesting because they are mainly concerned with transfers of land and property, but so many names of persons and places appear that it is just possible to form some idea of Ballingham in those days. One feature of these charters is the extraordinary variation in spelling. Ballingham is spelt Ballingham, Baldingham and Balsingham by the same man. The name Elias appears also as Eliot and Elioeh; Alfich is also Alurich and Elfrich; Longheye is also spelt as Longen. It may be that names were so rarely written that people did not mind how they were spelt.

PLACE-NAMES

The places named in the accompanying map are nearly all mentioned in the charters and are most of them confirmed by reference to the tithe map and the ordnance map.

The roads were as they are now—they all start from the church—from the church to Hereford, from the church to Carey, and a track which still exists from the church to Kilforge and Bolstone. Churchway, which is still so called, is the road from the church that



joins the road to Carey. Two other roads are mentioned. The Lonweye may be the road leading to Scisal's farm, for there is a small piece of land called Longway in the tithe map. The track running from the church to Deans cottage near the river is probably the Green Way mentioned eleven times in the charters as being somewhere about here. I have not been able to locate the Portway, though the name survives in two large fields called in the tithe map "Nelly's Portway".

Many of the identifications are made easy by the presence of the river Wye towards which all the land in the parish slopes. The arable land must therefore be on the higher ground, the meadow land near the river and the "denes" on the sloping ground that runs down towards the meadows.

The mill of Abertarader was probably at Blackwell's Ditch, where the river turns and where the railway enters the tunnel. It is mentioned in the Black Book of Carmarthen as marking the north east limit of Archenfield. Mr. Gwynne James, in his paper on "The Wye Fisheries Case" (*W.C.T.*, 1916, p. 170), refers to a document of 1544 which mentions land at "Abbotaratis Mill next Wye in Bolstone", and to another of the same year, speaking of "a meadow of Abbotaratis Mill next Wye in Bolstone and all that parcel of land on which the mill stood". The perambulation of Wormelow (1639) passed from Blackways Ditch to "Abbot Tarretts Mill". The cartulary fixes the names more definitely, "The King's road from Ballingham leading to the Mill of Abertarader". It is therefore in Bolstone parish, it is near the Wye, and it is on the road from Ballingham. The tithe map, which shows the parish boundaries very clearly, tells us that there is only one place where Bolstone parish touches the Wye, and that that place is Blackwell Ditch. Together with the other mills it ceased to exist when the Wye was made navigable by an Act passed in 1661.

Dunsford, the ford of the Dun family, is probably not far away from Duns Farm, and may be anywhere between Blackwell Ditch and the point where the river turns sharply towards the east. The Pyket acre, the acre with a point, survives in the tithe map, so called because it is at the corner where Ballingham Hill comes down to the river bank, "between the Wye and the Wallet". Oldestones felde, Oldestones medewe and Oldestones dene, which are definitely near the Green Way, may be placed near the present Lakeway Quarry where there are indeed some old stones. The Green Way is said to lead to some pasture ground called La Buche, which may be a general name for this end of the parish (it may mean the Beech-tree). Holefurlong in the charters may be the same as the ground still called Hollowfield. There is some arable land called Longheye near here. As we follow the sloping ground we come to Hongindelonde (sloping-land), which may be the same as Great and Little Hungerland in the tithe map. A less likely conjecture is

that the pasture called in the tithe map Summerfat is the same as Sumernorde in the charters.

Further down the map we come to the islands where the remains of two weirs show exactly the site of the Kary Mill of the thirteenth century, and of the mill and the forge worked by the Scudamores in the seventeenth century. Three meadows are marked in the tithe map, Mill meadow, Forge meadow and Ford meadow. This was called Waterfordes meadow in the charters. The ford was just above the railway bridge and was approached by the Ford road which still remains, though it is not mentioned in the charters. The sloping ground above the mill was called Denehelde and Havedland (headland).

The stream now called Careybrook was at that time called Ebrok, and the ground near the river was called Nether Ebrok. There is a trace of the name in Brook Orchard, close by the inn, and on the roadside beyond the brook is Biblet's meadow, which appears in the charters as Bibils. Not far from here was "La Lachu", a piece of ground sold by Nicholas Sped to Radulfus de la More. This is probably the same as "a pasture called Lakowe and land called Lacowland adjoining the same" mentioned in the Rental of the Priory for 1541 (f. 20b). I venture to suggest that Scortegrove (Shortgrove) may be woodland such as that not far from the church marked in the ordnance map.

In considering the rest of the parish we must start from the church, round which stood the village. Most of the common or waste was to the north, including the woodland sloping steeply towards the Wye. The rest of the land, or rather some of it, for at that time they may not have wanted it all, was arable, divided up into small strips of one acre or half an acre or even less. It is possible to trace two fields. The land close to the boundary between Ballingham and Little Dewchurch is still called Kilforge field on the tithe map, and the name Caryfield is found there on both sides of the road called Cary Way. Three other portions of ground, however, are called fields in the charters: the Mimedde (perhaps Mynedd, high ground), Ballingham field near the village and Oldstones field towards the bend of the Wye. There are other names which I cannot place: Oldecroft, Oldewythyn, Monkland, Elfurlong, Walloaken, the Benededacre (the Bean Dead Acre?) and Lonebonarende.

HOUSES AND PEOPLE

There are three houses, none earlier than the seventeenth century, which are built on old sites. The first is Kilforge, called Kilfodes (corner of the road), in the charters. Here lived the Adam family. Adam, the son of Alfrich, and his wife Sybil may have had four sons, William who married Margery, John who married Wassilia or Basilea and two others. Isaac also lived there;

he had two sons, William and John, the father of Amabla. There was in addition William Hessett.

The second house is Seysil's Farm. There are three Seysils in the charter: Seysil the son of Elias who had a son Wronoch, Seysil the son of Adam and Amabla, and Seysil "le fouper", whatever that may mean. There is a tomb of William Seycil outside the south wall of the church, dated 1660, but the name died out in the nineteenth century.

The third is Duns Farm. There are no traces of Duns in the parish now, but in the thirteenth century there were Mael, David, Wogan, and Jago Dun, people of some consideration.

Madoc of Kary probably lived somewhere in Carey. Associated with him are Yorford of Kary, and Jehil of Kary, with his sons Richard and Walter.

The Baril family is also very much to the fore, e.g. Henry Baril was a witness to fifty-five charters. There was also Philip, whose wife's name was Custance. Mr. George Terry, who now lives in Carey, is the grandson of a Baril; a quern which is retained in his family as an heirloom may date from the thirteenth century. Its ornamental design would indicate that the original owner was a man of some wealth. In this connection it is interesting to note an entry in the rental of the monastery for the year 1436: "The payment of a rent for (pro) Ballingham in Yrchynfeld to Sybille Trye (Terry), £4 6. 8."

Wogan, who seems to have had no surname, had five sons, David, Robert, Daniel, Jehil and Meruth. David and Robert were clerks, i.e. they had some education and probably took some part in the church service. David had married Wenthlina (Gwenllian) the sister of John Fulbert, and had three daughters, Isolde, Margery and Isabella, who were unmarried. When David died, they realised all their rights to his land, perhaps because, being women, they were unable to cultivate it; they also, as their father had done before them, made gifts to St. Guthlac's priory.

Another very prominent name is that of Radulf de la More, who may possibly have lived at the place still called The Moors, Bolstone. His father's name was Artorius, and he had a son Jehil and a daughter Joanna, who married Robert of Chandos and of Strangford, of the parish of King's Caple. Radulfus bought up much land in Ballingham, mostly in small parcels of an acre or more, paying on the average six shillings an acre. Altogether he spent 133 marks, 11 shillings and 3 pence. He may have been an official of some sort, for William Devereux gave him twenty acres of demesne land in recognition of his services. When he died in 1272, his son-in-law, Robert de Chandos, had a dispute with the Prior of St. Guthlac's, which was settled by the King's itinerant justices at Hereford. The prior seems to have proved his claim to thirty-eight acres, after producing witnesses from the parish, but

had to pay a fine of twelve marks, which he borrowed from Robert, repaying it within the year.

Besides the above there is the Sped family, Nicholas, William, and Walter, and that of Elias (Elioch) and his sons, John, Mael, Seysil, Walter, William and Keyerick.

GENERAL REMARKS

The business described in the charters was probably done at the manor house (*curia*), the head quarters of the priory, perhaps near the church. Here at the manor court the prior's bailiff presided, and John the provost or reeve who was also a deacon (charter 33), and Radulf the Summoner, were also present. We know that the proceedings took place in the parish, because so many of the witnesses were local men appearing in court again and again, some of them as many as fifty times. People from outside who might be interested also came: Richard of Bradeley, William de Per (probably from across the river), Roger from the Callow, Master Stephen of Inkeston, Roger le Bonde of Kings Caple, Radulfus the clerk of Kings Caple, Hugh the dean of Baysham, William vicar of Holme Lacy, Hugh the parson of Birches, Gregory the chaplain of Birches, and the two incumbents of Ballingham during the period, Hugh and John, who are called chaplains. To complete the picture of the manor a few other names may be added: John Godefroi the miller, Bartholomew the apothecary, Abraham the woodward, Wronon the fisherman and Griffin the "pitemon", whatever that may mean.

So far as we can learn from these charters, the free tenants seem to have been allowed to carry on their work on the land without much interference from above. The only dues and demands mentioned, whether from the king, the overlord, the church, or previous owners of the property, seem to have been paid in cash and not in service; but there were certainly other duties to which no reference is made. The lords of the land had legal right to make many demands, but at Ballingham at any rate these may not have pressed too hardly on the tenants. They perhaps felt that they got the best out of their people in this way, and the tenants, though their standard of life was low, showed no signs of dissatisfaction.

Finally, it may be noted that the building of the present church seems to have been commenced just at the time when the manor was taken over by the priory. The Historical Monuments Commission dates the font and the nave as 13th century, the chancel late 14th and the porch 15th century.

A GEOLOGIST LOOKS AT KING ARTHUR'S CAVE

By THE REV. B. B. CLARKE, M.A., M.Sc.

In the saddle between the Great and Little Dowards near Whitchurch is the somewhat square-shaped entrance to King Arthur's cave. It does not look very much, just a rather grimy looking hole in the rocks with a rather damp muddy floor, and yet this cave is one of the most historic sites in Herefordshire. Here the geologist, archaeologist, anthropologist and geomorphologist meet to put their heads together and try to make a picture of the very dawn of history in this area to the west of the Severn. In the picture, or rather the succession of pictures, there are great glaciers advancing down Severn and Wye, huge ice caps many hundreds of feet thick on the mountains of Wales and quite a substantial one on the Black Mountains. The pictures include strange animals now long extinct like the mammoth, elk and woolly rhinoceros which died out twenty thousand years ago and more, but most interesting of all they will include man, not modern man, but palæanthropic man whose long history makes that of modern man seem very short.

It was at King Arthur's cave in 1870 that the Rev. W. S. Symonds discovered the oldest tools of man that have so far been found in the county. They are tools made by Palæolithic man. It is quite agreed among archaeologists that the division known as *Aurignacian* is represented at King Arthur's Cave. This is the lowest division of the Upper Palæolithic age, but it is possible that the Aurignacian occupation may not have been the first, though only further work can make us sure of this one way or the other.

The cave is one of a number which are adjacent to each other, cut in the Carboniferous Limestone. There are two requirements for cave formation: a rock which is soluble in slightly acid peaty water, and really good jointing which will allow the solvent to flow freely. Of all the British rocks the Carboniferous Limestone has these two qualities most highly developed. The outcrop of this limestone on the Dowards is part of the big escarpment of Carboniferous Limestone which surrounds the Forest of Dean coal basin. This basin-like downfold preserves, as it were in a pocket, the younger Carboniferous rocks in a vast expanse of older Devonian Old Red Sandstone. The limestone can be seen in the large quarry above the cave. It is a very hard, almost white, fine textured limestone with excellent bedding planes and vertical joint planes. These cleavages are thought to be formed by a process of contraction which takes place during the drying out, when the unconsolidated mud was first lifted above sea level by earth movements. The caves are produced by peaty water percolating along these planes and dissolving the rock.

The result of W. S. Symonds' excavation of King Arthur's Cave was to reveal that the floor consisted of five distinct layers. The topmost, the most recent, consisted of soft limey material which Symonds describes as a stalactitic layer. The water which seeps through all the tiny cracks in a limestone is always very rich in dissolved carbonate of lime, and when this hangs as a drip from the roof it becomes encrusted with calcite, and forms pendent stalactites which hang from the roof. Water dripping to the floor leaves a corresponding calcareous deposit of stalagmite. The material was generally crushed as if trampled. Mixed with the calcareous layer were bits of pottery and many bones of birds, badgers and foxes. There are a few pieces of the pale blue pottery in the magnificent collection of finds from King Arthur's Cave in possession of Brigadier R. P. Waller at Wyaston Leys nearby. He was kind enough to show us this on the occasion of the Club's visit, and when looking at these wonderful finds one feels that in all probability here is Symonds' original collection.

Below this he came to what he called the upper cave-earth some two feet thick. In this he found human implements mainly of black chert but one of some 'Lower Silurian' rock. We must remember that when Symonds wrote Charles Lapworth had not yet introduced the Ordovician system as a new division to embrace what was formerly called Lower Silurian. The fact that he could not identify this Ordovician rock with certainty suggests it was of some obscure type. Associated with these were the teeth and jaw of a bear, presumably the Cave Bear, *Ursus spelæus*, also bones of horse and beaver. A number of these, especially the last, are in Brigadier Waller's collection.

Below this, and of course older, was a thick layer of sand and silt. This red sand is still quite abundant in the cave today. It is very red and does not match any of the Carboniferous rocks of the Forest of Dean. Its appearance suggests a derivative from the Old Red Sandstone. Symonds saw it when it was fresh, and tells us it was well stratified and had rolled pebbles in it. Some of these he could identify as igneous rocks from the Rhayader and Builth area. It was Symonds' view at the time, and he could not be shaken from it, that this red gravel was what we should now call a terrace gravel, *i.e.*, produced by the river in flood when it flowed at a much higher level than today. If this is right it could mean that the final incising of the great gorge of the Wye post-dates the red gravels, but it could also be the result of unusual conditions at the end of a glaciation. An alternative explanation of this material has since been suggested in that it may be sandy material carried into the cave by seepage water flowing down the joints in the rocks from above. One thing stands out very clearly, it is not derived from the country rock. This red sand and gravel warrants further investigation from a geological point of view. If it is a terrace gravel there should be slight traces left elsewhere on the sides of

the valley up and downstream at about the same level. If it is derived from higher drift deposits these should be found somewhere lying on the surface.

Below the red sand was another layer of calcareous material, this time undisturbed and without fossils. It was some two feet thick. This record is in itself quite important because it makes clear that the cave was abandoned sometime before the flooding and that the flooding was not the immediate cause of its abandonment. This is one of those valuable pieces of information which are so helpful in forming a picture of early man and his habitation of the cave, which could not be deduced from any evidence available today, and would have been lost apart from Symonds' careful recording.

He then came to the lower cave-earth. It was very rich in fossil bones and teeth, and there are a great number in Brigadier Waller's collection. They give us some idea of the animals that were contemporary with Palaeolithic man whose implements were also found in the lower cave-earth. We were greatly privileged to see at Wyaston Leys a large molar of the mammoth, *Elephas primigenius*, bones of the reindeer, *Cervus tarandus*, the elk, *Megaceros hibernicus* and the woolly rhinoceros, *Rhinoceros tichorhinus*. The whole collection is very large, and it represents the remains of joints of meat brought into the cave by early man for his food and then tossed aside and trampled into the earth. A number of the bones in the Waller collection showed signs of being gnawed by hyenas. It is thought that these vicious greedy animals exchanged possession of the cave with early man quite frequently. In addition to the above Symonds records the cave lion, *Panthera leo*, the bison, *Bison priscus*, and the horse, *Equus caballus*.

In trying to form a picture of Palaeolithic man's habitation of the cave we have to bear in mind not only his relation to the animals with which he shared the world about him, but also his relation with the great glaciations of Pleistocene time. There were four of these when conditions were Arctic, and much of the country lay beneath huge sheets of ice with long finger-like projections advancing down all the main valleys. These are named either from the principal centre of ice dispersal or from some part passed over by the bulk of the ice. They are (i) the First Great Welsh, (ii) the second Great Welsh and Great Eastern, (iii) the Main Irish Sea and little Eastern and (iv) the Little Welsh and Hunstanton. Naturally much more is known about the last and most recent of these, and progressively less about the earlier ones. It has been shown that part of the First Great Welsh Glaciation was a tongue of ice down what is now the lower Severn valley as far as Gloucester. This ice eventually melted and a warm interglacial climate spread over the whole country and, what is especially interesting, Chellian man came into East Anglia over a land bridge from the continent of Europe.

Geological time divisions	Years	Periods of intense cold (moderate only in Holocene)	Periods of temperate and warm climate	King Arthur's Cave	Human time divisions	General situation in Severn and Wye valleys, etc.
HOLOCENE	7,800	Second Highland Readvance			Roman Period Iron Age Bronze Age Neolithic Mesolithic	Probably ice in cwms on Black Mountains Probably ice in cwms on Black Mountains
	10,000					
	20,000	Little Welsh Glaciation		?		Severn valley full of ice as far as Shrewsbury, Wye valley full of ice as far as Hereford
			Third Interglacial		Upper Palaeolithic { Magdalenian, Solutrian, Aurignacian }	Great spread of Palaeolithic cave dwellers in Britain
PLEISTOCENE		Main Irish Sea Glaciation				Severn valley full of ice as far as Bridgnorth. Situation in Wye valley not known
			Great Interglacial	?	Lower Palaeolithic { Mousterian, Acheulian }	Long, warm and almost sub-tropical. Man on Cotswolds and many other sites in Midlands
		Second Great Welsh Glaciation				Severn valley full of ice as far as Tewkesbury. Situation in Wye valley not known
	One million	First Great Welsh Glaciation	First Interglacial		Chellian	Whole country clear of ice Severn valley full of ice as far as Gloucester. Situation in Wye valley not known

The parts of column 5 that are printed in black show periods of human occupation.

He does not seem to have penetrated far inland and seems to have departed with the oncoming cold conditions which heralded the Great Eastern Glaciation. This is so called because the principal ice flow was southwards down the eastern plain of England. The flow was fed by ice from Scotland, the Pennines and, curiously, the Lake District, and, more remarkable still, Scandinavia. A tongue of this ice extended down the Warwickshire Avon valley to approach the Malvern Hills from the east. There was ice from Wales in the Severn valley at the same time. Then followed a much longer warm period than the first mild interglacial. It is called the Great Interglacial and has been estimated to have lasted some 300,000 years. During this time Acheulian man arrived in East Anglia and penetrated very much further into Britain than man had ever done before. It seems to have been generally a westerly movement urged on by the new arrival in the extreme east of Mousterian man. Thus the westerly movement of older types, so much a feature of English history of modern times, may be of very ancient origin. There is evidence to show that Acheulian man came as far westwards as the Cotswolds, for an Acheulian hand axe has been found in a drift deposit at the foot of these hills at Barnwood, near Gloucester. A question to which we should like a definite answer but for which there is no certain information as yet is whether Acheulian man came further west and actually crossed the lower Severn valley, the floor of which was at that time much higher and so the valley was shallower than it is today. The slight evidence available is that in the most recent investigation of King Arthur's Cave made by the Bristol Spelæological Society the precise position in the Palæolithic sequence of the oldest implements could not be determined so that the earliest occupation of the cave remains obscure.

The advent of the third or Main Irish Sea Glaciation brought to an end the Lower Palæolithic, though Mousterian man is said to have inhabited the Cresswell caves for some time during the glaciation. In this area ice is known to have extended across the plain of Shropshire as far south as Bridgnorth. Here it is necessary to indicate a very considerable gap in our present knowledge. Although the glacial deposits of the area west of the Malverns have been studied in some detail for the fourth or Little Welsh Glaciation very little indeed is known of the ice movements in this area during the three preceding glaciations. Patches of so called Older Drifts are known to occur but almost nothing so far has been done to sort them out and classify them in anything like the detail that has been applied to the Midland area east of the Malverns.

We thus have to confess that we do not know the extent of the ice in our area at the time of the Main Irish Sea Glaciation. Whatever that was, the cold period came to an end, the ice melted and warm interglacial conditions once again prevailed and with them

came man. These men, who made the oldest of the Upper Palæolithic tools and belong to the Aurignacian division, definitely did cross the Severn valley and came into that of the Wye and inhabited King Arthur's Cave. It is a matter of interest to observe that this cave is quite definitely known to have been inhabited by man *before* the Little Welsh Glaciation which gave us most of our Herefordshire drifts, including the great arcuate spread of terminal moraine left by the Wye glacier extending from Hereford, banked up against the Bromyard downs and on to Leominster. The Palæolithic was brought to an end by the advent of the cold conditions of the last of the great glaciations, the Little Welsh. With the coming of the glaciers man may have survived in these parts for a while but finally the ice held sway, Palæolithic man departed and never returned. During the Holocene glacial conditions returned on a modest scale twice, but never on the scale of the great glaciations of Pleistocene time.

The platform in front of King Arthur's Cave was excavated by the Bristol Spelæological Society in 1926-7 and the report by Herbert Taylor was published in their *Transactions* for 1927.

Briefly their results were to reveal six distinct layers. From the top downwards they first came to what they called the Soil Layer. It is clearly complex in itself and contained implements, ornaments and pottery from Roman times, when the cave was last occupied, through the Iron and the Bronze ages to the Neolithic. Then came the first hearth with Mesolithic implements. This is at present the first human division of the Holocene, the period of geological time through which we are passing now. Below this came a layer of yellow rubble with Aurignacian implements. This was followed by the second hearth also with Aurignacian implements. Below this again was a layer in which the bones of the mammoth, *Elephas primigenius*, were the dominant fossils. Associated with these bones were some flint implements whose age could not be determined. The lowest layer was a red clay, also with mammoth fossils as well as woolly rhinoceros and hyena. In this clay there were also flints whose age and position in the Palæolithic sequence could not be determined.

It is not easy to correlate this succession from the platform with that which Symonds obtained for the floor. The firm establishment of the Aurignacian industry here however is a fixed point of great value, because it provides us indirectly with many clues suggesting further research. Aurignacian man came in after the Main Irish Sea Glaciation came to an end. Below the layer with these implements is the mammoth layer and it is therefore not unreasonable to suggest tentatively that the mammoth layer and the red clay, and perhaps also the red sand and gravel within the cave, are all associated in various ways with the Main Irish Sea Glaciation, possibly melt water running to flood and scouring sand and pebbles from terminal and other moraines. It is some indication

of what still remains to be done that we know almost nothing of this glaciation in the Herefordshire area.

The table on page 79 may serve to set the occupation of King Arthur's cave against the general succession of changes that took place in Pleistocene and Holocene time.

EXCAVATIONS AT CLIFFORD CASTLE DURING 1953

By AIR COMMODORE DOUGLAS IRON

Work commenced on the outer gate at Clifford Castle in September; weather conditions were perfect for the dig and remained so until the late autumn. A certain amount of rubble had already been removed from the roadway during 1952 and I can now report that the whole length—60 feet by 10 feet wide—has been completely cleared down to the original level of the road.

As the work proceeded it was gratifying to note that the walls showed a uniform appearance, being in the same state of preservation and approximately the same height throughout the whole length of the roadway. I presume we must thank the vandals who plundered the dressed stone from the higher levels for this state of affairs, as the unwanted core must have fallen and buried the lower part of the walls and saved them from further damage. There were some anxious moments when the time came to remove the butt and roots of one of the old ash trees—reputed to be over 150 years old—from the top of one of the walls; however, the undertaking was accomplished without damage to the latter.

The next phase—to clear the debris from the outside walls—is well under way. It entails clearing the ground for a distance of some 20 feet from three sides of the gateway down to the footings level. As this level is only a few inches below that of the surrounding field, the final result should show the structure to its best advantage.

The "finds" although not numerous are perhaps worth recording:—

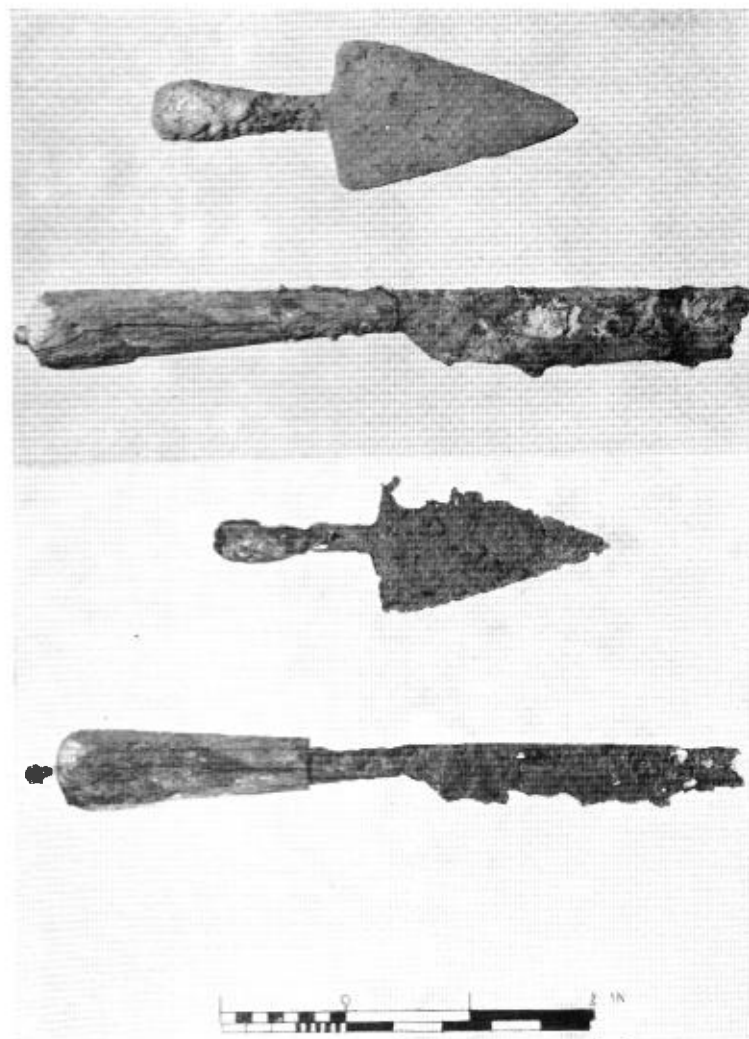
POTTERY

A small quantity of pottery was found, ranging in date from the end of the 13th century to the 17th century.

The mediæval sherds (no rims or bases of this type were found) are of a coarse light-coloured ware, and belong to the 13th and 14th centuries. Some fragments have a poor green glaze, decorated with fine closely set girth-grooves.

Of the 16th and 17th century pottery the most important fragments belong to a 17th century "tyg" or drinking vessel of stone ware with a high glaze of very dark brown colour.

To face page 82



ARROW-HEAD AND KNIFE FOUND IN THE LONG BARBICAN AT CLIFFORD CASTLE, BEFORE AND AFTER CLEANING BY THE OFFICE OF WORKS. Crown copyright reserved.

To face page 83.

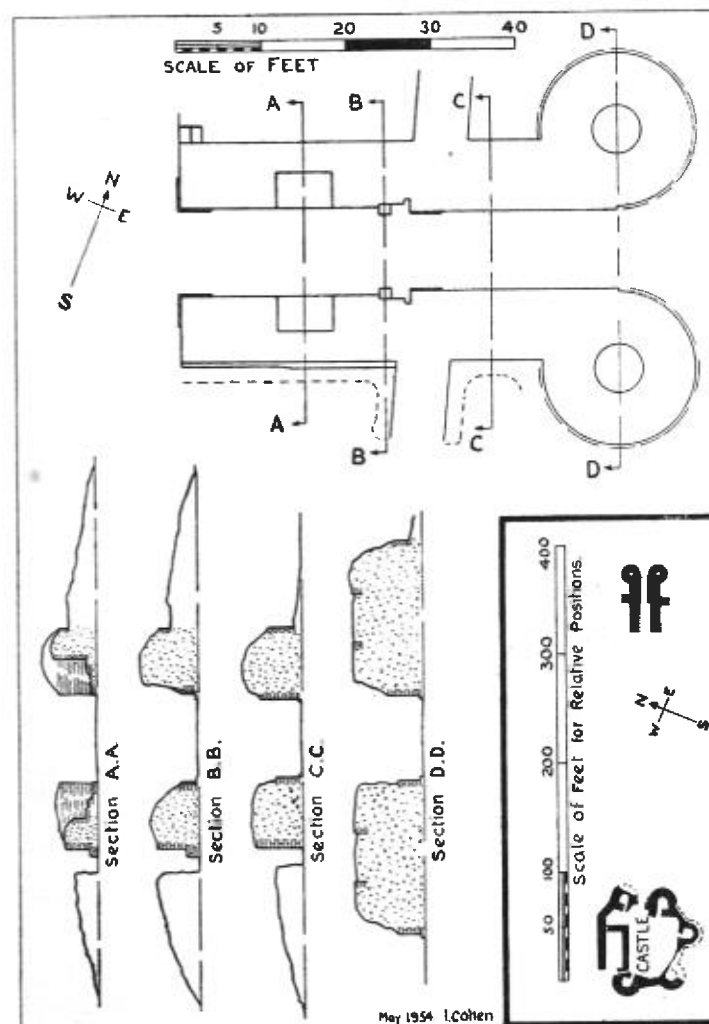


CLIFFORD, looking West.



CLIFFORD, looking North East.

Photographs by I. Cohen



PLAN OF EXCAVATIONS AT CLIFFORD CASTLE BY AIR-COMMODORE DOUGLAS IRON, 1953.

SMALL FINDS

1. Several arrowheads were found, one, in good condition, of a type in use in the 12th or 13th centuries.

Two others are either damaged arrowheads or crossbow bolts, probably of the 14th century.

2. A steel knife with bone handle secured with a brass rivet. c. 1600.

3. Two keys of a mediæval type, exact date uncertain.

4. A bridle bit, of a type very similar to one found at Canterbury, and dated on archæological evidence to the 13th century.

THE HEREFORDSHIRE SCHOOL OF SCULPTURE AND KILPECK CHURCH

By F. C. MORGAN, F.S.A.

The Herefordshire School of Sculpture is of exceptional interest, and various theories concerning its origin have been brought forward. The best appears in *English Romanesque Sculpture* by Dr. George Zarnecki, 1953. In this the learned author states that when Oliver de Merlimond, steward to Hugh de Mortimer, lord of Wigmore, went on his pilgrimage to Santiago de Compostela in Spain, in 1139, he must have travelled through France. After his return to England he was influenced by the architecture he saw on his journey.

It was at this time that he founded the old church at Shobdon which was dedicated by Robert de Bethune, bishop of Hereford, 1131-1148. This once magnificent though small building was pulled down in the 18th century by Lord Bateman who replaced it by a wonderful example of 'Strawberry Hill Gothic' architecture, and erected the arches of the nave and the tympana of the old church as 'ruins' in the park. Drawings of these made by G. R. Lewis and published in 1852 show the great variety and beauty of the carvings, now, alas, much decayed. They vary in style from motifs derived from Scandinavian metal work, Byzantine art, the decoration on Anglo-Saxon crosses, work at Reading Abbey and in Western France.

At Kilpeck, which fortunately is well preserved, we see the work of the Shobdon carvers at its best. The church of St. Mary and St. David consists of nave, chancel and apse, almost unaltered from the middle of the twelfth century. The doorway has beak-head ornaments, monsters and an angel in the main arch. The label above has a chain motif with rings containing birds, monsters and the *Fishes of the Zodiac*. The inner jamb is plain, shorter than the outer, and supports the tympanum which is lower than the main jamb. The left column is carved with warriors wearing tunics

of knotted coils and trews,¹ and the right column has foliage with two facing doves at the foot. On both jambs are twisting dragons. The tympanum has a carving of conventional foliage.

The jambs of the chancel arch are unusual; each has three saints one above the other. On the north is St. Peter with a key between St. Paul and a figure holding an aspergill. These also appeared in the old church at Shobdon, and apparently were derived from St. James' Compostella, where on a twelfth century doorway, the *Puerta de las Platerias*, the same style of carving is found. The Kilpeck carving, therefore, is believed by Dr. Zarnecki to be due to the visit of Oliver de Merlimond. There is no English prototype for such decoration. The treatment of the hair on the figures is unusual also, and the saints' garments are similar to those worn by others depicted in a twelfth-century manuscript in the Cathedral Library (P. 4, iii).² Evidently the Herefordshire school of art was not confined to architecture only. The chancel arch has two moulded orders, the outer, with chevron ornament, and the inner with lozenges and pellets.

Other carvings of note in Kilpeck church are the boss in the apse, one of the earliest known,³ and the corbels around the exterior, which include a large variety of subjects; among them on the wall of the apse are grotesque heads, a figure in a short kilt, grotesque human figures embracing, a ram's head, the *Agnus Dei*, dog and rabbit, etc. On the chancel and nave are many similar corbels, but still more interesting are the gargoyles at the west end which have been identified by Druce as the crocodile swallowing the hydrus (a mythical sea-serpent). These are to be seen at Bury St. Edmunds also, but they were undoubtedly copied from Kilpeck by L. N. Cottingham when he restored the church after he had been engaged upon the restoration of Hereford Cathedral and Kilpeck in the middle of the nineteenth century. At the last place he rebuilt the bell-turret, which was in a bad state, and removed the south porch which for many years had protected the carvings of the south door from the weather.

The font was probably made from limestone found at Urishay, near Peterchurch, and is of the same style as others at Madley (one of the largest in England) and Bredwardine, two nearby villages. The original large stone stopper, carved with interlacing ornament, still exists at Kilpeck, though here as in all Norman fonts in the county, the drain hole has been reduced in size and the stone replaced by a small brass stopper. The holy-water stoup has a design of two arms and hands encircling the bowl. The gallery is of seventeenth-century date.

At the north-east corner of the nave some 'long and short work' can be seen, but this undoubtedly is not Saxon work but a

¹ Trousers do not again appear in art until the days of Queen Victoria.

² See Boase, T. S. R., *English Art, 1100 to 1216*, 1953.

³ See Cave, C. J. P., *Roof Bosses in Mediæval Churches*, 1948.

much later repair. Above it, near the eave, the projecting stones of a destroyed flat buttress can be seen. The window on the north wall of the chancel dates from the thirteenth century and that on the south wall from the fourteenth century; the chancel door dates from the thirteenth century.

It will be seen from the foregoing notes how exceptionally interesting the churches mentioned are to students of architecture and in the history of English art. Kilpeck has remained little altered for eight hundred years and is still used for services for which it was built. We trust that it will be treated reverently for many years to come as a testimony to the loving care and piety of our forefathers. Dr. Zarnecki points out that the Herefordshire school of sculpture has another important feature. An earlier school flourished in southern England between 1120 and 1140 and its greatest work is found in monastic houses, in a style similar to the illuminations in manuscript from these centres. The Herefordshire school was due to lay patrons, as shown by the small size of the churches, greater stress on the elaborate decorations and choice of subjects, which include fighting warriors or animals and birds used in hunting.

Students who wish to see other examples of the Herefordshire school of sculpture will find them at the following places:

HEREFORDSHIRE

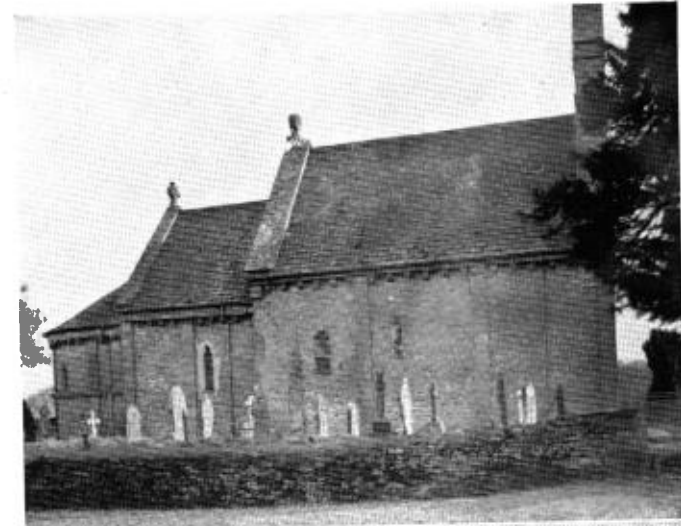
CASTLE FROME, where the exceptionally fine font depicts the *Baptism of Christ* (the Jordan is shown as a round pond—the only known instance of this treatment) and the emblems of the four evangelists on the bowl. The base has three crouching figures, with unhappy faces, believed by some to typify the spirits of paganism being driven out by Christianity.

EARDISLEY has a good font with the *Harrowing of Hell* and fighting warriors dressed as those at Kilpeck. Notice should be made of the treatment of their hair: this is similar to that at Kilpeck, Stretton Sugwas and elsewhere.

ORLETON. Probably the font was from the same school of sculpture. Nine Apostles are carved somewhat crudely in the same style as the figures at Kilpeck. Here, again, St. Peter only has his emblem of a key; the other eight figures hold books in their left hands.

SHOBDON, in addition to the remains already mentioned, has the old font with four well carved lions on the bowl. This had been turned out of the church and used as a garden ornament, but is now well cared for in the new building.

STRETTON SUGWAS has a fine tympanum depicting *Sampson and the lion*. This is now inside the new church, having been taken there when the old one was demolished in the nineteenth century. It is by a master craftsman, and is said by Dr. Zarnecki to be

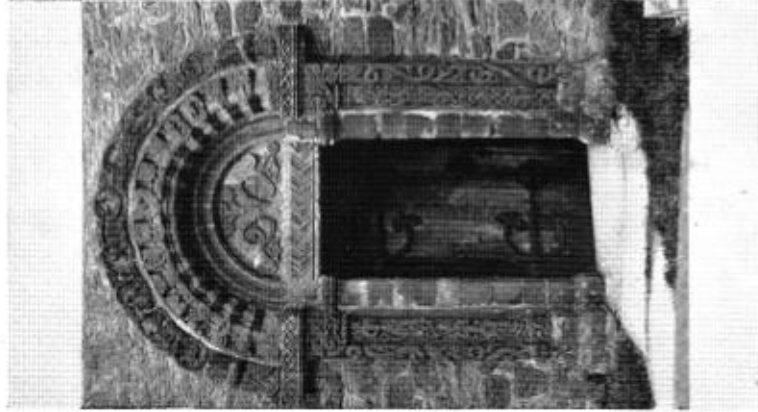


KILPECK.

1. North side

2 East end.

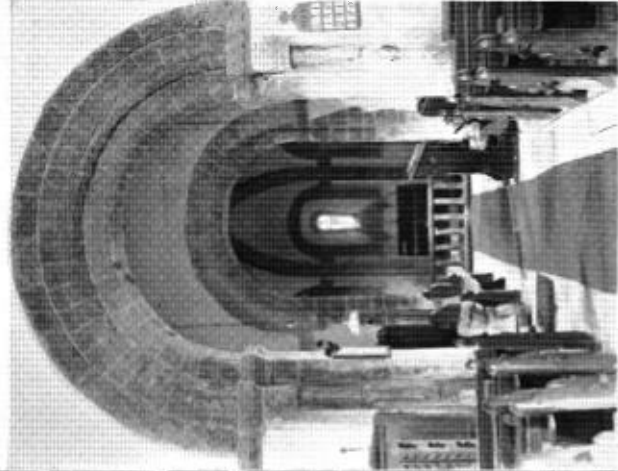
Photograph by A. C. Roxburgh.



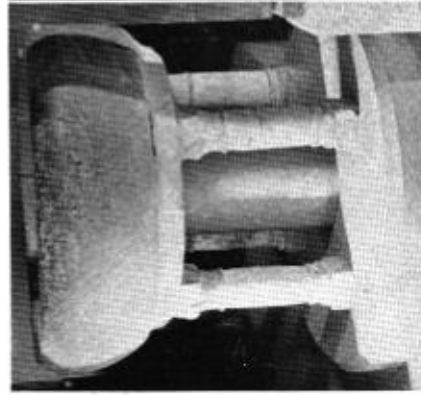
South door.



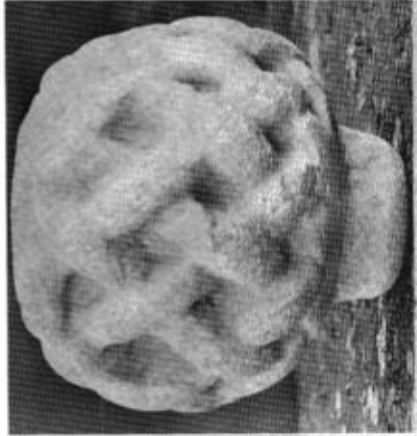
KILPECK.
Jamb of south door.



Interior.



Font.



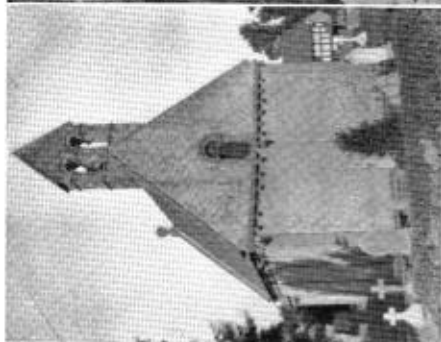
KILPECK.
Font stopper.



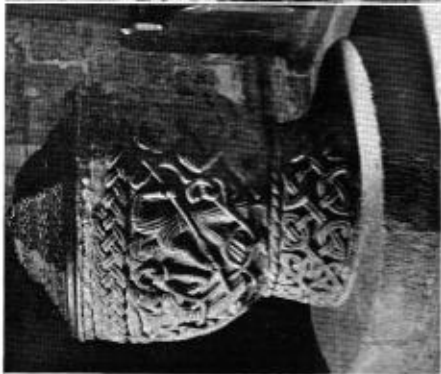
Holy water stoup.



CATTLE FROME FONT.



KILPECK. West end.



EARDISLEY FONT.



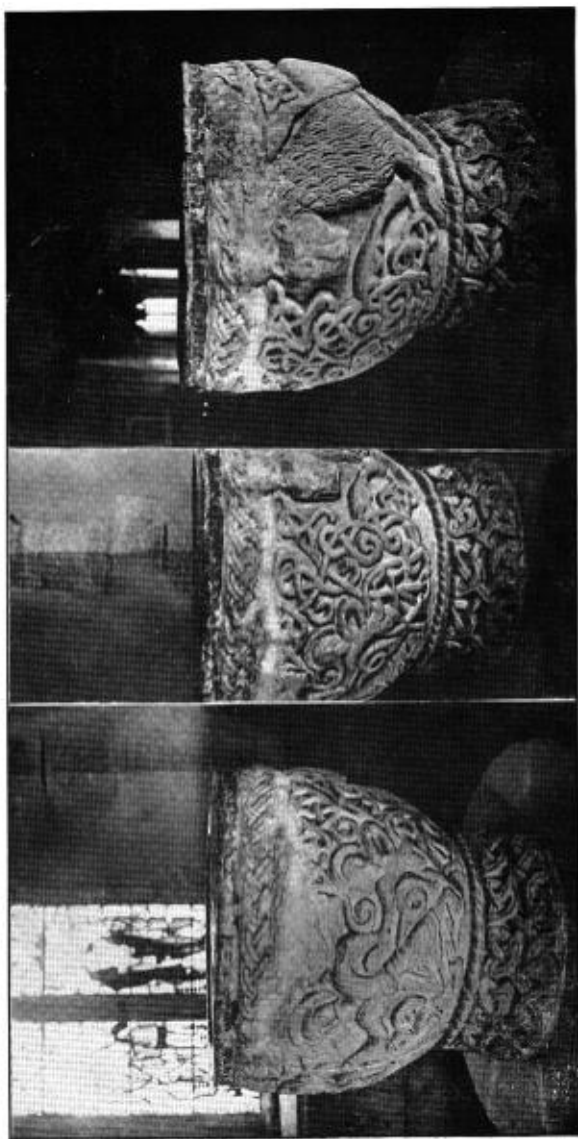
CHADDESLEY CORBET FONT.



ORLETON FONT.



SHOBDON FONT.



Photographs by G. A. Watkins

EARDISLEY FONT.



1. RUARDEAN TYMPANUM. 2. and 3. SHOBDON.
From drawings by G. R. Lewis.

derived from a tympanum showing the same subject at Parthenay-le-Vieux.

BRINSOP has another tympanum derived from Parthenay-le-Vieux where there is one depicting a horseman with a hawk trampling on the body of an enemy. This again is derived from an equestrian statue of Marcus Aurelius which was in the Lateran in the twelfth century, and was wrongly believed to be of Constantine the Great. The two French tympana were seen by Oliver de Merlimond on his pilgrimage and sketches were made by, or for, him from which the *Sampson* at Stretton Sugwas and the *St. George and the dragon* at Brinsop were designed. Comparison of them all leaves no doubt of this in the opinion of Dr. Zarnecki.

LEOMINSTER. The west end of the nave at Leominster belongs to the Herefordshire school. The carvings on the capitals of the west doorway are somewhat similar in treatment to those at Kilpeck, and the small west window has good carvings. Inside the church on the north capital of the doorway is a small *Sampson and the lion*, carved, perhaps, by an apprentice.

In *The Art Bulletin*, published by the College Art Association of America, in September, 1950, there is a learned article by Selma Jónsdóttir on "The Portal of Kilpeck Church: its place in English Romanesque sculpture". The author points out the many similarities in the details here with those found in the remains of Reading abbey. His conclusion is that the Kilpeck school "depends for its motifs and forms on the sculpture of the great abbey at Reading through its priory at Leominster". It will be remembered that the latter was given to Reading abbey by Henry I in A.D. 1123, and apparently a church was begun shortly afterwards and dedicated by Robert de Betun about or soon after 1141. In the article mentioned there are many illustrations.

ROWLESTONE has a well-carved south doorway with interesting capitals and a tympanum carved with a *Majesty*. The chancel arch has diaper work on the roll moulding and on the chamfered label. The capitals have small figures similar to those on the jambs of the chancel arch at Kilpeck, but curiously that on the south side has the figures carved upside down on the same stone as a bird (similar to one on the north capital) which is right way up.

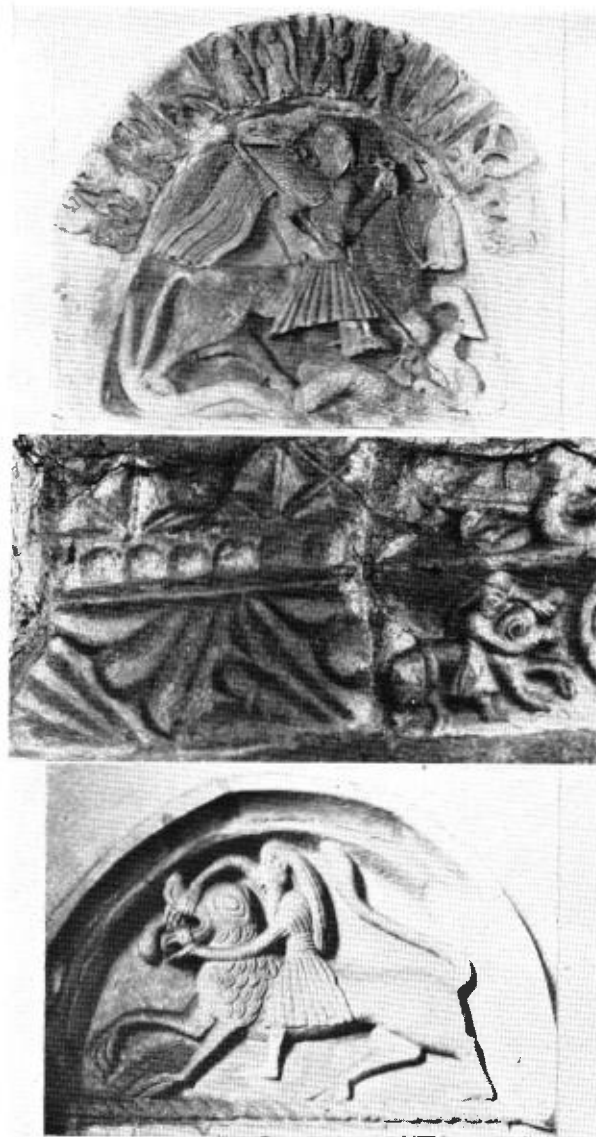
WORCESTERSHIRE

CHADDESLEY CORBET has a good, well-proportioned font, with a beast having an interlacing body and other interlacing work.

ROCK has a north doorway and chancel arch showing Herefordshire features.

SHROPSHIRE

STOTTESDON has another good font carved with beasts and interlacing work.



1. BRINSOP TYMPANUM. 2. LEOMINSTER CAPITAL.
3. STRETTON SUGWAS TYMPANUM.

GLOUCESTERSHIRE

At RUARDEAN is a tympanum depicting *St. George and the dragon*, not quite equal in merit to that at Brinsop.

The writer is much indebted to the authors of the following two books: Zarnecki, G. *Later English Romanesque Sculpture, 1140-1210*, Alec Tiranti, 1953, illus.

Boase, T. S. R. *English Art, 1100-1216*, Oxford, Clarendon Press, 1953.

Measured drawings of all the carvings at Shobdon and Kilpeck appear in the two works on these subjects by G. R. Lewis, published 1852 and 1842. The former is especially important as it shows the Shobdon carvings when they were in good condition.

THE ACCOUNTS OF ST. KATHERINE'S HOSPITAL, LEDBURY, 1584-1595.

Transcribed, with a glossary, by F. C. Morgan, M.A., F.S.A., F.L.A., and preliminary note by A. J. Winnington-Ingram, M.A.

THE HOSPITAL. St. Katherine's Hospital, Ledbury, was founded in 1232 by Hugh Foliot, bishop of Hereford as an almshouse rather than as a hospital for the sick, and there have always been brethren and sisters there under the control of a Master or Warden. Bishop Foliot assigned the government of the hospital to the Dean and Chapter of Hereford, who were to appoint the Master and brethren, and he endowed it with certain property in Ledbury. Other benefactors gave larger estates and tithes in Eastnor, Weston Beggard, Yarkhill, and Kempley, all of which places are mentioned in the accounts which are here set out. Canon Bannister in his paper on the hospital, published in the *Woolhope Club Transactions* 1918, p. 62, has traced the ups and downs of its history during the Middle Ages, but we are mostly concerned here with the years 1584-1595, to which the accounts refer.

ELIZABETHAN STATUTES. When the estates of the Hospital had been won back from Bishop Scory, as the result of a law-suit in the Court of Exchequer, new statutes¹ were laid down by the court for the government of the hospital. Among other things it was directed "that the Master should be a Canon Residentiary, nominated by the Dean and Chapter, to hold the office for life, that he should enjoy the mansion house and the demesne lands, at the rate of £12 14s. 6d. annually, and keep them in his own manurance; that he should be resident at the Hospital four months at least in every year; and that he should receive the rents of all the hereditaments, and repair out of them his mansion-house and appurtenances, the houses of the brethren, and the houses of the demesne,

¹ The original deed, signed by Lord Burghley and other well-known barons of the Exchequer, is in the Cathedral Library.

rendering an annual account to the Dean and Chapter". It was also directed that the Dean of Hereford, and two at least of the Chapter, should visit the hospital once every year, and ordain statutes and rules for the direction and government of the Master, brethren, and sisters, as near the intent of the founder as conveniently might be.

Note the recurrent entry in the accounts each year

"Imprimis the Charges of Mr. Deane and the rest of the Chapter, sitting at Ledbury in visitacon of the saide Hospitall on the saide feast of St. Michael, for their horse meate and their expenses there xis"

MR. EDWARD COOPER. The first Master to be appointed under the new statutes was Edward Cooper. There is a memorial to him in Ledbury parish church, showing him as a tall spare man with a long white beard, dressed in his Elizabethan ruff, his gown, and square cap. The inscription reads thus

"Edward Cooper grave, learned, and wise
Archdeacon of hereff. and Canon Erst here lies
of Ledburies Hospital Maister in his life
The poore did p'tect, their land rid from strife
He deceased the xvi day of July An. Domini 1596"

Cooper faithfully carried out his duties at the hospital rendering his accounts to the Dean and Chapter year by year. Although the accounts here published begin at Michaelmas, 1584, the summary at the end speaks of the sums expended by Mr. Cooper from Lady Day, 1581, onwards, and it seems probable that he was appointed Master in 1581, immediately after the issue of the new statutes. He held the office until his death. The two great events of his Mastership were the rebuilding of the mansion house, and the law-suit by which he regained certain properties of the Hospital which had been wrongfully alienated. Both these events have their influence on the accounts.

(Note. 1595. Item payde to Mr. Thomas Willis for prosecuting sute in the exchequere against Gyles Nanfan Esquier and Wm. Mutlowe for withholding rentes due to the said Hospitall xxxs.)

THE MANSION HOUSE. Canon Bannister in his article (*v.s.*) says that the first result of the new statutes was "the building of a mansion-house in which the new Master might reside"; This suggests that there was no such house previous to 1580. But the statutes themselves prove this wrong by saying that the Master should "enjoy the mansion-house and keep it in repair". Further, the description of the house given in Vol. II of *The Historical Monuments Commission on Herefordshire* shows that the present building incorporates a 15th century house, with a central hall, and kitchen and solar wings at the east and west ends. It was this older mansion-house, or what remained of it in 1580, which Edward Cooper repaired, enlarged, and beautified. The *Historical Monuments Report* continues "the Dining room in the former Solar-wing is lined with late 16th century panelling with an enriched frieze; the fireplace is flanked by Ionic pilasters and above the

opening are four arcaded panels divided by pilasters; the overmantel has a late 16th century painting of Bishop Foliot the founder with inscriptions, and on the frieze above are the initials and date E. C. 1588".

So here, still standing for all to see, is part of Edward Cooper's work.

THE ACCOUNTS. The reader may now turn to the accounts with more idea of what they are about; He will appreciate the careful management of Edward Cooper, and rejoice in the item

"For setting certyne stones in the parlor chymney to save the wainscott from the fyre iiij d."

It was 4d. well spent, for the wainscot is still there for us to admire. But the accounts deal with the whole property of the hospital, not with the Master's house only, and they give us an interesting and complete picture of the administration of an ancient charity in the 16th century. May the present trustees of St. Katherine's be worthy of their distinguished predecessor!

THE ACCOUNTS

Page 1

1585

The Acompte of Edward Cowper clerke of the Hospitall of Ledburie belonging to the De(an and) Chapter of the Cathedrall Church of Heref for all his Charge and Receipt of Rentes apper . . . to the same Hospitall from the feast of S^t Mich . . . tharchangell Anno domini 1584 Regnique dne Eliz . . . Regine xxvj^{to} untill the same feast Anno domini 158 [5] Regnique eiusdem Regine Vicesimo septimo viz pro uno Anno integro.

Inprimis Receyved at the saied feast of the Annunciacon in the saide yeare 1585 for the first half yeares Rent due to the said Hospitall at the feast aforesaid

Summa xlviij^{li} xv^a

In festo
sancti
Michaelis
Archi
Anno
domini
1585

Item Receyved at the feast of Saint Michael Anno domini 1585 for the last half yeares Rent due unto the said Hospitall as aforesaid

Summa xlviij^{li} xv^a 97 - 10 - 0

Item more of Free Rents in Ledburie Eastno^r and weston w^{thin} the Countie of Heref foresaid due at the feast of S^t Michael aforesaid onely

xix^a ij^d ob

Item more of the Free and Customarie Rents of the Bearowe in the Countie of worcestre due at the saied feast of S^t Michael

xxvi^a x^d ob

Summa xlvj^a j^d

Summa totalis

Recept lxxxix^{li} xvj^a i^d

Page 2

Solutions and payments
ordinarie

Inp(ri)mis allowed to the said Mr. or Warden out of his Receipts and Chardge afore w^{thin} specified for the Stipends and Salaries

due to the said M^r or Warden and due to the Brothers, and Systers of the said Hospitall at the feasts of the Annunciacon and S^t Michael aforesaid by equall porcons viz for one whole yeare

Summa lxxx^{li}

Solutiones Reprisat

Item more to the said M^r or Warden for certeyn Pensyons, Procurations, cheiffe rents, commen fynes, and out rents yssuyng out of the Receipts, and Chardge a foresaid at the feasts before mentioned yearlie

ix^{li} xiiij^a j^d

Summa tollis Allocat

ordinar predict p(er) An lxxxix^{li} xiiij^a j^d

Et adhuc de Recept et onere p(re)dict reman x^{li} iij^a Whereof

Solutions payments and
disbursem^{ts} extraordinarie

Inprimis the Chardges of M^r Dean and the rest of the Chapter sitting at Ledburie in visitacon of the said Hospitall, at the said feast of Saint Michael 1585, for their horse meate, and other expenses there

Summa xj^a ij^d

Page 3

1584

Octobre

Inprimis for ij^c of borde nailes

xij^d

Item to Tho. Parry for sorting the tyle one daye ultra diett

iiij^d

Item to Hopley v^d and Cooke iiij^d for sawing ij dayes ultra diett

xviij^d

Item to Hopley for Cutting a summer of Elme to putt in the hall

viiij^d

Item pd to Tho. Byston for a poull of wodde to make staves for Cratches in the stable

viiij^d

Item to Thomas Hall for ij payres of hinges, and for mending two lockes

viiij^d

Item to Robert Turnor v^d p(er) diem for iiij^{er} dayes worke ultra diett

xx^d

Item to Michael Skynnrr iiij^d p(er) diem for iiij^{er} dayes worke ultra diett

xij^d

Item for spike nailes ij^d and borde nayles iiij^d

vj^d

Item to Robt Turno^r for iiij^{er} dayes worke ultra diett

xx^d

Item to Michael Skynn(er) Carpenter for one daies work ultra diett

iiij^d

Item to John Dodd for ij daies worke abouts th'ovens ultra diett

x^d

Item to William Webster, als Tanner for bringinge stones in place to the masons two daies ultra diett

vi^d

Item to John Hardwicke mason for three daies worke abouts the same Chymneye and ovens besides diett

xv^d

Item to Henry ap Thomas for iiij^{er} dayes worke et diett

xvj^d

Item to Richard Frauncis for iiij^{er} dayes worke abouts the chymney besides diett ...
 Item to the goodwife Little for three nights lodging for the same three masons
 Item for iiij^c lathe nayles, viij^d for stone nayles iiij^d, and spike nayles j^d
 Item more to W^m Tanner for bringing stones in place to the masons for two dayes
 Item for a quier of paper
 Item to John Ballard for a Poull to make lathe

Summa o - xvij^s vij^d

17.7.

Page 4

1584

Item to John Hopley for iij daies sawing after iiij^d p(er) diem
 Item to W^m Cooke for iij daies sawing after iiij^d p(er) diem
 Item for spike nayles iiij^d, and lathe nayles j^d
 Item to W^m Tanner for one daies worke more
 Item to Robte Turno^r for fower daies worke...
 Item to John Hopley and Will^m Cooke for sawinge ij^c of bordes after xiiij^d the hundred
 Item to John Dodds ij^s vj^d, and Parry his man xvij^d for vj daies worke to eche of them.....
 Item to Tho Collyns ij^s vj^d, and John Hardwicke ij^s vj^d masons for vj daies worke in finishing the chymney and tylinge
 Item to Henry Ap Thomas ij^s, and Richard Frauncis xvij^d, for vj dayes working in tiling on the killen and on the chymney ...
 Item to the widowe Hall for one weekes lodging of the said iiij^r masons
 Item for an hundred of borde nayles
 Item more for borde nayles iiij^d, and spike nayles j^d
 Item to Robte Turno^r for vi daies worke
 Item for drawinge of thatche one daies worke
 Item for one daies thatching the newe howse over the Hogges.....
 Item to Robte Turno^r for twoe daies worke in making the said Hogges howse
 Item more to him
 Item more to John Hoppley and Willm Cooke for sawing v C of bordes after xiiij^d the C ...
 Hactemus exposit per
 T. Buckenhill

November 1584

Novembris

5 Inp(ri)mis to Tho Byston for studds and wyndings
 67 Item to Robte Turno^r I paid for v daies worke on the said newe kytchin
 7 Martij Item to John Dodd mason for dawbing the panes of the gallerie and newe stayers

¹ Error in total or items.

8 Item to Robt Turno^r Carpenter for one daies worke in the newe Kytchinge besides diett
 Summa o - xl^s iiij^d

Page 5

APRILL 1585

4 Aprilis

Item for iiij^{er} thowsand tyles stones bought & digged in Teddiswode
 xxxviijs

May 1585

10 May Item to Morgan the glasier for iiij^{er} foote of glasse in the Chappell ultra diett
 11 Item for Lath nailles j^d to the glasier, and for his j^d bed in the towne
 12 Item for nailles ij^d to mende the Barrell in the Pigeon howse, for mending ij^d, the same by a Cooper
 14 Item for a bz of Hearelyme for the Tylers over the Hall
 15 Item to Tho Buckenhill for certein sawed boords
 4 Timber trees Item to Tho Turno^r for markeing fower tymber trees in Teddiswoode bought of Mr. Rudhale Esq^r
 bought for wainescot, Item paid for the same trees
 table & Item paid for a bz of Hearelyme
 stooles Item to John Hardwicke x^d, for tiling over the Hall two dayes after v^d, the daie besides diett, And to Rich. Frauncis vj^d, his man after iiij^d the daie wth their Lodginge in the towne j^d
 21 Item for an other bz of Hearelyme iiij^d, to amend the flowre over the deyhowse and for bord nailles ij^d, and spikenailles to amende the yates
 24 Item for a mendinge the lockes the larder howse j^d, and the doore j^d, over the deyhowse wth a key iiij^d, and staple to the same doore; and also for mending the key to the little garden
 June 1585

2 Junij Item for one other tymbre tree in Teddesmore wodde
 timber in Tedswood
 6 Item for nailles to dresse an olde cubbe

Julie 1585

10 Julij Item for taxe moneye wthin the Burroughe of Ledburye
 Item for the taxe moneye of Tyrells frythe in Little Marcle
 Summa v^l ix^s v^d

4.18.5

Page 6

Julie 1585

July Item to John Bunde and his man for makeing a gutter to conveighe the wast water from the Towne Cunduitt in to the Hospitall poole
 iijs vjd

13.14	Item to Robert Turnor and his man for rabbating the bords over the boulding howse, and makeinge a newe stayer to the servants Chamber nexte to the stable besides dyett	iijs	
15.16	Item to the servants of Henry Poole, and Chrofer Matthowes bringing by wayne two loades of tyles stones from Teddeswoode besides diett	xij ^d	
Daies			
	August 1585		
	Item for one loade of greate paving stones bought of John Meeke	ij ^s	vj ^d
	Item for ij bz of Carlyme		vij ^d
	Item for one dayes worke in drawing of strawe.....		j ^d
	Item for thatchinge one daie at dunbridges		iiij ^d
	Item to Thomas Buckenhill for one thousand of tyles stones	xiijs	
	Item for nayles		x ^d
	Septembre		
13 Septemb	Item to the se'vauntes that cam w th the teemes w th v loades more of Tyles stones from Teddeswoode besides theire dyett ..	iijs	ij ^d
15	Item to Willm Tailor smith for Hinges to the portall in the parlor		viijs ^d
	Item two little boltes to the same newe portall		iiij ^d
	Item for a Ketcher, and Letche, and a clippe j ^d , to the same.....		v ^d
	Item for a keye iijs ^d , and staple to the boulding howse doore		iiij ^d
a ioyner	Item to Richard Wodde ioyner x daies and willmm Chalinor vj daies of Mordiford Turnor after vj ^d the daie for makeing the foresaid new portall (besides theire meate, pannell, puntchins, and Raylles	viijs	
x dayes	Item to Thomas Collyns mason, and Tyler for himself and his se'vaunt in mending the harthe and backe of the Kytchen chymney and beeting the barne, the se'vauntes chambre, and the Hall after v ^d for himself and iijs ^d a daie for his se'vaunt in all xvj daies & an half besides theire diett, & lodging	viijs	iiij ^d
	Item to the same for batteringe 3000 of tyles stones in Teddeswoodde	iijs	
	Item to Robt Turnor and Richard Homes carpenters for makeinge the Curbe to the furnace		x ^d
	Summa o - xlix ^s xj ^d		
49.11			
Page 7	September		
	Item for falling of one Elme in M ^{res} Willisons grownde		iiij ^d
	Item for sawing the same in Kirfies for the Curbe		viijs ^d

	Item for fetchinge punchings from Fownehope to make the portall by Willm Lucye.....	iijs ^d	
	Item for lathe nayles, stone nailles, busshell nailles, spike nailles, hatche nailles, and bord nailles for the said Tylers, Carpenters, and for the furnace at sundrie tymes bought at George Hunts	xxij ^d	
	Item to Willm Tailor Smyth for viij plates of yron to the furnace	viijs ^d	
	Item to Thomas Hall plumber for iiij ^{er} plates of Leade weyenge xviijs ^{ll} after j ^d ob. the pounde for the same furnace	ij ^s	iijs ^d
	Item to the same for setting on the said plates besides diett		xv ^d
	Item to a tyncker		iijs ^d
	Item to widowe Hall for lodging the said masons & ioyners one fortnight		viijs ^d
16	Item for vj bz of carlyme bought of John Skynna(er) tanner		xviijs ^d
	Item for i bz of unslaked lyme		vj ^d
	Item for v bz of hearelyme		xv ^d
21 Septemb	Item for a stocke locke wth a keye for the Chappell-doore bought on St Mathewes daye	xxij ^d	
12.3	Summa o - xij ^s iijs ^d		
	Summa totalis xiijs ^{ll} viijs ^d excedit/xxxvijs ^s viijs ^d		
	exposit		
	p(er)used seen & allowed by		
	Jo Watkins		
	Wyllm Panson		
	Edward Threlkeld		
	Page 8 (Blank)		
	Page 9		
1586	The Accompte of Edward Cowper clerke or warden of the Hospitall of Ledbury belonging to the Deane and Chapter of the Cathedrall Church of Heref of and for all his Chardge & Receipts of Rents appertayning to the same Hospitall from the feast of St Michael tharchangell Anno domini 1585 Regnique dne nre Elizabeth Regine vicesimo septimo, untill the same feaste Anno domini 1586. Regnique eiusdem Regine vicesimo octavo, viz pro vno Anno integro		
	Inprimis Receyved at the feast of the Annunciacon in the said yeare 1586 for the first half yeares rent due to the said Hospitall at the feast afore said	xlvijs ^{ll}	xv ^s
	Summa xlvijs ^{ll}	xv ^s	
	Item Receyved at the feaste of St Michael Anno domini 1586, for the last half yeares Rent due unto the said Hospitall a fore said	xlvijs ^{ll}	xv ^s
	Summa xlvijs ^{ll}	xv ^s	
	Item more of free Rentes in Ledburye Estno ^r and weston w th in the Countie of Heref fore said due at the feast of St. Michael afore said onelie		xix ^s ij ^d ob

Item more of the free and Customarie Rentes
of the Bearowe in the Countie of worcester
due at the feast of St Michael

xxvj^s x^d obSumma xlvj^s l^dSumma to^{lis}

Receipt

lxxxxix^{li} xvj^s j^d

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Solutions and payments
ordinarie

Inp(ri)mis allowed to the said M^r or warden out
of his Receiptes and Chardge a fore w^{thin}
spied for the Stipends and Salaries due
to the said M^r or warden, and due to
the Brothers and Systers of the said Hos-
pittall at the feastes of Thannnuaciacon
and St. Michael afore said by equall porcons
viz for one whole yeare

lxxx^{li}Summa Lxxx^{li}

Solutiones Reprisat

Item more to the said M^r or Warden for
certain Pensyons, Procurations, chieffe
Rentes, commen Fynes, and out rentes,
yssuynge out of the receiptes, and Chardges
afore said at the feastes before menconed
yerelye

ix^{li} xiijs^s j^dSumma ix^{li} xiijs^s j^dSumma to^{lis} Allocat

ordinar predict p(er) Annum

Lxxxvix^{li} xiijs^s j^d

Et adhuc de Receipt et onere dict

reman⁷x^{li} iij^s

whereof

Solutions payments and
disbursem^{ts} extraordinarie

1585

Inprimis the Charges of M^r Dean and the rest
of the Chapter, sitting at Ledbury in
visitacon of the said Hospittall at the said
feast of St. Michael 1586 for theire horsse
meate and theire expenses there

xl^sSu xl^s

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November 1585

Novembris

9^{no} die

Inp(ri)mis for a busshell of Hearlyme

iijs^s

Item for 700 of lath nailles

ij^s vj^dItem for stone nayles 300 x^d and spick naillesxij^d

Item for latches and cathe for a windowe in the

iijs^s

hall

ij^d

Item for hookes to hang bacon on

ij^d

Item to Tho : Collins for eighte dayes worcke-

v^s iijj^d

ing in sorting and scubling tyle stones after

v^s iijj^dviijs^s the dayv^s iijj^d

Item to Harry ap Thomas his servaunt for v

v^s iijj^ddaies after vj^d the daye, and to Jamesv^s iijj^dCollins his sonne after iij^d the daye forv^s iijj^d

two daies

v^s iijj^d

22 die

Item for the dole in barne

v^s iijj^d

Item to John Banckes for certain studdes to

v^s iijj^dthe portall in the p(ar)lo^rv^s iijj^d

23

Item Barne to make the dole breade

viijs^s

Item a quier of paper

iiij^d

Item a locke and a key for the Chamber dore

where the Bailif of Husbandrie, and the

hyndes doe laye

vj^d

Item borde nayles

iij^d

Item to Robte Crowse for one daies hire in

making a range in thoxe howse

viijs^s

Decembris

Decembris Item to Thomas Wheeler for sawing viij^o ofdo bordes nayles, and plainckes after xvj^d the

22 die c. In all

x^s viij^d

Item the tree, where of the same was made

v^s

Item for bord nayles aboutes the setting up

the pales

x^dJanuary Item for vij Elmes bought of M^{res} willisonxxxiijs^s iij^d

26 Item for the falling of them to two workemen

after viij^d a daye to eche of them in two dayesij^s viij^d

Item to Robte Crowse for digging up and

removing of fruit stockes in grove feld,

and graffing there of some other stockes two

dayes

xvj^dSumma huius pagine o iij^{li} x^s j^d

3 - 10 - 1

Page 12

1585

January

29

Item to Robert Turno^r, and two Carpenters

besides for cutting, hewing, and squaring

the said Elmes after x^d to eche of themij^s vj^d

Item more to two of them for one daies worcke

aboutes the same

xx^d1^o die Item to Thomas Buckenhill for 200 pales, &Februarij xx^{li} railles out of dingwoodde parke after12 ix^d the score of pales, and j^d railleix^sItem to M^r John Cowles for xiijs^s perkes of

pales of all sortes, with the studdes, postes,

and rayles as they were standing in the

said parke

viijs^sItem to Robte Turno^r and Crowse Carpenters

for dressing and sorting the said pales two

dayes, after viij^d to eche of them for the

daye

ij^s viij^d

Item for falling an oke at dunbridge, and mak-

ing a sawe pytt

x^d

Item for sawing the same into railles, postes,

& studdes v. dayes worcke after viij^d p(er)

diem

vj^s viij^dItem to Robte Turno^r in setting up of the said

pales, postes, and railles ij dayes worcke

the same

xx^d

Item to Crowse for one dayes worcke aboutes

the same

x^dItem to them for vj dayes more after x^d to

eche for everie daye

x^s

22 Item for one c of spike nailles, and 50 bord

nailles

xiijs^sItem to Thos Cowles sent to worcester wthlres to M^r d^r Thorneton and M^r d^r Goldes-

burgh on busines of the Chaptre

ij^s¹ This item is cancelled.

1586

2 Aprilis 1586	Item for setting of stockes in thorchard.....		viiij ^d
12	Item for v sawed bordes bought to make the stable dore	iijs	iiij ^d
	Item to Robert Turno ^r and Crowse for making the said dore		xx ^d
	Item to Crowse more for one dayes worcke		x ^d
26 Febru- arij	Item two Carpenters Turno ^r and Crowse for flooring, and layeing the bordes over the newe kytching and boulting howse after viij ^d per diem		xv ^s
	Suma huius pagine	iiij ^{ll} 3. 6. 5	vjs ^s v ^d
Page 13			
	1586		
9 March	Item for bord nayles		iiij ^d
	Item for yron hookes to hang on meate in the larder howse		ij ^d
	Item yron hookes for the clocke		ij ^d
14 Aprilis	Item to Hoppley and one other for sawing of the Elmes aforesaid into yoistes Beames &c	v ^s	
30	Item more to them for sawing	vjs ^s	iiij ^d
7 Maij	Item to william Grundye, and Edw. Parker masons and Tylers for 4000 of tyles stones after viij ^s the thousand	xxxij ^s	iiij ^d
	Item to them besides to drinke		
	Item to John Budd for digging, and making a well for the Brethern	x ^s	
25	Item to Robte Turno ^r for hewing, and squaring two oke trees in Teddiswood, conteyning xi tunne of tymber, and digging two pittes for the sawyers	vij ^s	viiij ^d
26	Item for exchanng of the Clocke in the Chappell	xx ^s	
29	Item by Robte Turno ^r to the sawyers in Teddiswoodd in parte of payment for sawing of bordes	vjs ^s	viiij ^d
4 Junij	Item for xv busselles of lyme out of the Forest at vj ^d the bz	vij ^s	vj ^d
	Item geven to bringer in rewarde		iiij ^d
	Item to the Masons for takeing downe the Chymneis in the parlor, and the chamber over the p(ar)lor erecting of the same a newe for two fyers	xxx ^s	
	Item a new loke to the malte milhowse		xx ^d
	Item for iiij bz of hearelyme		xij ^d
	Item for v bz of forest lyme	ij ^s	vj ^d
10 Trees bought in ding- wood p(ar)ke	Item for v tymber trees out of dingwoodd p(ar)ke	xxxiijs ^s	iiij ^d
	Item for sawing the same in to loades		xx ^d
	Item for digging stones to the Masons for the chymneyes ix dayes	vjs ^s	

11	Item for iiij ^{ll} of redd leade to dresse the said chymnies		xij ^d
12	Item for 2000 lathe nayles bought at the fayre	ij ^s	vj ^d
	Summa huius pagine	viiij ^{ll} 8 ^{ll}	xvjs ^s 16 ^s
Page 14			
	1586		
Junij 21	Item for 150 borde nayles also.....		vij ^d
	Item for bricke	vjs ^s	
	Item to Robte Turno ^r for removing the Mylhowse and putting in new silles, reparing, studding and lathing both there, and the chambers nexte the garden		xl ^s
Julij 8	Item bargayned with Grundy the Mason for coynng the sylles of the said chambers and making a sincke, to conveygh the rayne water from the garden and stable		xij ^s
14	Item to John Bund for paving aboutes the well, and making a gutter to conveygh the watre from the howses of the brothers		ij ^s
17	Item agreed with him of great to daubbe and claie the walles of the deyhrowse and chambers next the garden	iijs ^s	iiij ^d
	Item to Robert Turno ^r and two other with him for squaring of tymber, hewing of lathes, and studdes for the walles of the said milhowse and Chambers	v ^s	
21	Item for nayles to sett up the pales at the end of the back howse		v ^d
13 Septemb	Item for ij lockes and keyes for the newe cupbordes sett in to the wall in the p(ar)lor and chamber over the p(ar)lor		xviiij ^d
	Item to a yoigner for making the same cupbordes		xij ^d
15	Item to Tho Hall glasier for solder, cane leade and setting of xx ^{ll} foote of glasse in the chamb ^r at the hall end.....	v ^s	
	Item nayles		iiij ^d
	Item for viij bz of heare lyme	ij ^s	
24	Item to Turno ^r for iij dayes worcke in squaring the tymber to the make a newe oxe howse at the north end of the barn and layeng in a syll on the south end of the said barne	iijs ^s	iiij ^d
	Summa huius pagine	iiij ^{ll} 3	xviijs ^s 18 5
Page 15			
	1586		
	Item for a locke keye and staple to the chamber over the deye howse		viiij ^d
	Item for a keye where the cheese lyeth		iiij ^d
	Summa	xj ^d	

l. s. d.
19 - 11 - 10

Summa tot^{is} o xix^{li} xj^s x^d ultra xl^s allocat pro
expensis visitationis. Et sic in toto o-xxj^{li} xj^s x^d
Et sic summa Solut, et exposit
excedit summa Receptor hoc Anno xj^{li} viij^s x^d

Jo Watkins
Edw Threlkeld

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Anno domini

1587

The Accompte of Edward Cowper clerke warden or M^r of the
Hospitall of Ledbury in the Countie of Heref belonginge to the
Deane and Chaptor^r of the Cathedrall Church of Heref of and for
all his charge and Receipt of Rents to the said Hospitall apperteyn-
ing from, and after the feast of St Michael tharchangel in the
yeare of our Lord God 1586 in the xxvijth yeare of the Raigne of
the Raigne of (sic) our soveraigne Ladye Elizabeth Queene, untill
the said feast inclusive Anno domini 1587 dne Rne vicesimo
nono pro uno Anno integro

Recept

Inp(ri)mis receyved the Rentes of the said
Hospitall due at the feaste of the
Annunciacion of the blessed virgyn sct
Marie 1587 Elizabeth R^{ne} xxix^{no} for the
first half yeare

Summa xlvij^{li} xv^s

Item more receyved of the Rents of the said
Hospitall due at the feast of St Michael
tharchangel 1587 Regnique R^{ne} xxix^{no}
for the last half yeare

Summa xlvij^{li} xv^s

Item receyved of free Rents in Ledbury
aforesaid, Eastnor and weston wthin the
said Cowntie of Hereford due at the feast
of St Michael aforesaid onelie

xix^s ij^dob

Item receyved of Customarie and free Rentes
wth in the Bearow in the Countie of
Worcestre due at the said feast of St
Michael yearelye

xxvi^s v^dob

Summa xlvj^s j^d

Summa totalis overis
et Recept.....

Lxxxxix^{li} xvj^s j^d

whereof

Exonerations, solutions and paymentes ordynarie
sithence the first daye of October 1586

Solut. et
Allocat.

Inp(ri)mis to be allowed for the stypendes of
the warden and M^r Brothers, and Systems
of the said Hospitall due at the feastes of the
Annunciacion and St Michael aforesaid
by equall porcons for one whole yeare

Lxxx^{li}

Summa Lxxx^{li}

Item to be allowed of Reprises for Pensions,
Procurations, cheife rents outrentes and
commen fynes yssuynge yearelye out of the
Charge and Receipt aforesaid, due at the
said feaste of St Michael tharchangel
1587

ix^{li} xiiij^s j^d

Summa allocat
predict

Lxxxix^{li} xiiij^s j^d

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Et remanent ad huc de predicta onere et
Recept clare

x^{li} iij^s

Initium Annj sexti 1586

whereof

Elizabethae R^{ne} 28^{vo} In charges reparacons, and other extraordinarie
expences bestowed aswell uppon the Capitall or Mansion
howse, as also on other necessarie howses belonging
to the said Hospitall sync the last daye of September
1586, viz

October 1586

Octobris

Inp(ri)mis to be allowed for the dyett of M^r
Dean wth others of his Brethern comyng to
visitt the said hospitall for the yeare
1586

x^{li}

16^{die}

Item paid to Robert Turno^r the Carpenter
for xiiij dayes worke in makeing a newe
sheere at the Northend of the barne to tye
thoxen in

iiij^s viij^d

Item to John Bracie workeing wth the said
Turno^r xj dayes

iiij^s viij^d

Item for their dyett soe many dayes after
vj^d to eche for the daye

xij^s vj^d

Item for an yron Casement in the Chamber at
the east end of the hall over the Larder
howse

xviij^d

Item for mending three lockes, for the Chappell
doore, Buttrie, and Larder howse

vj^d

Item for a locke, keye and staple to the
maydens chamber

viiij^d

Item for making a keye to the cheese
lofte

iiij^d

Item for sawing of vj^d after xv^d the C

vij^s vi^d

20

Item for parietting the deyhowse and s(er)-
vauntes chamber

iiij^s

Item for an hundred of bricke to make newe
backes for the chymneys in the p(ar)lo^r,
and chamber over the p(ar)lo^r

ij^s

21

Item mor to the said Carpenter v dayes worke
iiij^s iiij^d aboutes the Shere aforesaid, and
for their dyett

viiij^s iiij^d

23

Item for falling, squaring, digging the pytt,
and sawinge an Elme upon Chrofer
Mathowes ground at Kempley

xxj^s x^d

29

Item to the Smythe for two yron grates for
the shackes to convey the rayne water that
passeth throughe the stable towards the
horse poole

ij^s

Item for hinges and hookes to the newe
shere

vj^d

5. 9. 11

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November 1586

Novembris 1586

5^{to} die

Item to the sawyers

xviij^d

7^{mo}

Item to Robert Turno^r for 4 dayes worke

iiij^s viij^d

14

Item to the Masons

iiij^s

Item to the sawyers

ij^s ij^d

Item to Robert Turno^r for iiij dayes worke

xvj^d

15

Item to the Masons for p(ar)ietting

xij^d

r

19	Item to the Masons for one dayes worke	viiij ^d	
22	Item to the same masons for p(ar)ietting	xx ^d	
24	Item to a Tyler for mending the Almehowes	iiijs	
	Item for Barne for the dole	viiij ^d	
29	Item to the Smyth for hookes and hinges	ij ^s	
	20. 8		
	Summa - xx ^s viij ^d		

December 1586

Decembris 1586			
20 die	Item to Grundy the Mason for mending the gutter in the kytching, makeing the backes in the p(ar)lor and chamber aforesaid.....	xix ^d	
	Item for two stocke lockes	xxij ^d	
21 ^{mo}	Item for xxij bz of hearelyme, and ij bz of heare at iij ^d the bz.....	vjs	
	Item for viij bz more of hearelyme	ij ^s	
30	Item for bordenayles.....	viiij ^d	
	Item to Robte Crowse for layeng on youstes, and bording the sollar over the little buttrie nexte to the p(ar)lor one dayes worke	x ^d	
	Item to John Pargetter for parietting over the said buttrie, and the decayed walles of the dovehowse v dayes, w th his dyett	iiijs	ij ^d
	17.1		
	Summa xvij ^s j ^d		

Februarie 1586

February 1586			
mo			
7 die	Item for bricke stones to putt in the bottome of an oven	viiij ^d	
	Item for mending the clocke	vj ^d	
	Item for hookes, and hinges for doore	vj ^d	
	Item for a keye	ijj ^d	
mo	Item for a staple, locke and keye to the utter doore next the streete out of the brothers logings.....	xij ^d	
17	Item for ij bz of hearelyme bestowed in setting up the furnace	vj ^d	
	Item geaven to Stringer one of the future brothers	x ^s	
	vert fol		

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February 1586

February 1586			
19 ^o die	Item to one that made trenches to conveighe awaie the waters out of the Moorishe groundes meadowes and pastures besides his dyett	iiijs	vj ^d
	Item to a Carpenter for twoe dayes worcke aboutes the making of a wall on the backe of the furnace besides his dyett	viiij ^d	
	Item for nayles	iiij ^d	
	Item for digging of stones to undercoyne the mustmyll howse	xij ^d	
	Item more for nayles	ij ^d	
	20 ^s		
	Summa - xx ^s		

April 1587

Aprilis 1587

29 ^{ao} die	Item for Sawing two peeces of tymber bought of M ^r Vicare to make ioystes and other tymber in the galleries	iiijs	viiij ^d
	Item to Robte Turno ^r and his man Carpenteres	ij ^s	
	6.8		
	Summa vjs viij ^d		

Maye 1587

Maij 1587

13 ^o die	Item to the sawyers	ij ^s	viiij ^d
	Item for bordenayles, and hatch nayles		iiiij ^d
	Item to Robert Turno ^r for xiiij dayes worcke on the two galleries after v ^d the daye v ^s v ^d and his dyett	x ^s	x ^d
	Item a hundred and fyftie spikenayles		xvj ^d
	Item for sawinge of 400 after xv ^d	v ^s	
17.20	Item for xiiij bz of lyme	v ^s	x ^d
	Item to Robte Crowse carpenter for iij dayes worke	ij ^s	vj ^d
	Item to Grundye for dawbing and sielinge the gallerye in parte of payment	iiijs	
	32-6		
	Summa xxxij ^s vj ^d		

June 1587

Junij 1587

1 ^o die	Item more to Grundey upon his taske	ij ^s	
	Item for 1000 Lathe nayles		xx ^d
2 ^o	Item to Alforde of Woolhope onwarde of his bargayne of makeinge the Mustmill	iiijs	vj ^d

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June 1587

Junij 1587			
	Item for makeinge a sawepitt at Teddiswoode, and for sawinge of certen Kirffes.....	iiijs	xj ^d
3 ^o die	Item more to Grundye 6 dayes x ^d a daye v ^s and his two men thone x a daye iij dayes ij ^s vj ^d and the other after viij ^d a day, vij dayes iiiij viij ^d	xij ^s	ij ^d
	Item more to Robte Turno ^r for v dayes, and to Crowse vj dayes after v ^d and iiiij ^d a daye besides theire dyett	iiijs	ij ^d
	Item for 200 borde nayles		xij ^d
4	Item the newe grindestone		xij ^d
	Item for 200 stone nayles		viiij ^d
9	Item for lyme	ij ^s	vj ^d
	Item for lathe nayles		x ^d
10	Item more to Grundy for sielinge	iiijs	
	Item for spike nayles		iiiij ^d
14	Item the rest to Alford for fynisshing the Mustmill besides his dyett, and his mans three dayes	xix ^s	iiiij ^d
	Item more to him for squaring a tree in Canwode		x ^d
17	Item to Grundie for makeinge a sincke out of the kytchin, and paving aboute the well ...	vjs	vj ^d
	Item for spike nayles		j ^d
	Item for lathe nayles.....		xij ^d
21	Item to Robert Turno ^r for twoe dayes and a half		xij ^d

22	Item for lathe nayles.....	vjd
24	Item more to Grundy for p(ar)ietting and dawbing at the hall ende	vjs
	Item to Turno ^r for one dayes worcke more on the said galleries	x ^d
	Item to Rober Crowse for one dayes worcke...	x ^d
27	Item for Lyme ij bz	x ^d
	3 - 15 - 6	
	Summa iij ^l xv ^s vjd	

Julij 1587	Julie 1587	
16 ^{to} die	Item to Thomas Meeke for iij loades of paving stones	v ^s vjd
	Item to Grundye more Lent	ij ^s
19	Item to Tho: Hall smythe for two grates of yron thone in the kytchin and thother in the gutter of the well.....	xviiij ^d
	Item for yron to the Mustmyll	xviiij ^d
	Item for dressing the yrons of the clocke	x ^d
	Item for a locke and keye.....	vjd
	11-10	
	Summa xj ^s x ^d	

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	August 1587	
30	Item to Robert Turno ^r for ij dayes worke ...	viiij ^d
	Item for 2500 of lathe nayles bought of George Hunt.....	ij ^s vjd
	Item for 7 bz of hearelyme	xxj ^d
	4-11	
	Summa - iij ^s xj ^d	

	September 1587	
2 ^o die	Item to two Sawyers one daye besides theire dyett	viiij ^d
	Item to Robte Turno ^r for vj daye worke besides diett	ij ^s
	Item for pytche and nayles for a gutter	viiij ^d
17	Item for digging of stones for the kytchin chymney	iijs vjd
	Item to Grundie for going to Hanley to bargayne for bricke, and for half a dayes worcke.....	vij ^d
19	Item to Tho Hall smyth for two casementes to the gallerie and for hinges and a boul to the buttrie hatche dore.....	iijs iiij ^d
20.22 ^o	Item to Grundie onwarde for makeing the chymney in the kytchyn	viijs vjd
	Item to a Tyler for tyling over the Chappell twoe dayes and an half	ij ^s
26	Item to Robte Turno ^r for iij dayes worke besides dyett	xvj ^d
	Item for nayles	ij ^d

23-2
Summa - xxiijs ij^d
Summa om' exposit xvij^l ijs iiij^d Et sic summa
exposit et solution' excedit summa Recept, v^l xix^s iiij^d
perused, seen, and allowed, by
Jo: Watkins
Edw: Threlkeld
Tho: Thornton

Page 23

The Accompte of Edward Cowper clerke warden or M^r of the
Hospitall of Ledbury in the Countie of Heref belonging to the Deane
and Chapter of the Cathedrall Church of Heref, of and for all his
chardge and receipte of Rent to the said Hospitall apperteyninge,
from and after the feaste of St Michael tharchangell in the yeare
of our Lorde God 1587 in the xxixth yeare of the Raigne of our
soveraigne Lady Elizabeth Queene, untill the said feast inclusive
Anno domini 1588 & reg dne Rg^{ne} Tricesimo pro uno Anno integro

Recept

Inprimis receyved the Rentes of the said
Hospitall due at the feaste of the Annunciacon
of the blessed virgyn sct Mary 1588 Elizabeth
Rg^{ne} xxx^{mo} for the first half yeare..... xlviiij^l xv^s
Summa xlviiij^l xv^s
Item more received of the Rentes of the said
Hospitall due at the feaste of St Michael
tharchangell 1588 Regnique dce Rne xxx^{mo}
for the last half yeare xlviiij^l xv^s
Summa xlviiij^l xv^s
Item receyved of free Rentes in Ledbury afore-
said, Eastno^r, & Weston w^{thin} the said
Ccountie of Heref due at the feast of St
Michael aforesaid onelic xix^s ij^d ob
Item receyved of Custum(ar)y and free
Rentes w^{thin} the Bearowe in the Countie
of Worcester due at the said feast of St
Michael yearelie xxvj^s x^d ob
Summa xlvjs j^d

Summa totalis oneris
et Recept Lxxxxix^l xvjs j^d whereof
Exon(er)ations, solutions and paymentes ordynarie
sythence the first daye of October 1587

Solut et
Allocat

Inp(ri)mis to be allowed for the stypendes of
the warden and M^r Brothers and Systers
of the said Hospitall due at the feastes of
the Annunciacon, and St Michael afore
said by equall porcons for one whole yeare Lxxx^l
Summa Lxxx^l

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Item to be allowed of Reprises for Pensions
Procurations, chief rentes, out-rentes, and
common fynes yssuyng yearly out of the
Chardge and Receipte aforesaid due at the
said feaste of St Michael tharchangell 1588 ix^l xiijs j^d
Summa omni allocat
predict Lxxxix^l xiijs j^d

Et remanent adhuc de predicto onere et
Recept clare x^l iij^s
whereof

In charges, reparacons, and other extra-
ordinarie expences bestowed as well upon
the Capitall or Mansison howse, as also on
other necessarie howses belonging to the
said Hospitall synce the laste daye of
September 1587 viz

Inp(ri)mis the Accomptant praieth to be
allowed for the diett, and chardges dis-
bursed at the visitacon of the said Hospitall
in the yeare of our Lord 1587..... x^l
Summa

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October 1587

- 12^{mo} die Inp(ri)mis payed to Grundie the Mason for makeinge and fynishing the Chymney in the Kytchen, ultra xj^s vj^d allowed before as appeareth in the accompte for the same yeare past
- 14^o die Item more to him uppon a new agreem^t for makeinge a dubble chymney and a preevy, and also tylinge over the backe howse as farre as the thatche goeth
- 26^o die (Item delived to Richard Stringer at his admission to the Hospitall)¹

xxx^sliij^s iiij^dvj^s viij^dSumma iiij^s iiij^s iiij^d

Novembris 1587

- 13^o die Item to Tho. Hall glasier for 21 foote et di of glasse fo^r the iij windowes in the ij galleryes, and one windowe in the kytchin at vj^d the foote
- 16^o die (Item more to Grundie on his said taske)¹

x^s vij^dx^s

Timber from
Woolhope

- 25^o Item allowed to Tho Wheeler for sawinge bordes and other tymber in Canon Wodde
- Item for vi bz of Lyme from Newent
- Item horse meate there
- Item for his paynes that went fo^r yt
- Item to Tailo^r the Carpenter for a Windowe in the kytchinge fo^r layinge the ioystes and bordes in the seller over the Kytchin, and makeinge the wall for the newe preevie and rafters
- Item to Christofer Mathowes sonne fo^r bringing the Lyme from Newent

xx^s viij^dij^s v^dj^dvj^dx^s iiij^diiij^dSumma xliij^s xj^d

Decembris 1587

- 1^{mo} die Inp(ri)mis for borde nayles
- Item for lathe nayles and tacke nayles
- Item to Tho : Meeke for stones
- 8^o Item for 150 bord nayles by Lewes
- Item for vij crestes
- 9 Item to Tho Hall Smythe for parte of casem^{tes}
- Item for Hynges, and a boulte to the buttry dore
- Item for x newe yron barres for a grate to the syncke nexte to the stable ende

vj^dij^dxvj^dix^dvj^dviij^dx^dviij^d

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Decembris 1587

- Item for makeinge the yron beame in the kytchin chymney longer for to hange potts on
- Item for gymmalles a payre to the windowe in the Kytchinge
- 10 die Item for taske money in the towne
- 11 Item for spike nayles by Lewes

iiij^diiij^dxij^dij^d¹ Item ruled out.

24

- Item for ij¹ of redd leade desbursed by M^{res} Blunt and iij peckes of glovers shreds, and taxe money xij^d for Tirelles frythe
- Item for rydding awaye the rubble, and stone lefte in the garden of the old wall
- Summa - xl^s vij^d

xxij^dxvij^d

Februarij 1587

- 12^{mo} die Inp(ri)mis for a Rope fo^r the bell in the Chappell boughte at worcestere
- 13 Item for lath nayles and bord nayles
- Item for redde leade j¹
- Summa ij^s v^d

xviij^dij^dviij^d

Maij 1588

- to
4 die Inp(r)mis fo^r twoe seames of Lyme
- Summa xx^d

xx^d

Junij 1588

- 15 die Inp(r)mis fo^r digginge stones to pave the streate against the newe buildinge being in all xij loades
- 16 Item to Tho Brooke of Teddiswode for falling of one of my fower trees there, and for squaring and sawinge the same, somme into bordes, & suume for windowes and other stufte

ij^s vj^dxviij^s vj^d

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Junij 1588

- Item paid to Tho : Hall smythe for a newe locke and keye and staple to the lower dore into the s^rvauntes chambere
- Item for a payre of hookes to the gate into the wodyard
- Summa xxij^s j^d

viij^dv^d

Julij 1588

- 24 die Inp(ri)mis for 300 of stone nayles
- 25 Item for lath nayles 1000
- 29 Item to Robert Crowse and his man for mending the ruffe of the Brothers chambers twoe dayes worke
- Summa iiij^s viij^d

xij^dxviij^dij^s ij^d

Augusti 1588

- 0
3 die Inp(ri)mis fo^r spike nailles
- Item for fower seames of lyme
- 5 Item fo^r ropes to tie on the ladders fo^r the Tylers to stand on over the backe howse
- Item fo^r gatheringe of mosse
- 19 Item fo^r ij plates of yron to fasten the newe windowes in the gallery
- Item to the ioigners fo^r setting up the said windowes
- 21 Item syves fo^r the Masons
- 22 Item 10 bz of heare lyme bought of Edward Farmer
- Item borde nayles

j^diiij^diiij^diiij^diiij^dxij^dx^dij^s vj^dij^d

Item to Grundye in reward after he had finished his task ij^s vj^d
 Item to John Bayley for cleaving of lathes and s(er)ving of Grundie in tyling xij dayes ij^s
 Summa xij^s iiij^d

Septembris 1588

1^o die Inp(ri)mis to Grundie and John Bayly xij^d for rouge casting the porche iiij^s xij^d
 Item for vij C of lathe nayles xij^d

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Septembris, 1588

Item to Edward Farmer for ij bz of heare lyme vj^d
 9^o die Item for 300 of bricke iiij^s viij^d
 Item for wyer to mende the clocke ij^d
 Item for a casem^t to Tho Hall for the Eastende of the Gallery xvj^d
 13 Item to Tho Pewtres for fetching of rent bordes from Easte woodd xij^d
 Item for Crestes to the backe howse xiiij^d
 12-9 Summa xij^s ix^d

9.16.9 reman 6.3^d Summa totalis exposit - xj^{li} xvj^s ix^d Et sic Summa exposit excedit summa recept xiiij^s ix^d
 Perused, seen, and allowed by us Jo: Watkins
 Ex. p(er) me Thomas Stephens deput Audit

Page 29

1589 The Accompte of Mr Edward Cowper clerke warden or Master of the Hospitall of Ledburie belonging to the Deane and Chapter of the Cathedrall Church of Heref and for all his whole Receipte and chardge. And of and for all Exon(er)ations, solutions, and paym^{ts} by the handes of the said Edward Cowper from the feast of St Michael tharchangell in the yeare of our Lorde 1588 Regnique Dne Elizabeth Regine &c Tricesimo untill the said feast Anno domini 1589 Regnique eiusdem domine Regine tricesimo primo. viz pro uno Anno integro

Recept Item receyved in the feastes of the Annunciacon Anno Domini 1589, And of St Michael tharchangell then next following viz tricesimo primo dicte dne Regine for the whole yeares Rentcs, equallie due at the said feastes Lxxxxxviij^{li} x^s

Item receyved in the foresaid feaste of St Michael of free Rentcs and other Rentcs in the parishes of Ledburie, xiiij^s ij^d ob, Eastnor xij^d and Beggars weston iiij^s in the Cowntie of Heref. And of Bearowe in the Cowntie of Worcester, xxvj^s x^d ob, due for the said whole yeare xlvj^s j^d

Summa Reddit Lxxxxix^{li} xvj^s j^dSumma tam Arrerag C^{li} ij^s iiij^d

qi Reddit whereof in

Exonerationcs, solutions and paym^{ts} ordinarie the said yeare as followeth viz

Exonera- Inp(ri)mis to be allowed for the Stypendes pio of the said warden or Maister And of the

Brethern, and Systers for the said whole yeare at the twoe feastes above said paid by equall porconcs. In all togetather Lxxx^{li}
 Item to be allowed for Reprises ysyung out of the Receipte and chardge aforesaid, viz of Pensions Procurations, chief Rentcs, out rentcs and common fynes due at the said feaste of St Michael the Archangell Anno domini 1589 for the yeare past ix^{li} xiiij^s j^d

Summa allocat Lxxxix^{li} xiiij^s j^d
Et ad huc

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Remanent de supradictis Arrerag ij^s et Receptis x^{li} iiij^s whereof in

Extraordinarie exposiccons, and other necessarie expenses chauncing, and growing wthin the said yeare, as followes. viz.

Inp(ri)mis the said Accomptaunt prayeth to be allowede for the expenses of visitacon by Mr Deane, & the Chapter before Michaelmas Anno domini 1588 xli^s

15^o Octobris Item payed to the Sawiers, and Carpenters for sawing and makeing the newe Stayers to the Wardens chamber, and for repaying the walles, makeinge iiij^{er} newe ioyned windowes to the litle Chamber on the west side of the p(ar)lor, flooring, and boording the same. In all xliij^s16^o Item for 300 of boorde nailcs, and 100 of bastard nayles ij^s ij^dItem for di C of midling nayles iiij^dItem more for boorde nailcs i^d

Item to Willm Grundie, iiij^s, and his man John Barston ij^s iiij^d, for iiij^{er} daies worke together in coyninge, and dawbing the sylles, and walles of the said litle chamber and stayers after ix^d and vij^d the daye v^s iiij^d

17^o Item for 300 of lath nayles for the Tyler vj^dItem for an 100 of stone nayles iiij^d

Item to Willm Grundie Tyler for tylinge over the said new stayers and for p(ar)getting of the walles of the said Chamber and stayers iiij^s ij^d

18^o Item to Tho Meeke for 400 of Tyle stones to tyle towardes the same vj^sSumma - iiij^{li} xxiiij^d

Novembris 1588

25^o NovembrisItem to John Bond for digging of stones ij^s

Item to him for paving the streete along the Almshouses x^s

Item for 100 of bricke xvj^d

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Item to Robert Crowse Carpenter for layinge the sollar flowre a newe over the kytchin and makinge a doore and wyndowe in the kytchin ij^s viij^d

Item for nayles iiij^dSumma hujus iiij^{li} xviiij^s ij^d
pagine 3. 18. 2

Decembris 1588

- 22.23.28 Item to W^m Kenderdale for s^rving the processe
uppon those that refused to paye Rent as
well in Berowe, as other places at severall
tymes xxij^d

Januarij

- 8^o Item for spyke nayles to amend the pales
next to the hall doore j^d
Item to John Grundy the Tyler, and his man
for three dayes tyling over the Barne..... xxj^d
Item for lath nayles..... iiij^d
Item for borde nayles to amend places in the
se^rvaunts chamber j^d
Item for lath nayles, boord nayles, and spike
nayles for the ioigners xvij^d
18 Item to william Taylo^r for makeing certen long
nayles for the wainscot; and for hinges,
latches and ketches to the new portall into
the newe stayers in the parlo^r xvij^d
23 Item to Richard Madockes for ij bz of heare
lyme vj^d

februarij 1588

- 5 Item for Candells for the said ioigners in all
at iiij^d le pound xvij^d
Item to Richard Barrett for lodging for the
said ioigners iiij^d
27 Item to Tho: Mayo 25 daies and Richard wodd
30 daies ioigners for wainscoting the parlor
after v^d the daie, besides theire dyettes..... xxij^s xj^d
Item to John Gruundie for scubling, and
holing of 140 tyle stones at the pytt xij^d
Item more for settting (sic) certyne stones in
the parlo^r chymney to save the wainscott
from the fyre iiij^d
Item to Tho: Hall smythe for two barres of
yron for the west windowe in the parlo^r
weighing v^{ll} and j oz wth iiij^e yron pynnes
Md gaven to those that brought home three
loades of tyles stones from Teddiswodd at
Michas..... iij^s

Summa huius pag xxxvj^s ix^d

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February 1588

- Item to John Bond for putting the grates of
yron at the Hospitall gate and mending the
Kytchin floore iiij^d
Item to Tho: Hall smyth for the same grates
..... vj^d
Item for lath nayles for the glasyar iiij^d
Item for a locke and keye for the maydens
Chamber viij^d
Item nayles to putt on the same Locke j^d
Item for lath nayles and borde nayles to
fasten the bordes at thendes of the glasse
wydowes in the p(ar)lor iij^d
Item to John Banckes for a dussen of pannell
..... viij^d

Martij 1588

- 1^o Item to John Barnesley for a pounce of glewe
for the ioigners iiij^d
Item to Willm Taylo^r smyth for a litle payre
of hinges iiij^d

Martij 1589

- 27^o Item to david Goughe for 3000 of tyle stones xxvij^s
29^o Item to Tho: Hall glasier for glassing v
windowes xij^s vj^d
Item lath nayles for the glasyer iij^d

Aprilis 1589

- 2^o Item to Symon Jeoffreyes carpenter in
traveling from Heref to Ledbury to vewe
certen worke to be done over the stable..... xij^d
8 Item to John Skynn(er) tann(er) for a bz et di
of lyme vj^d
Item to John Grundy Mason for one dayes
worke vj^d
Item to Willm. Kenderdale for goeing up to
London to make an Affidavit in the
Exchequere touching the serving of the
proces upon the Tenntes at the Bearowe
in com Wigorn and others wthin the
p(ar)ishe of Ledbury x^s

55 i^dSumma huius pag lv^s j^d

Maij 1589

- 26^o die Item the 26 daye for a bz of lyme to dresse
the chamber where the maydenes doe lye iij^d
27^{mo} Item boorde nayles to mend the sealing of the
same chamber j^d
Item lath nayles for the same j^d

Junij 1589

- 4^o Item for scouring and setting on a locke upon
the chamber doore wthin the p(ar)lor..... iij^d
Item nayles for the same j^d
25^o Item for cleansing the howse of office..... iiij^d

Julij 1589

- 4^{to} Item to John Baylie for p(ar)ietting of certen
Wallis and setting upp shelves for glasses iiij^d
Item to the glasier for twee quarrells of glasse
for the Parlo^r wyndowe iij^d

Augusti 1589

- 9^o die Item boorde nayles to make a shelve in the
buttrie..... j^d
Item to Tho: Reese for a bz of lyme to
dresse the chamber wthin the p(ar)lor iij^d
Item to Grundy for p(ar)ietting the said
chamber iiij^d
28^o Item boorde nayles to mend the pigges coate
and to nayle up certen pales aboute the
howse iiij^d
31^o Item for mending the locke of the buttrie
doore iij^d

Septembris 1589

2 ^o die	Item for spike nayles to mend the frenche wall nexte adioigning to the Chappell	ij ^d
	Item boorde nayles to mend the Church doore	j ^d
3 ^o	Item to Tho: Hall the smythe for a plate of yron for to fasten the french wall next to the kytchen	iiij ^d
	Item nayles for the same	j ^d
3 ^a 4 ^d	Summa huius pagine iij ^s iiij ^d	

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Septembris 1589

	Item lath nayles to nayle lathes upon the dorter howse wyndowe	j ^d
4 ^{to}	Item for ij bz of lyme to p(ar)ietten certen walles about the howse	vij ^d
	Item to John Perkin for iiij ^{er} dayes worke in p(ar)ietting and dawbing certen walles aboutes the howse	xij ^d
5	Item spyke nayles to sett upp shelves in the larder howse	j ^d
	Item to John Grundy the mason for coyning decayed places about the howse	vj ^d
	Item for makeing a trenche to drawe the water from the howse of office	ij ^d
	Item spike nayles and boorde nayles to make a doore for the pigges coate & to mend certen places in the must myll	ij ^d
	Item to Willmm Brooke for cuttinge and squaring of twoe Tuune of Tymber in Teddiswood	ij ^a
	Summa huius pagine iij ^s vij ^d	
	Summa to 11 ^s viij ^{li} xvij ^s xi ^d Sic	
	summa reept excedit exposit xxv ^s j ^d	
	Seen, perused, & allowed by us Jo. Watkins	
	Ex ^d p(er) me Thoma Stephens deput Audit	
	8. 17. 11	4 7

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1589 The Accompte of Mr Edward Cowper clerke warden, or Master of the Hospitall of Ledburie belonging to the Deane, and Chapter of the Cathedral Church of Hereford, of, and for all Receptes, togeather wth all the exonera- tions, discharges, and payments by the said Edward Cowper from the feast of St. Mychaell tharchangell in the yeare of our the Natyvitie of our Lord 1589 Anno Regni dne nre domine Elizabeth Regine &c xxxj^{mo} usq ad idem festu michis Anno dni 1590 doeque dne R^{ae} xxxij^{do} viz pro uno Anno integro

Recept. Reddit, et Firma

Onus

Inp(ri)mis receyved of the Rentcs due in the feastes of the Annunciacon Anno domini 1590 And of St Mychaell tharchangell than next, and immediatlie following, for one whole yeare, ended at the said feast of St Michael accord- ing to the severall Leasses made.

lxxxxvij^{li} x^s

Item receyved of Free Rentcs in Ledburie aforesaid, Eastnor and Weston uppon Fromey wthin the said Countie of Heref due at the feast of St Michael aforesaid
 Item receyved of Customarie, and free Rentcs wthin Bearowe in the Countie of Worcestre due at the said feast of St Mychaell for the whole yeare then ending

xix^s ij^dobxxvj^s x^dob

Suma totalis oneris

ac Recept predict

xxxxix^{li} xvj^s j^d

Exoneratio

Solutions, and payments ordinarie sithence the first of Octobre Anno domini 1589, abovesaid

Inp(ri)mis the said warden, or Master asketh to be allowed of lxxx^{li} paid, & allowed, for the stipendes due to the said Warden, & Master, to the Brothers & Systers of the said Hospitall at the feastes of the Annunciacon of the blessed virgyn in the yeare of our Lord 1590, and of St Mychaell tharchangell abovesaid by equall portions, for one yeare ending at the same feast of St Mychaell

lxxx^{li}Suma lxxx^{li}

Item to be allowed of Repryses for Pensions, Procurations, chief rentcs, out-rentcs, & comon fines yssuing out of the Charge, & Receipt aforesaid, due at the said feast of St Michael last past viz 1590

ix^{li}xiiij^sj^dSumma ix^{li} xiiij^s j^dSumma omni solut, et allocat p(re)dict lxxx^{li} xiiij^s j^dEt adhuc remanent de dict onere, et Recept clare x^{li} iij^s

Unde

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1589.

In Reparacions, and other extraordinarie charges bestowed uppon the Capitall, or Mansion howse of the said Hospitall, and other the howses belonging to the same sythence the feast of St Mychaell the Archangell 1589 aforesaid viz

Octobre

Inp(ri)mis the said Accomptant prayeth to be allowed towards the expenses in the visitacon holden by the Dean and Chaptre at the said Hospitall. Anno domini 1589

x^{li}

17

Item he praieth to be allowed for charges laied out in making & erecting of a new Wayne howse; viz ix^s viij^d paid to three Carpenters for ix daies worke ech of them, and to two of them for one daie more, after iiij^d a daye to everye of them, besides theire meate, and drinke

ix^sviij^d

15

Item to two Sawyers for sawing tenne daies of tymbre to make the said waye howse, besides meate & drinke

iiij^svij^d

Item to John Perkyns for dawbing xxx^{li} square panes of the frenche Wall over against the Chappell

xiiij^d

Item to Willmm Cooke for one dayes worke in digging the pites or hoolles to sett the postes of the said wayne howse in besides meate, & drinke

ij^d

22	Item to Walter Whooper for two daies work, in cleaving of Lathes for the said Waine-howse	xvj ^d
	Item paid for vj ^o of Lathe Nayles to nayle on the Lathes on the said wayne howse	xij ^d
	Item to widowe Gromadge for drawing of vij thrave of Strawe to cover the said wayne howse, after j ^d ob the thrave, besides her meate, and drinke	x ^d ob
	Item to Thomas Bishopp for iiij ^s dayes worke in thatching of the said waine howse, besides his meate & drinke	xv ^d
	Item to Richard Madockes for one busshell of hearelyme	iiij ^d ob
27	Item to John Grundie, and his man for one daies worke in tyling, & Repairing the Mansion howse	xvj ^d
Novembre	Item more to the said Grundie for vj dayes worke in tyling	ix ^s
	Item for stone nayles, iij ^d & lath nayles iij ^d	vj ^d
	Item to John Perkins more for pargetting two daies aboutes the maulte kill	xiiij ^d
	Item to Richard Madockes fo ^r three bz of Lyme	x ^d ob
27	Item to Willm Meeke for iiij bz of heare lyme	xij ^d
	Summa iij ^h xiiij ^s iij ^d ob	
	33. 3. ob.	
Page 37		
Decembris	Item paid to Tho : Hall smyth a lock & key for the dorter howse doore	ix ^d
23 ^o	Item to John Brooke for squaring the elme for the stable	iiij ^d
	Item for spyke nayles, mydling nayles, boord nayles, stone nayles, and lathe nayles for the use of the Carpenters, ioigners, Tylers and glasiars	vj ^s vj ^d
Februarij	Item to James Stafforde for xij ^o of quicke to quicke sett the garden hedges and other hedges aboutes the Orchyarde	ij ^s
7 ^{mo}	Item to widowe Taylo ^r for drawing strawe to the Thatcher	vj ^d
17	Item to twoe men of Heref for graffting certen trees and stockes in grove filde	viiij ^s
Martij	Item to John Broke for one dayes worke in altering and removinge a doore and mending certen decayed places aboutes the Almehowses	iiij ^d
13	Item to Tho Byspe for one dayes worke in thatching over the myll howse	viiij ^d
Aprilis	Item to Tho Byspe for one dayes worke in thatching over the myll howse	viiij ^d
16	Item for a locke and keye for the gardner sic doore	viiij ^d
Maij	Item to John Grundy and his man for two dayes worke in tyling over the pigeon howse	ij ^s viij ^d
2	Item a crest for the said pigeon howse	j ^d
20	Item a new keye for the stable doore	iiij ^d
Junij	Item to Symon Jeoffreys and Tho : Rogers	
12	Item for mending the ruffe of the said stable being redye to fall	vj ^s viij ^d
27	Item to John Grundy and his man for one dayes worke et di, in tyling over the said stable	xxiiij ^d

	Item to John Hyde and David Morgan for v dayes worke in sawing tymber, after viij ^d the daye to eche of them	vj ^s viij ^d
	Summa ... xxxviiij ^s j ^d	
Page 38		
Junij	Item to Tho : Mayo and his man for squaring v Tunnes of tymber in East wodde	iiij ^s viij ^d
30	Item to the same for saweing five loade kerffes 5s and for cutting vj kerffes 2s twart over beside hyre of twoe men more in Estwodd one day 10d	viiij ^s x ^d
	Item for carriage of the said tymber to the Hospitall w th theire diett that cam w th the teemes	x ^s iiij ^d
Julij	Item to fower yonge men w ^{ch} brought boordes from Wolhope to the Hospitall	viiij ^d
1 ^o	Item to Tho : Mayo and his sonne for one dayes worke in cleaving pale	xvj ^d
8	Item to Anthony Browne and David Morgan for vj dayes worke a peece in sawinge tymber	ix ^s ix ^d
15	Item to John Baylie for three dayes worke in setting up the deskes in the Study	ij ^s
	Item to Tho : Hall the smythe for makinge a newe hinge to the cubbord in the Kytchen	ij ^d
18	Item to John Grundy for fower dayes worke and to his man, in paveing the Courte w th stone and in p(ar)ietting the howse w th in	v ^s iiij ^d
	Item to Robert Crowse and his twoe men for fower dayes worke a peece in lofting the chamber over the larder howse, after viij ^d a daye to eche of them	viiij ^s
24	Item for iiij ^{er} barres of yron for a litle windowe in the p(ar)lor	xxj ^d
	Item to Thomas Mayo ioigner for vij dayes worke and to his man	vj ^s viij ^d
28	Item to Richard Madockes for iiij ^{er} bz of lyme	xiiij ^d
	Summ Lviiij ^s viij ^d	
Page 39		
	1590	
Augusti	Item to David Lone and one other carpenters for workeinge three weekes in makinge three windowes viz one greater in the p(ar)lor one in the chamber over the p(ar)lor, and the thirde in the southend of the chamber at theast ende of the howse & flooring or layeing gystes over the chamber at the Northend by the stayers heade	xxxiiij ^s iiij ^d
15	Item for a dussen of pannell boordes	viiij ^d
	Item for makinge of three casem ^{tes}	v ^s
	Item for Lj ^h of yron to make xiiij barres to the greate windowe in the parlo ^r at j ^d ob the li ...	vj ^s iiij ^d
	Item for makinge the same barres at ij ^d a peece	ij ^s iiij ^d
25	Item to twoe men for saweing certen Gystes ...	iiij ^d
	Item to Willm Grundy and his man for one dayes worke in tyling the dwelling howse and p(ar)ietting	xvj ^d
	Item to Richard Madockes for twoe bz of lyme	vij ^d

Septembris

3

Itm to Tho: Hall for making twoe casem^{tes}
of yoron for the windowe over the larder
howse

xiiij^d

Itm vij panes of newe glasse in the parlo^r
every pane conteynyng twoe footes, and
an half, abating a q^uarter of an ynche, In the
whole xvij footes & di abatinge twoe
ynches

vjs^a iiijd^a

Itm for setting upp vij panes of olde glasse
in the same wyndowe of the same lengthe
and bredthe as the newe was after ij^d
ob the foote

iijs^a vij^d

Itm in an other windowe for setting up one
pane of old glasse conteynyng two foote
and fower ynches after the rate of ij^d ob
the foote

v^dSumma — iijs^a ijs^a iiijd^aSumma to^{lis} exposit xj^{li} xij^s iiijd^a ob Etsic summa exposit excedit recept xxix^s iiij ob

Seen, perused, exaied & allowed by us

Jo. Watkins

Exd p(er) me Thoma Stephens deput Audit

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7 et 8

The Accompte of Mr Edward Cowper clerke, warden or M^r of the
Hospitall of Ledburie, belonging to the Dean and Chaptre of
the Cathedrall Church of Heref of, and for all Receiptes to-
geather wth all the exonerations, dischargdes, and payments,
by the said Edward Cowper from the feaste of St Michaell
tharchangell in the yeare of our Lord God 1590, Anno Rni dne
nre Elizabethhe Regine etc xxxij^{do} usq ad idem festum sci Michis
Anno domini 1592 dceque dne R^{ns} Tricesimo Quarto, viz pro
duobus Annis integro

Recept Reddit et Firmar 1592

Onus

Inprimis receyved of the Rentes due in the
feastes of the Annunciacon Anno domini
1591 and of St Michaell the Archangell then
nexte, and ymediatellie followinge for one
whole yeare ended at the said feaste of St
Michaell according to the severall Leases
made

lxxxxvij^{li} x^s

Item rec of Free Rentes in Ledburie aforesaid,
Eastnor & Weston upon Fromey wthin the
said Countie of Heref due at the feaste
of St Michaell aforesaid

xix^s ij^dob

Item rec of Customarie and free Rentes
wthin the Bearowe in the countie of
Worcester, due at the said feaste of St
Michaell for the whole yeare then ending

xxvj^s x^dobSuma lxxxxix^{li} .xvj^s .jd.

Recept Reddit et Firmare 1592

Item rec of the Rentes due in the feastes
of thanunciacon anno domini 1592 and of
St Michaell the Archangell then nexte and
ymediately following for one whole year
ended at the said feaste of St Michaell
according to the severall Leases made

lxxxxvij^{li} x^s

Item rec of Free Rentes in Ledbury aforesaid,
Eastnor and Weston upon Fromey wthin the
said Countie of Heref due at the feaste
of St Michaell aforesaid

xix^s ij^d ob

Item rec of Customorie and free Rentes wthin
the Bearowe in the countie of Worcester
due at the said feaste of St Michaell for
the whole yeare then endinge

xxvj^s x^d obSumma lxxxxix^{li} .xvj^s .jdSumma to^{lis} oneris

ac Recept pro duobus

Annis predict

Clxxxxix^{li} xij^s ij^d

Receptiones

extra-

ordinarie

Item receyved by M^r Thomas Willis of two
Tenautes of Bearowe in the Countie of
Worcestre for a fine of certen lands graunted
to them, & yet remayning in the hands of
the said M^r Wyllys

v^{li} non recepi

orlesm

Item for an Heriett at the deceasse of Anne
Powell widowe

xxvj^s viij^d

Kempley

Item for an Heriett at the deceasse of
Chropher Phippes al Mathewes

xxvj^s viij^d

Item for an Heriett at the deceasse of John
Wilse

x^sSumma viij^{li} iij^s iiijd^aSumma totius oner, et Recept ... CCvij^{li} .xvj^s .jd

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1591

Exoneratio

Solutions, and paym^{ts} ordinarie sythence
the firste of Octobre Anno domini 1591
aforesaid

Inprimis the said M^r or Warden askethe to
be allowed for lxxx^{li} paied, and allowed for
the stypends due to the said M^r or Warden,
to the Brothers and Systers of the said
Hospitall, at the feastes of thannunciacon
of the blessed virgyn in the yeare of our
Lorde 1591 and of St Michaell the Arch-
angell, by equall portions, for one yeare
ending at the same feaste of St Michaell

lxxx^{li}Summa lxxx^{li}

Item to be allowed of Reprises, for Pensions,
Procurations, chieffe rentes, out-rentes and
comon fines yssuyinge out of the charge
and receipts aforesaid due at the said Feaste
of St Michaell Anno 1591

ix^{li} xiijs^a jdSumma ix^{li} xiijs^a jd

1592

Solutions and paym^{ts} ordinarie sythence the
firste of October Anno domini 1592 aforesaid

Exonera-

tio

1592

Inp(ri)mis the said Warden, or M^r, askethe to
be allowed for lxxx^{li} paied, and allowed
for the stypendes due to the said Warden
And M^r to the Brothers and Systers, of the
said Hospitall, at the feastes of the Annun-
ciacon of the blessed virgyn, in the yeare of
our Lord 1592 and of St Michaell the Arch-
angell, by equall portions, for one yeare
endinge at the same feaste of St Michaell

lxxx^{li}Summa lxxx^{li}

Item to be allowed of Reprises for Pensions,
Procurations, cheefe rentes, out rentes, and
comon fines, yssuyng out of the charges and
receipte aforesaid, due at the said Feaste
of S^t Michael Anno domini 1592

ix^{li} xiijs^s ja
Summa ix^{li} xiijs^s ja

Summa omnn solut et
allocat predict Clxxix^{li} vjs^s ij^d
Et ad huc remanent de dict onere et Recept clare xx^{li} vjs^s
Recept predict pro fine, & heriott & in altera ultra
pagina

unde

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1591 1592

In reparacons, and other extraordinarie
chardges bestowed uppon the Capitall, or
Mansion howse of the said Hospitall, and
other the howses belonging to the same,
sythence the feaste of St Michael the
Archangell Anno domini 1590 ad usque idem
festum Anno domini 1592, viz pro duobus
Annis usque integris

Inp(ri)mis the said Accomptant prayethe
to be allowed towards thexpenses in the
visitacons holden by the Dean and Chaptre
at the said Hospitall, Anno domini 1591
et Anno domini 1592.....

Novem-
bris 1590
16

Item paid to M^r Ravenhill for xij pales to
make windowes in the chamber on the
southe side of the Mansion howse

xl^sxviijs^d

Item to John Baylie for three dayes worke
in erecting or makeing of a saddell howse....

iijs^s

Item nayles for the same

vjd^d

Item a C of boordes for the same

iijs^sviijs^d

Item a locke keye, hinges, staple, and for
setting the same furniture upon the doore

xvjd^d

23

Item nayles for the ioigners

iijs^s

Item to Tho: Hall the plumber for setting
olde glasse into newe ledd, being v dayes
worke, the said Hall findinge ledd

xs^sij^d

Item for mending the buttrie windowes

xij^d

January
23^o

Item a keye for the larder howse doore

iijs^s

Item to Roger Bayley for three dayes worke in
making a newe Cratche at the wayne howse

iijs^s

Item nayles for the same

iijs^s

Item a locke for the doore at the stayes foote
in the hall

viijs^d

Februarij

Item to John Grundy and his man, for three
dayes worke in makeing the rouffe of the
Oven and for mending the kyll after xij^d
a daye for him self and x^d his man.....

vs^svjd^d

Item a C of Hatch nayles for the kylling.....

iijs^siijs^d

Martij
1591

Item to Willmm Taylor smyth for two payer
of portall hinges, iij payer of ketches and
latches and ij payer of hookes and hinges...

vs^s

15
Aprilis

Item to Symon Hall for a newe casem^t

xviijs^d

Item to Robert Crowse and John Staple
carpenters for three dayes worke in paling
upon the north and south sides of the
mansion howse

vjs^s

Itm CC of mydling nayles for the same.....
Itm to Anthony Browne and David Morgan for
twoe dayes worke in sawing postes and rayles

xijs^diijs^s

Summa xlix^s ultra xi^s
pro expenses visitacion predict In toto iijs^{li} ix^s

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1591

Maij 1591 Itm paid to Robte Crowse, John Brooke, and
John Staple carpenters for one dayes
worke in setting upp weather bordes aboutes
the mansion howse

iijs^s

7

Itm CC of mydling nayles for the same.....
Itm a locke, keye, and staple to the garden
doore

xiijs^dxijs^d

21

Itm to John Grundie mason for v dayes worke
in beating or Tying the mansion howses...

vs^s

Itm lathe nayles and stonne nayles for the same

ij^d

Itm to Tho: Hall plu(m)ber for casting
CCxvij^l of leade to make gutters for the
Almeshowes and gutter over the Studie
for the said ledd.....

ij^dvijs^s

Junij

Itm to Anthony Browne and David Morgan for
ij dayes worke in sawing tymber for the
Parlo^r and buttery

iijs^s

Itm to John Grundie and his man for xvj
dayes worke in tyling and p(ar)ietting the
howses and Barne

xviijs^s viijs^d

Itm spike nayles, lathe nayles and stonne
nayles for the Tylers

xxij^d

21

Itm to Richard Maddockes for xv bz of lyme

iijs^s

Julij

Itm to John Bankes for pannell

vjd^d

Itm to Tho: Mayo and his man ioigners for
xviij dayes worke in translating the portall
into the p(ar)lor & the doore into the buttery,
makeing of twoe dressers and for makeing
a newe windowe and the newe stayers into
the chambers at theast ende of the hall.....

xxiijs^sxs^s

Itm more for three portalls

ij^d

Itm glue

Itm to Willm Taylor smythe for a payer of
hinges for the dressers, buttery doore
p(ar)lor doore and for a keye for the
p(ar)lor doore.....

xvjd^d

Itm mydling nayles, spike nayles, hatch nayles
busshell nayles, boorde nayles and lath
nayles for the said worke

ijs^s

Augusti

Itm to John Grundie for fower dayes worke
in tyling over the Barne

iijs^s

Itm iij Crestes

iijs^d

Itm ij bz of lyme

vjd^d

Itm to Foorde and his twoe men for vj dayes
worke in makeing the three ioigned wyn-
dowes in the hall after xij^d a daye himself
and x^d his men

xvjs^svjs^s

Itm three casem^{ts} for the Hall.....

xx^s

Itm for yron Barres for the said windowes ...

Itm borde nayles nad spike nayles

iijs^d

Summa huins
pagine

vjl xjs^s vd

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Septem- Item to Tho: Hall plu(m)ber for settinge
bris of xxxij footes of olde glasse into newe
1591 ledd for the hall windowes he finding ledd
after ij^d ob the foote
Itm CCC of lath nayles for the glasier
Itm borde nayles
Novem- Item to Roberte Crowse for v dayes worke
bris in translating the hall doore.....
Itm spike nayles for the same
Itm to John Grundy for fower dayes worke
in repairing or tyling over the Brothers
lodginges.....

1592

february Item to Anthony Browne and David Morgan
1591 for three dayes worke in sawing tymber
to repare the pigeon howse and other
necessaries aboutes the mansion howse
being in the whole
Itm for 600 of quickesett
Itm to Tho: Mayeos for iiij^{er} dayes worke ...
Itm nayles for the ioigner.....
Aprilis Itm to John Grundye the masson for twoe
1592 dayes worke over the Brothers chambers...
Itm iiij^{er} bz of lyme
Junij Itm three Tuune of Cooles to burne lyme
Itm to a man for burning the said lyme.....
16 Itm to James Stafford and Manuell Podmer
for castinge the poole and for digging and
clensing the howse of office for the poore
people
Julij Itm to Tho: Rogers, David Lone for x dayes
worke in reparyng or renewing the one half
of the pigeon howse
Item to Tho: Cooke 7^s 6^d p(ar)ietter and his
twoe men 12^s for ix dayes worke in cleaving
lathe, pannell, and for renewing the holes ...
Itm to Will^m Hill for his paynes
Itm iiij^c et di C of boorde nayles for the same
Itm spike nayles for the same
Itm 1000 of lath nayles for the same
Itm to John Grundye and his man for iiij^{er}
dayes worke in tyling and p(ar)ietting thone
half the said pigeon howse
Itm stonne nayles and lathe nayles for the
same
Itm xj Crestes for the pigeon howse
Itm to Richard Madockes for iiij^{er} bz of lyme

Summa solut
huius pagine

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Augusti Inp(ri)mis paid to John Grundy and his man
1592 for iiij^{er} dayes worke in diging of tyle.....
Itm to James Stafford and Manuell Podmer
for iiij^{er} dayes worke in carring the said
stonnes from the pitt

Summa xj^s iiij^d
Summa to^{lis}
omn' solut predict xvj^{li} xiiij^d ultra xi^s

v^s x^d obviiij^d
i^diiij^s x^d
viiij obiiij^s iiij^dxxv^s x^dxiiij^diiij^s viij^dij^s xij^dx^s viij^dvj^s viij^dviij^s x^dxx^sxix^s vj^diiij^s iiij^dij^s v^dxx^dvj^s viij^dvj^dxj^dxij^dvj^{li} ix^s iiij^dvj^sv^s iiij^d

Allocat pro expenses visitacon predict Quibus addit
Summa omn' expositorum erit ... xviiij^{li} xiiij^d Et sic recept
excedunt Sum' exposit, et solut xliij^s xj^d

Seen p(er)used exaied and allowed by us

Ja: Watkins

Ex^d p(er) Tho: Stephens deputat

Georgij Scudamore gen Auditor

Pages 47 and 48 (blank)

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1592

1593

The Accompte of Mr Edward Cowper Clerke warden or M^r of the
Hospitall of Ledbury belonging to the Dean and Chapter of the
Cathedrall Church of Heref, of and for all receipts, Together
wth all the exonerations, dischargdes and paym^{ts} by the said
Edward Cowper, from the feaste of St Michael tharchangell in
the yeare of the Nativitie of our Lord 1592, Anno regni dne nre
Eliza^b nu' Regine &c Tricesimo quarto usque ad idem Festum
sc michis Anno domini 1593 dne Regine Tricesimo Quinto viz
pro uno Anno integro

Receipt Reddit et Firmaruu

Onus

Inprimus receyved of the Rentes due in the
Feastes of the Annunciacon 1593, and of St
Michael tharchangell, then next and
ymediatelie followinge for one whole yeare
ended at the said Feaste of St Michael
accordinge to the sev(er)all Leasses made Lxxxxviij^{li} x^s

Item receyved of free Rentes in Ledbury
aforesaid, Eastnor, and Weston upon
Fromey w^{thin} the said Countie of Heref
due at the feaste of St Michael aforesaid
Item receyved of Custumary and free Rentes
w^{thin} the Bearowe, in the countie of
Worcester due at the said feaste of St
Michael for the whole yeare then endinge

xix^s ij^d obxxv^s x^d obSumma to^{lis} onerisac Recept predict Lxxxxix^{li} xvj^s j^d

Exoneratio Solutions, and paymentes ordinarie sythence
the firste of October Anno domini 1592
above said

Inprimis the said warden or M^r askethe to be
allowed of Lxxx^{li} paied and allowed for
stipends due to the said warden and M^r to the
Brothers and Systers of the said Hospitall,
at the Feastes of the Annunciacon of the
blessed Virgin in the yeare of our Lord god
1593 and of St Michael the Archangell
abovesaid by equall portions, for one yeare
endinge at the same Feaste of St Michael

Lxxx^{li}Summa Lxxx^{li}

Page 50

Exonera-
tio

Item to be allowed of reprises, for Pensions,
Procurations chief rentes, outrentes, and
comen fines yssuinge out of the chardge
and receipte aforesaid, due at the feaste
of St Michael last past viz 1592

ix^{li}xiiij^sj^dSumma ix^{li} xiiij^s j^d

Summa omn' solut et

allocat predict lxxxxix^{li} xiiij^s j^d

Et adhuc remanent de dict onere et recept clare x^l iij^s
unde

1592	In reparacons, and other extraordinarie chardges bestowed uppön the Capitall, or Mansion howse of the said Hospitall, and other the howses belonging to the same, sythence the feaste of St Michael tharchangell 1592 aforesaid viz	
1593		
Octobre 1592	Inprimis the said Accomptant prayeth allowaunce towardes, thexpenses in the visitacon holden by the Deane and Chaptre at the said Hospitall Anno domini 1592.....	xi ^s
5 ^{to} die	Item paid to Michael Skynner for squareinge twoe peeces of tymber	vj ^d
10	Item to John Grundy the Mason for twoe dayes worke in coyninge and paveinge	xx ^d
Novembris 8 ^o	Item to John Bond for pavinge before the Almeshowses in the Katherin Rowe	ij ^s
Decembre 9 ^o die	Item to John Grundye for one dayes worke in seelinge the loft over the stayers beyonde the Parlo ^r	x ^d
	Item CC of lathe nayles for the same	viiij ^d
	Item iij bz of lyme for the same	ix ^d
	Item to Symon Hall smythe for twoe newe lockes and keyes for the buttry and Pantery doore	ij ^s
	Item spike nayles for the same	j ^d
February 6 ^{to} die	Item to John Barnesley for di C of Bricke to mende the Oven and Furnace	x ^d
	Item to John Grundy for one dayes worke in mending the said Oven and Furnace	x ^d
	Item to James Stafford for viij C of quicke sett Summa xj ^s vj ^d	xvj ^d
11. 6		
Page 51		
Marche 1593	Inprimis a locke and keye for the Stable doore	iiij ^s
27	Item nayles and plates of yron for the same ...	iiij ^d
Aprilis 1593	Item lathe nayles for Tylers	ij ^d
4 ^o	Item v crestes	v ^d
	Item to John Grundye and his man for x dayes worke in tylinge over the chappell and the servautes chamber	vij ^s
	Item spike nayles, hatche nayles and boorde nayles for the ioigners	viiij ^d
	Item to Thomas Mayo ioigner, and his man for viij dayes worke in makeing windowes aboutes the mansion howse	viiij ^d
10	Item to the Churchwarden of Ledbury for twoe thousand of Tyle and for stonne to make twoe newe howses of office and the Furnace	xij ^s
	Item to John Grundye for digging the same	xx ^s
	Item to M ^r Roger Bodenham for a tymber Tree in Eastewoode	iiij ^s
	Item to the wood man for marking the same...	iiij ^d
	Item for falling the same	iiij ^d
		vj ^d

Maij 1593	Item to John Grundy for one dayes worke in tyling over the mansion howse	x ^d
	Item lathe nayles	j ^d
	Item for fower lettis for the windowes in the Kytching and bruyng howse	ij ^s
21	Item one lettis for a windowe in the chappell	vj ^d
	Item a lettis for a windowe in the servautes chamber	vj ^d
Junij	Item to Symon Bullocke for twoe whoppes for the Furnace	x ^d
7	Item nayles for the same	ij ^d
	Item to W ^m Taylo ^r for yron for the Furnace...	j ^d
	Item to a Pewterer for mending the said Furnace and for sowder	xij ^d
	Item spike nayles for the Furnace cover	iiij ^d
	Item for the carriage of viij loade of stonne from the Quarrell	viiij ^s
	Item to a poore woman for gathering mosse to the masons	iiij ^d
	Item to Tho ^r Parry for one dayes worke in tyling over the chappell	x ^d

Summa solut viij iij^d
huius pagine

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Junij 1593	Item to James Mericke and John Morrice for two dayes worke in carring stonne and mortar to the Masons	ij ^s
12	Item spike nayles and lathe nayles	iiij ^d
	Item for the carriage of vij wayne loades of tymber from Eastewood	vij ^s
Julij 1593	Item to twoe masons of Hereford for xiiij dayes worke in makeing of the said twoe newe howses of office and renewing up the Furnace w th stonne worke and Bricke	xx ^s
17	It a thowsand of bricke for the same	viiij ^s
	Item to Willm Taylo ^r smythe for twoe plates of yron for thende of the Bruyng howse ...	vj ^d
	It spike nayles for the same	j ^d
28	Item to David Morgan to David Morgan (sic) and Henrye Jenkins for fower dayes worke in sawing tymber for the said twoe howses of office and for a newe howse for pultery.....	v ^s
	Item to John Hopley for twoe dayes worke in saweing tymber for the chamber over the mylhowse and to his sonne for twoe dayes more	ij ^s
	Item to Robte Crowse, Carpenter and his three men for xiiij dayes worke in erecting up the said twoe howses of office and the newe pultery howse.....	viiij ^d
	Item spike nayles and boorde nayles for the same	x ^s
	Item for studding and wynding of the fore-said three howses	vj ^d
	Item to John Grundye mason and to his man for v dayes worke in tyling the said howses	iiij ^s
	It a C of lathe for the same	iiij ^d
	Item vj Crestes	xij ^d
	Item vj C of lathe nayles for the same	vj ^d
	Item CC of lathe nayles for the same	xij ^d
		viiij ^d

28	Item spike nayles to nayle the Eves powles ...	vj ^d	
	Item ij bz of lyme.....	ix ^d	
	Item to a poore woman in carring mosse for the same	ij ^d	
August 1593	Item to Thomas Parry and David Morgan for fower dayes worke in claying and p(ar)ietting the said howses	iiij ^s	viiij ^d
16	Item v bz of heare lyme for the same		xv ^d
	Summa solut huius pagine	iiij ^u	xviiij ^s x ^d
Page 53			
Augusti 1593	Item to Symon Hall smythe for a keye and staple for the howse of office at theste ende of the mansion howse	iiij ^d	
	Item for twoe payer of hinges for the dores of the pultery howse	viiij ^d	
25	Item to John Grundies man for one dayes worke in tyling over the chappell	viiij ^d	
Septembre 1593/5	Item to Willm Cooke and David Morgan for twoe dayes worke in saweing tymber for the myllhowse	ij ^s	viiij ^d
	Item to John Grundie and his man for one dayes worke in coynng the Barne at Eustace howse		xvj ^d
	Item to twoe carpenters of Hereford for ix dayes worke in gysting, floringe and makinge, the stayers over the myll howse	xiiij ^s	iiij ^d
	Item to a man in carring and recarreing the carpenters tooles to and from Heref to Ledbury	iiij ^s	xiiij ^d
	Item vj C of boorde nayles for the same		xij ^d
	Item spike nayles for the same	iiij ^s	iiij ^d
	Item to John Walters for v dayes worke in studding and wyndng the walles of the said myll howse	v ^s	iiij ^d
	Item to the same John and James Mericke for iiij dayes worke in claying the said walles		vj ^d
	Item to widowe Taylor in drawing thatche for the same howse	ij ^s	viiij ^d
	Item to Symon Hall smythe, for a staple, a payer of doore hinges, and a locke and keye for the doore of the said chamber		viiij ^d
	Item for the carriage of vij loade of tymber and boordes from Canon wodd	vij ^s	
	Item to Tho : Byspe for twoe dayes worke in thatchinge over the said myll howse		xvj ^d
	Item twoe dussen of crestes for the same howse	ij ^s	
	Summa solut huius pagine	xlviij ^s	iiij ^d
	Summa tollis omi solut predict	xij ^u	xvj ^s xj ^d
	Et sic		
	Summa solut, et allocat, excedit Suma Receptorum—xxxxiiij ^s xj ^d hoc Anno ultra allocat pro expensis visitationis eodem Anno, Seen, perused, exaied, and allowed by us		
	Tho : Thornton, heb'd		
	Miles Smyth		

Gerv. Landaven'

1593
1594

The Accompte of M^r Edward Cowper Clerke, warden of the Hospitall of Ledbury, belonginge to the Dean and Chapter of the Cathedrall Church of Heref, of and for all receiptes Together wth all the exonerationes, dischargdes, and paymentes by the said Edward Cowper, from the Feaste of St Michael tharchangell in the yeare of the Nativitie of our Lorde 1593 Et Anno Regni serenissime dne nre Elizabeth nu' Regine &c Tricesimo Quinto, usque ad idem Festum sct Michis, Anno domini 1594 dceque dne Regine, Tricesimo sexto, viz pro uno Anno integro

Recept reddit et Firmaruu

Onus

Inprimis receyved of the rentes due in the Feaste of the Annuciacion 1594. And of St Michael tharchangell, then nexte and ymedietelie followinge for one whole yeare ended at the said Feaste of St Michael accord-
ing to the severall Leasses made Lxxxxxviij^u x^s
Item receyved of free rentes in Ledbury aforesaid, Eastno^r and Weston upon Fromey w^{thin} the said Countie of Heref, due at the feaste of St Michael aforesaid xix^s ij^d ob
Item receyved of Customary and Free rentes w^{thin} the Bearowe, in the Countie of Worcester, due at the said Feaste of Saincte Michael, for the whole yeare then endinge ... xxvj^s x^d ob
Summa totalis oneris
ac recept predict Lxxxxix^u xvij^s j^d

Solutions and paymentes ordinary sithence the firste daye of Octobre Anno domini 1593, abovesaide out of the Receipts aforesaide

Exonera-
tio

Inprimis the said Warden, or M^r, askethe to be allowed of Lxxx^u payed and allowed for Stipendes due to the said warden and M^r to the Brothers and Systers of the said Hospitall, at the Feastes of thannunciacon of the blessed Virgyn in the yeare of our Lord God 1594 and of Saincte Michael the Archangell abovesaid by equall porcons, for one yeare endinge at the same feaste of St Michael..... Lxxx^u
Summa Lxxx^u
Item to be allowed of reprises for procuracions, pensions, chief rentes, out-rentes, and comon Fines yssuyng out of the chardge and receipte aforesaid, due at the said Feaste of Saincte Michael last paste viz 1594 ix^u xiiij^s j^d
Summa ix^u xiiij^s j^d

Summa om' solut Lxxxix viij^s ij^d
et allocat predict
debet Et adhuc rem' de dict onere et recept clare x^u iiij^s unde

1593
1594

In reparacons and other extraordinary chardges bestowed uppon the Capitall or mansion howse of the said Hospitall, and other the howses belonging to the same, sythence the Feaste of Saincte Michael tharchangell 1593 aforesaid viz

Octobris
1593

Inprimis the said Accomptant prayethe allow-
ance towards thexpences in the visitacon

	holden by the Dean and Chapter, at the said Hospitall Anno domini 1593	xl ^a
20 die	Item to Thomas Parry, for one dayes worke in coyninge the howse of office for the poore	viiij ^d
Novembris 1593 26 ^o	Item payed to Robte Crowse and his twee men for v dayes worke at Eustace howse in mendinge the Barne there	viiij ^a
Decembris 1593.29 ^o	Item to Tho: Mynton for fallinge an Elme to make boordes	vj ^d
February 1593 20	Item to Robte Crowse and his man for one dayes worke in squareing the said Elme	xij ^d
	Item to W ^m Taylo ^r smythe, for ij boltes of yron, for the waynescott doore in your lodginge chamber	iiij ^d
1594		
Aprilis 5 ^{to} die 10	Item to John Morrice and Robte Camden for carringe stones to the mason	xij ^d
	Item to goodman Pecocke for iij dayes worke in hewing punchinges and bottoms for the pigeon howse	ij ^a vj ^d
	Item to Robte Crouse and his man for one dayes graffinge	xij ^d
May 1594 15 ^o die	Item iij Crestes to carry the water from the studye over the porche	iiij ^d
	Item to James Band for Tyle and pavinge stones	x ^a
	Item to John Grundy and his man for iij dayes worke in scubling the said stones and tyle	v ^a iiij ^d
	Item for the carriage of x loades of Tyle and stones	x ^a
	Item boorde nayles spike nayles and lath nayles for the pigeon house	iiij ^a ix ^d
	Item to John Hopley and his sonne for sawinge v C of elme boordes	vj ^a
Junij 1594 8 ^o die	Item to Robte Crowse and his ij men for one dayes worke in falling trees at grove filde	ij ^a
17 ^o	Item to ij poor women for carringe horsdonge for the p(ar)ietters	vj ^d j ^d
	Item mosse for the Tylers	
	Item to John Hopley and his sonne for iij dayes worke in sawing tymber for the pigeon howse and the newe stayers leading up to the servautes chamber	vj ^a viij ^d
	Item to John Grundye and his man for iij dayes worke in tyling, coyning, and claying the said newe stayers	iiij ^a iiij ^d
	Summa solut huius pagine v ^{li} ij ^a xj ^d	
Page 57		
Junij 1594	Item one creste to drawe water from the foresaid stayers	j ^d
	Item CCC of boordes nayles and di C of spike nayles to laye floores and for the pigeon howse	ij ^a
	Item lathe nayles for the same	x ^d

22	Item to David Lone and Tho: Rogers, for xij dayes worke in renewing thone half of the pigeon howse, makeing of a newe payer of stayers and in flooring the servautes chamber	xx ^s
	Item for carringe their tooles	xij ^d
	Item to Tho Cooke and his sonne for xij dayes worke in claying the pigeon hooles and in cleaving lathes for the same	xv ^a
	Item to Tho: Parry for iij dayes worke	ij ^a viij ^d xvj ^d
	Item to John Bayly	
Julij 1594 6 ^o	Item to John Grundy for one dayes worke in paving the pigeon howse	xij ^d
	Item to Tho Parry for fower dayes worke in p(ar)ietting the walles of the pigeon howse and newe stayers	ij ^a viij ^d xvj ^d
	Item to Tho: Beese for fower bz of lyme	
	Item to W ^m Taylo ^r smyth for ij payer of hinges and hookes for twee doores	xxij ^d viij ^d
	Item more for a plate of yron	x ^s
	Item for saweing viij C of Oken boordes	
	Summa iij ^{li} xvij ^d	
	Summa om' Allocat, et solut viij ^{li} iiij ^a iiij ^d	
	Et sic reman in manum dci Edri Cowper de onere, et Recept predict Allocatis allocandis omnibus clare	xxxviij ^s viij ^d
	Cha: Langford Deane Griffith Lewys Miles Smyth	
Page 58		
1594 1595	The Accompte of Mr Edward Cowper Clerke, warden or Mr of the Hospitall of Ledbury belonginge to the Deane and Chapter of the Cathedrall Church of Heref, and for all receiptes, Together w th all the exonerationes, dischargdes and paymentes by the said Edward Cowper from the Feaste of St Michael tharchangell in the yeare of the Nativitie of our Lorde 1594, Et Anno regni serenissime dne nre Elizabeth nunc Regine &c Trecesimo sexto usq ad idem Festo sci Michaelis Anno domini 1595 dne Regine Tricesimo septimo viz pro uno Anno integro	
	Recept reddit et Firmarum.	
Onus	Inprimis receyved of the rntes due in the feaste of the Annuntiacon 1595. And of St Michael tharchangell, then nexte and ymediately followinge, for one whole yeare ended at the said feaste of St Michaell accordinge to the sev(er)all Leasses made	Lxxxxviij ^{li} x ^a
	Item receyved of Free rentes in Ledbury aforesaid Eastnor and Weston upon Fromey w th in the said Countie of Heref due at the feaste of Saincte Michaell aforesaid	xix ^a ij ^d ob
	Item receyved of Customary and free rentes w th in the Bearowe, in the Countie of Worcester due at the said Feaste of Saincte Michaell for the whole yeare then endinge	xxvj ^a x ^d ob
	Summa tot ^{us} oneris ac recept predict	Lxxxxix ^{li} xvj ^a j ^d

Solutions and paym^{tes} ordynary sithence
the first daye of Octobre Anno domini 1594 above-
said out of the receiptes aforesaid.

Exoneratio Inprimis the said warden or Mr asketh to be
allowed of Lxxx^{li} payed and allowed for
Stipendes due to the said warden and Mr, to
the Brothers and Systers of the said Hospitall
at the Feastes of the Annunciacon of the
blessed Virgin in the yeare of our Lorde God
1595, and of St Michael tharchangell above-
said by equal porcons for one yeare endinge
at the same feaste of St Michael

lxxx^{li}Summa Lxxx^{li}

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Item to be allowed of Reprises for procurations,
pensions chieffe rentes, outrentes and com-
mon Fines yssuyng out of the chardges and
receipte aforesaid due at the said Feaste
of Saincte Michael last paste viz 1595

ix^{li} xiijs^a jdSumma ix^{li} xiijs^a jd

Summa omn solut
et allocat predict Lxxxix^{li} xiijs^a jd

Debet Et adhuc reman de dict onere et receipt clare x^{li} iijs^a

1594 In reparacons and other extraordinary chardges bestowed upon
1595 the Capitall or Mansion howse of the said Hospitall and other the
howses belonging to the same sythence the Feaste of Saincte
Michael 1594, aforesaid viz

Octobre Inprimis the said Accomptaunte prayeth
1594 allowance towards thexpences in the visitacon
holden by the Deane and Chapter at the said
Hospitall Anno domini 1594

xl^a

Novembris Item to a man for three dayes worke in draw-
10 inge strawe

xviij^d

17 Item to man for ij dayes worke in thatching
over the myll howse and garner

xvj^d

Decembris Item to John Grundye Mason and his man for
1594 21 twoe dayes worke in repairing or mending
the chymney in the kytychinging (sic).....

iijs^a iiij^d

Item lathe nayles and borde nayles for the
mason to seele p(ar)te of the kytyching.....

x^d

It di C of lathe for the same.....

vj^d

Item iij bz of heare lyme

ix^d

29 Item paid to the Collecto^{rs} for taske due out
of the said Hospitall.....

vj^aSumma solut xiijs^a iiij^d ultra xl^a

huius pagine

Allowed for the chardges of the visitacon

In toto Liijs^a iiij^d

14-3

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Martij Item paid for vj^{li} of chawke for the glasier
1595 16 to skoure the glasse windowes

iiij^d

Item CC of lathe nayles

iiij^d

Item a newe baldricke and a buckle for the
clap(er) of the chappell bell

viiij^d

Item for sawinge certen rayles

vj^d

Maij 1595 Item for nayles hookes and hinges for the
7 doore of office wthin the chamber wthin the
p(ar)lor

viiij^d

Item to a carpenter for makeing the same
doore

iiij^d

Item spike nayles to mend the stayers in the
Kytchen

ij^d

16 Item to James Byspe for ij dayes worke in
drawinge strawe.....

viiij^d

Item to Thomas Lawrence for vj dayes worke
in thatching the Howses at the Manner of
Dunbridge

iiij^a

Item ij lockes and keyes for the backe doores
at the said Manner.....

xvj^d

17 Item for xv doz of pannell to waynescott the
chamber over the larder howse

xv^s

Item for the carriage of the same

xiij^d

Junij 1595 Item to Robte Crowse and his twoe men for
2 one dayes worke in settinge a newe sill
under the Barne at the Manner of Dun-
bridge

ij^a

3 Item to symon Hall for nayles for the ioigner
20 Item to the ioigner for waynescotting the
sayd chamber over the larder howse

xlvj^s viij^d

Item twoe lockes and keyes for the howse of
office belonging to the Almesfolke

xvj^d

26 Item to W^m Taylor smythe for a payre of
hinges, latch and ketcche for the portall
in the foresaid chambre over the larder
howse

xiiij^d

2 Item more for twoe casem^{tes} for the glasse
wyndowes in the chamber wthin the
p(ar)lor and the chamber at the stayers
heade beyonde the p(ar)lor

iiij^a

Item lathe nayles for the glasier

vj^d

Item iij^{li} of chawke

iiij^d

Item ij bz of lyme to dresse the garner walles
Summa solut iiij^{li} xviij^d
huius pagine

viiij^d

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Julij 1595 Item to John Grundy and his ij men for paving
12^o the courte

x^s

Item to James Band for paveing stones for the
same

vj^sviiij^d

Item to John Grundy and his man for ix dayes
worke in tiling over the mansion howse

xijs^a

Item lathe nayles for the Tyler

ij^d

Item for xvj Crestes

xvj^d

Item to Edmund Whopper and W^m Meeke
for xj bz bz of lyme

iijs^aviiij^d

Augusti Item to Hughe Vurden for twoe thousand
1595 2^o of tyle stones

xx^s

Item paid for the skubling of the same

iiij^s

Item for the carriage of the same from Teddes-
wood

viijs^a

Item to John Grundy and his man for Tylinge
a newe thone half of all the Almeshouses...

xxx^s

29 Item to Thomas Reese for iiij^{li} of lyme.....
Item to George Hunt and Christofer Morgan
for nayles for the ioigner and Tylers.....

xvj^dijs^a

Item to Tho: Hall plu(m)ber for repaying
and amending the glasse windowes..... vj^s viij^d
Item a qrrte of lyne seede oyle for the same xvj^d
Item to John Staple for sett ij gally beames
in Peter branches chamber ij^d
Item payde to Mr Thomas Willis for prosecut-
ing sute in the Exchequere against Gyles
Nanfan Esquier and W^m Mutlowe for wth
holding rentes due to the said Hospitall..... xxx^s
Summa solut
huius pagine vj^{li} xviij^s iiiij^d

Summa om' allocat et solut xj^{li} xiiij^s ultra
xl^s pro le diet visitacoois x^d

Cha : Langford Deane
Tho Thornton

Sic summa exposit et
solut excedit summa recept ij^{li} ix^s

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Md that from the Feaste of St Michael anno
domini 1584 unto the said Feaste Anno domini
1595, Mr Edward Cowper did laye out and
disburse in the affaires of the Hospitall of
Ledbury (over and above all receiptes, or
allowances to allowed) as under the handes of
the Dean and Chapter of Heref maye appeare xxj^{li} iij^s jd ob

Whereof

The Willis gent ys to paye for a Fyne by him
receyved of twoe Tenntes at the Bearowe
in com Wigorn vli

Md that from the Feaste of the Annunciacon
1581 unto the Feast of St Michael 1595
Mr Edward Cowper did disburse in the
affaires of the Hospitall of Ledbury, (over
and above all manner of receiptes and
allowances whatsoever) Liiij^{li} iij^s jd ob
as maye appeare
under the hands,
of y^e deane and
Chapter of Heref

Whereof

There ys remayninge in the booke of accompts
w^{ch} Mr Dr Kerry borrowed and receaved at my
handes (wth faithfull promis to redeliver
him backe to mee againe) the some of xxxij^{li}
ij^s jd disburssed by Mr Cowper, over and above
all his receipts of Fynes and rents by him
receaved, and by the said booke of accompts
under the handes of the Deane and Chapiter at
lardge appeareth xxxij^{li} ij^s jd

GLOSSARY

- BALDRICK.** The leather gear for suspending the clapper of a church bell.
BEETING. "beating the barne, the servaunts chambre" (p. 6) Mending.
Halliwell in *Dictionary of archaic and provincial words* gives To
repair; to mend. In Wright's *Dialect dictionary* it states that
a beet-hammer is one used by masons, but the word is recorded
for Northumberland only.
BOTTOMS. A board, generally of narrow dimensions, but the full breadth
of the tree from which it was sawn. Or horizontal members in the
first floor corresponding to the cills of the ground floor into which
the punchions were framed.

- BOULTING-HOUSE or BOLTING-HOUSE.** The place in which meal is sifted.
CANE. CAME LEAD. A small grooved bar of lead used in framing the glass
in lattice windowes. O.E.D. 1688.
CASTING. To throw up with a spade or shovel. O.E.D. 1614.
COYNING. COINING. To furnish with quoins, wedges or corner-stones.
O.E.D.
CRATCHES. A rack or crib to hold fodder.
DAUBING. To coat or cover with plaster, mortar, or clay.
DEYHOUSE. A dairy.
EVES POULES. Either A pool of joists or roof members connected with the
eaves. Or poles, stouts or props used on roof work.
FRENCH WALL. A wall of loose stones about breast high built to secure
the toe of a sloping bank. To-day term modified to mean loose
stone packing at the base and back of a retaining wall to prevent
accumulation of water.
FINE. A fee paid by a tenant to the lord of the manor on the transfer or
alienation of a tenant-right; or, on the commencement of a tenancy,
to have a low rent afterwards.
GYMMALLES. GIMMALS. Hinges. O.E.D. 1605.
GALLEY BEAMS. Galley—balk is the cross beam in a chimney from which
the pot hooks or "reckons" hang.
HAIR. Lime mixed with cement for plastering.
HERIOT. A render of the best live beast or dead chattel of a deceased tenant
to the lord of the manor; usually a money payment was made
instead in later days.
KILL, KILLEN, KILN. A furnace or oven for burning, baking, or drying.
In Middle English the final n became silent in most districts. O.E.D.
KIRFFS. Sectional pieces cut to form the curb on which the brickwork of
the well was to be constructed. These are cut from elm as it is
more durable than other wood if kept constantly wet.
LATTIS. Lattice-window, one made of metal crossed and fastened together.
LIME, FOREST. Brought from the Forest of Dean.
LOFTING. A roofing, ceiling, or flooring.
PANNEL. Panel, possibly.
PENSIONS. Probably salaries.
PERKES. A local measure of eight yards; used in Hereford, Worcestershire,
etc. Or possibly a local pronunciation of *perch* five and a half yards.
Duncumb in his *History of Herefordshire* says that for fencing a
perch was seven yards in this county.
PUNCHINS. PUNCHEON. A short upright piece of timber in a wooden framing
which serves to stiffen one or more long timbers or to support or
transmit a load. Or, a piece of timber with one face roughly
dressed, or a split trunk, used for flooring and rough building. O.E.D.
ONWARDSES. In advance; or, as an 'earnest'.
QUARRELL. Quarry.
RABBATING. REBATING. Making a channel, groove, or slot along the face
or edge of a piece of wood to receive the edge of another piece.
RAYLLES. Central horizontal timbers of a wall, i.e., not the sill or head
timbers.
SCUBLING. SCABLING. To smooth the surface. Only recorded for North-
umberland by Wright and Halliwell, though in common use in
Herefordshire today.
SHEERE. A shortened form of sheerehouse, a shelter built on to existing
farm buildings to form a shelter for cattle when turned into the
stockyard. Apparently derived from the German "schauerhaus".
SILLS. Strong horizontal timbers serving as foundations for walls.
SOLLER. An upper chamber or loft; a garret.
STUDS. One of the upright timbers in the wall of a building, or, more
probably here, laths used as the uprights in the partition walls of
lath and plaster buildings.

SUMMER. A horizontal bearing beam in a building : the main beam supporting the girders or joists of a floor. When on the face of a building it is properly called a Breastsummer. O.E.D.

THRAVE. A measure of straw that varies : usually either twelve or twenty-four sheaves of straw. The number here is uncertain.

TRANSLATING. Removing?

TWART. Towards.

WHOPPES. Hoops.

WYNDINGS. Probably the hazel rods used in wattle and daub construction of walls.

YOISTES. Joists.

A TWELFTH CENTURY PAPAL BULL

By A. L. Moir, M.A., F.R.Hist. Soc.

A bull was issued in 1130, by Pope Innocent II to Robert Bethune, bishop of Hereford, confirming the rights of the cathedral to its possessions. This bull was apparently unknown to the compilers of the volumes of the Hereford Diocesan Register, for it is not included in their transcriptions. The original document was shown to me in 1953 by the Keeper of MSS. in Canterbury Cathedral Library and a photostat has been made and presented to the Woolhope Club.

Such bulls were not uncommon, and many monasteries came to regard them as precautionary safeguards of their temporalities. The bull of Innocent II corroborates the bishop's rights to his established goods and possessions. Presumably this would include the claim to 1/8th of the proceeds of the Hereford fair granted by royal charter to his predecessor, Capella. It is interesting to note that when Innocent issued this bull in 1130, there was a rival claimant to the papacy in the anti-pope Anacletus II, and it was not until the Council of Etampes in 1131 that St. Bernard pronounced Innocent II to be the legitimate pope.

If Innocent's claim to be pope in 1130 was open to question so was Bethune's title as bishop of Hereford, for he was not consecrated bishop until 28th June, 1131.

So a pope, not fully recognised as pope, issued a bull to a bishop, not yet consecrated as bishop.

Bishop Bethune was prior of Llanthony before becoming bishop of Hereford. He devised the constitution of the cathedral chapter as composed of the dean, archdeacons, treasurer, chancellor, precentor and other canons. His episcopate was in the stormy days of King Stephen, which brought confusion to Hereford. Bethune being a personal friend of Henry, bishop of Winchester, the king's brother, naturally sided with Stephen. He was present when Stephen celebrated a victory over his cousin Matilda by attending mass, wearing his crown, in the cathedral on Whitsunday, 1138.

But the next year the army of Matilda captured the cathedral and used the nave as a stable.

In a death-bed confession Bethune admitted to an excessive affection for his storks and peacocks and for his black dog with white feet (canem nigrum albipedem)—a very human touch. He died on the continent after attending a papal council and his body was brought home protected in the carcase of an ox, and buried in the cathedral. His effigy is placed in a recess in the south wall of the presbytery aisle.

The signatories of the bull of Innocent II are the pope, three bishops, a cardinal priest and a cardinal deacon. It is dated XIII Kal. Jan., 1131 (December 20th, 1130, A.D.)

The original bull has been in the possession of Canterbury Cathedral since the twelfth century and is now exhibited in the Library there. It reads as follows:

Innocentius episcopus, servus servorum Dei, venerabili fratri Roberto Herfortensi episcopo ejusque successoribus canonice substituendis in perpetuum. Officii nostri nos hortatur auctoritas pro ecclesiarum statu satagere et earum quieti et utilitati, auxiliante, Domino, providere. Dignum quippe est, et honestati conveniens esse cognoscitur, ut qui ad ecclesiarum regimen assumpti sumus eas et a pravorum hominum nequitia tueamur et beati Petri atque apostolicæ sedis patrocinio muniamus. In eminenti namque apostolicæ sedis specula, disponente Domino, constituti, ex injuncto nobis officio fratres nostros episcopos diligere et ecclesiis sibi a Domino commissis suam debemus justitiam conservare. Eapropter venerabilis frater Roberte episcopo, rationabilem precum tuarum instantiam attendentes, justis postulationibus tuis gratum prebemus assensum, et Herfortensem beatæ Mariæ ecclesiam presentis privilegii pagina roboramus, statuentes, ut quascumque possessiones quaecumque bona in presentiarum juste et legitime possidet, aut in futurum concessione pontificum, liberalitate regum vel principum, oblatione fidelium seu aliis modis rationabiliter, præstante Domino, poterit adipisci, firma tibi tuisque successoribus et illibata permaneant. Decernimus ergo ut nulli omnino hominum liceat prefatam ecclesiam temere perturbare, aut ejus possessiones auferre, vel ablatas retinere, minuire, vel aliquibus vexationibus fatigare; sed omnia integra conserventur, eorum, pro quorum gubernatione et sustentatione concessa sunt, usibus omnimodis profutura. Si qua igitur in futurum ecclesiastica secularisve persona hanc nostræ constitutionis paginam sciens contra eam temere venire temptaverit, secundo tertiove commonita si non satisfactione congrua emendaverit, potestatis honorisque sui dignitate careat, atque in extremo examine districtæ ultioni subjaceat. Conservantibus autem a remuneratore omnium bonorum Deo felicitatis æternæ retributio et beatorum apostolorum Petri et Pauli gratia concedatur. Amen. Amen.

Ego Innocentius catholice ecclesiæ episcopus subscripsi.

Ego Guilielmus Prenestinus episcopus subscripsi.

Ego Matheus Albanensis episcopus subscripsi.

Ego Johannes Ostiensis episcopus subscripsi.

Ego Petrus presbiter cardinalis Sancti Martini ss.

Ego Romanus diaconus cardinalis Sanctæ Mariæ in Porticu ss.

Ego Gregorius diaconus cardinalis Sanctorum Sergii et Bachi ss.

Ego ———

Ego Albertus cardinalis diaconus Sancti Theodori subscripsi.

Dat' Trevis per manum Aimerici sanctæ Romanæ ecclesiæ diaconi cardinalis et cancellarii XIII kal. Januarii, indictione X, incarnationis dominicæ anno MCXXXI, pontificatus autem domini Innocentii Papæ II anno secundo.

TRANSLATION.

Innocent, the Bishop, servant of the servants of God, to our venerable brother Robert, Bishop of Hereford, and to his successors canonically appointed, perpetual greeting in the Lord. The authority of our office obliges us to be active in defence of the churches and with the Lord's help to make provision for their peace and usefulness.

It is certainly fitting, and is recognised as compatible with our duty that we who have been called to the government of all the churches should both defend them from the wickedness of evil men, and support them with the protection afforded by St. Peter and the Apostolic See.

Placed as we are by divine Providence in the watch-tower of the Apostolic See, by the office imposed on us we ought to cherish the bishop, our brethren and to maintain justice for the rights of the churches entrusted to them by the Lord. Therefore hearkening to the reasonable insistence of your request, venerable brother bishop Robert, we give ready assent to your petitions and we support the church of the Blessed Mary of Hereford by this present document of privilege, declaring that whatever possessions and goods it at present justly and lawfully possesses, and in the future by the grant of popes, the generosity of kings and princes, by the offering of the faithful, or by any other means, may in due form, with God's help, obtain, these shall remain established and unimpaired, for you and your successors.

We declare that it shall be lawful for no man rashly to disturb the peace of the aforesaid church, or to take away its possessions, or to retain them if taken away, to diminish them, or to harass it with any kind of annoyance, but that all shall be kept unimpaired, available for all manner of use by those for whose government and maintenance they were given. If therefore any person in the future, clerical or lay, knowing the terms of this our decree, shall rashly presume to contravene it, and shall not after a second or third warning make amends with suitable satisfaction, let him be deprived of the dignity of his power and rank and remain liable to the severest penalty at the last judgment. But to those who maintain it may the reward of everlasting happiness be granted by God, the rewarder of all good men, and let the favour of the blessed apostles Peter and Paul be granted to them. Amen. Amen. Amen.

I Innocent bishop of the catholic church have signed.

I William bishop of Praeneste have signed.

I Matthew bishop of Albano have signed.

I John bishop of Ostia have signed.

I Peter cardinal priest of S. Marton have signed.

I Gregory cardinal deacon of S.S. Sergius and Bacchus have signed.

I — — —

I Albert cardinal deacon of S. Theodore have signed.

I Romanus cardinal deacon of S. Mary in Porticu have signed.

Given at Troyes, by the hand of Aimeric, cardinal deacon and chancellor of the Holy Roman Church, on the 13th of the kalends of January, in the tenth indiction, the year of our Lord's incarnation 1131, and second of the pontificate of Innocent II.

THE FOLLOWING LISTS OF SCHOOLMASTERS AND SURGEONS, LICENSED BY THE BISHOP OF HEREFORD, AS RECORDED IN THE SUBSCRIPTION BOOKS IN THE BISHOP'S ARCHIVES, 1683 TO 1835, MAY BE OF SERVICE TO STUDENTS OF LOCAL HISTORY IN HEREFORDSHIRE AND SHROPSHIRE.

SCHOOLMASTERS		
Date	Name	Parish
Book E		
1682 27 Feb.	Thomas Marston	Ludlow
1683 19 April	Thomas Hitchcock	Whitney
15 May	Jeremiah Griffiths	Kington
3 July	John Beddoes	Wenlock
17 Sept.	Benjamin Evans	Kimbolton
30 Oct.	James Williams	Leominster
6 Nov.	Hugh Meredith	Brate Meol
12 Feb.	Somerset Shaw	Eye
15 "	Epiphanius Howorth	Kinnersley
1684 2 Apl.	Hugh Pugh	Pembridge
26 "	Thomas Torr	Bartestree
29 "	Richard Hudson	Clungunford
" "	Thomas Minton	Diddlebury
8 Jul.	Richard Neathway	Stokesay
9 "	Thomas Harper	Worthin
12 "	Joshua Elmhurst	Bosbury
2 Sept.	John Like	Clun
10 Mar.	Charles Evans	Bishops Castle
1685 19 Sep.	William Pryse	Clifton
13 Oct.	John Jones	Ludlow
1686 29 May	Francis Greene	Bridgnorth
13 Jul.	Richard Davis	Much Dewchurch
31 Aug.	Edward Urwick	Cleobury Mortimer
8 Sep.	William Pryce	Clifton
1687 19 Jan.	Thomas Colbatch	Yazor
1691 30 Oct.	Ralph Ridgway	Alberbury
9 Nov.	John Wooddin	Weobley
1691/2 5 Mar.	John Jones	Dorstone
1692 23 Jun.	Daniel Clutterbuck	Orleton
30 "	Evan Lewis	Kington
15 Jul.	Thomas Thomason	Chelmarsh
" "	Cornelius Osland	Cleobury Mortimer
" 2 Dec.	Elisha Millechamp	Tenbury
1693 1 Aug.	Edmund Cheese	Stretton
Oct.	Thomas Price	Leinthall Earles
20 Mar.	Thomas Jones	Llangarron
1694 8 May	Edward Turnor	Stoke Edith
8 Oct.	John Ketley	Cardington
29 Jan.	Richard Jones	Montgomery
1698 Jul.	John Hutton	Whitbourne
Aug.	Robert Luddington	Abberley
11 "	William Wood	Colwall
1699 6 May	Richard Bethell	Wellington
1701 3 Jun.	Thomas Langford	Cardington
1701 12 Aug.	Robert Phillipps	Bewdley
Book C		
1703 20 Jul.	Edward Gethin	Alberbury
1703 9 Nov.	Evan Evans	Clungunford
10 "	Thomas Hayles	Bewdley

Date	Name	Parish
1704 23 Jan.	James Allen	Leinthall Starkes
11 Jul.	Walter Symonds	Colwall
1706 25 Feb.	Maurice Griffiths	Chirbury
1706/7 22 Mar.	" "	?
1707 11 Jun.	Edward Rogers	Ludlow
1715 26 Sep.	Humphrey Butler	Bitterley
1716 26 May	Acton Thomas	Collington
2 Oct.	Joseph Guest	Knighton
1718 6 Mar.	John Griffin	Kington
1720 25 Sep.	Thomas Medlicott	Chirbury
24 "	Butler Cupper	Bewdley
1722 12 Jul.	John Jones	Bosbury
19 Dec.	Andrew Smith	Leinthall Earles
1725 12 Sep.	Humphrey Griffiths	Presteigne
1729 25 Oct.	Herbert Wilde	Ludlow
1732 23 Oct.	John Guest	Bromyard
1734 3 Dec.	Thomas Howard	Bewdley
" "	Francis Southern	Cardington
" "	Onslow Parret	Ludlow
28 Jan.	Richard Penny	Cleobury Mortimer
" "	Robert Edwards	Rock
1735 20 Sep.	Robert Symonds	Ledbury
9 Oct.	Richard Adney	Ludlow
3 Mar.	Edward Davies	Knighton
1736 30 Oct.	Henry Vaughan	Leominster
3 Feb.	Howell Powell	Burghill
1737 5 Sep.	Thomas Tolledge	Westbury
21 Jan.	John Crowe	Ross
1738 10 May	Baynham Barnes	Monmouth
23 June	John Thomas (Usher)	Monmouth
27 "	Robert Harding	Chirbury
1739 12 Sep.	Tychicus Whiting	Chirbury
1740 21 Oct.	Thomas Skyrn	Bromyard
" "	Edward Whittell	Bitterley
1742 18 Jun.	Thomas Tringham	Lucton

A

1743 16 Mar.	Griffith Orkton	Leinthall Starkes
1744 20 Nov.	Usher Bishop	Kinnersley
1745 25 Feb.	George Seale	Chirbury
" "	Thomas Devy	Ludlow
1749 15 Jul.	John Kidley	Bosbury
4 Dec.	William Wilson	Much Wenlock
1752 27 Jun.	Richard Walton	Wellington
1753 25 Apl.	Thomas Bull	Old Radnor
26 Jun.	James Green	Weobley
1755 15 Apl.	John Bate	Bitterley
1757 11 May	William Steele	Ledbury
1764 4 Nov.	Charles Bate	Ross
1765 26 Jun.	Thomas Williams	Leominster

Roll

1766 28 Oct.	Matthew Clarke	Bromyard
2 Nov.	William Whalley	Kington
1767 24 Oct.	Roger Powell	Weobley
1768 22 Jun.	Charles Bate	Ludlow
1 Nov.	John Lewis	Ross
12 Dec.	William Devey	Bitterley

Date	Name	Parish
1771 26 May	Richard Stubbs (Usher)	Monmouth
30 Aug.	John Williams	Ross
1772 19 Sep.	Samuel Mountford (Usher)	Kington
Roll II		
1776 14 Oct.	John Vaughan	Pontesbury
1777 8 Apl.	Roger Lloyd	Bromyard
1778 23 Nov.	William Morgan	Bewdley
1780 19 Apl.	Thomas Prosser	Monmouth
1781 18 Apl.	John Powell (Usher)	Monmouth
27 Jun.	John Grubb	Presteigne
13 Nov.	Joseph Davies	Dore
1785 6 Jun.	John Bennett	Ledbury
1786 4 Dec.	Thomas Hughes	Colwall
1789 13 Jun.	Samuel Waring	Cathedral School
1790 25 Oct.	John Thomas	Ludlow
1791 8 Oct.	David Davies	Rock
1792 19 May	David Evans	Bromyard
18 Jul.	John Bissell	Kington
10 Aug.	John Thomas	Eardisland
1793 14 Aug.	Hugh Jones	Old Radnor
7 Oct.	Thomas Hughes (Usher)	Monmouth
18 "	John Powell	"
26 Nov.	John Ockey	Frome Bishop
1795 13 Nov.	William Giles	Ledbury
1796 1 Dec.	James Pott	Lucton
1798 28 May	Joseph Thomas	Bosbury
10 Jul.	Major Baker	Marden
1799 25 Mar.	William Humphreys	Ledbury
28 Oct.	James Jones	Leintwardine
1800 20 Mar.	John Lodge	Ledbury
1802 13 Jul.	Charles Taylor	Ludlow
23 "	John Thomas	Lucton
1807 12 Nov.	William Powell (Usher)	Monmouth
1809 18 Dec.	John Taylor	Ludlow
1812 19 Nov.	Benjamin Goodman	Colwall
1835 24 Sep.	George Monnington	Monmouth

(See also those licensed by the Dean and Chapter after the list of surgeons.)

SURGEONS

Date	Name	Parish
E		
1683 5 Oct.	Richard Hantorne	Whitney
26 "	Thomas Buncher	Lyonshall
8 Feb.	Edward Braughton	Hereford
1685 4 Aug.	Charles Vaughan	"
1692 27 Jun.	John Blackwell	Kington
1694 11 Sep.	Michael Stedman	Hereford
1695 (?)	Peter Scudamore	Ross
1698 7 Jun.	Julian Bushop	Tenbury
" "	Thomas Cook	Cleobury Mortimer
1 Aug.	William Pincher	Chirbury
3 "	Thomas Benn	Ribsford
" "	Francis Seager	"
" "	Nicholas Saunders	"
28 Feb.	Richard Jones	Church Stoke
1701 30 Sep.	Richard Corfield	Hopton Wafre
20 Jan.	Francis Ash	Much Wenlock

<i>Date</i>	<i>Name</i>	<i>Parish</i>
1702 17 Aug.	John Seaborne	Hereford
17 Nov.	Francis Pitt	"
1703 4 Jun.	Thomas Smith	Ribsford
1704 12 May	Richard Baker	Leominster
4 Jul.	David Powell	Diddlebury
1706 28 Aug.	William Price	Hereford
8 Nov.	Isaac Wyke	Wacton
1707 17 Jan.	Thomas Pountnay	Bitterley
15 Jul.	Benjamin Kettleby	Bromyard
5 Aug.	Thomas Collins	Leominster
1708 13 Oct.	John Huett	Frome
B		
1716 30 Jun.	Robert Newman	Hereford
30 Aug.	Roger Francis	Ribsford
"	Richard Franks	Culmington
4 Dec.	John Walton	Ribsford
1719 22 May	Edward Bradley	Knighton
18 Sep.	Samuel Browne	Bromyard
1720 29 Aug.	Edward Churchill	Hereford
1722 22 Jun.	Edmund Parkes	Wenlock
18 Aug.	John Holmes	Hereford
1723 11 May	William Carpenter	Ledbury
1724 30 Dec.	John Beswick	Ross
1725 15 Oct.	Thomas Day	Tenbury
"	William Smith	Leominster
11 Dec.	Samuel Wheeler	Hereford
1726 3 Dec.	John Ball	Bromyard
1727 27 Apl.	Edward Holder	Avenbury
1728 21 Jan.	John Prosser	Monmouth
1729 25 Mar.	John Warter	Kington
1730 6 Feb.	Lyson Thomas	Sutton St. Nicholas
1731 10 Apl.	Peter Crank	Leominster
20 May	George Mundy	Cainham
22 May	Richard Hardwick	Bishops Frome
4 Aug.	Thomas Lyke	Ludlow
26 Feb.	Thomas Gower	Leominster
1741 6 Oct.	Thomas Watcham	Leominster
A		
1744	Richard Jones	Lydbury North
1749 14 Apl.	John Granger	Leominster
1751 1 Jun.	James Beaumont	Old Radnor
1752 4 Oct.	Samuel Stott	Ludlow
1753 7 May	Delabere Pritchett	Brimfield
19 Jun.	Price Clutton	All Saints, Hereford
1754 22 Mar.	Thomas Vers	Presteigne
1755 29 Mar.	William Hammonds	Ludlow
31 Mar.	James Ashley	Presteigne
4 Aug.	Edward Young	Lingen
1756 16 Mar.	John Clee	Wistanstow
1758 9 Oct.	Samuel Colerick	Aymestrey
21 Dec.	Sheldon Wood	Kington
1759 21 Feb.	Marsh Napleton	Tenbury
5 Apl.	John Smith	Pembridge
25 Jun.	Richard Ayres	Bishops Castle
17 Sep.	William Evans	Lydbury North
20 Oct.	John Smith	Clifford
1760 22 Apl.	Edward Hardman	Cleobury Mortimer

<i>Date</i>	<i>Name</i>	<i>Parish</i>
1761 5 May	Philip Morris	Bucknell
1762 17 "	Francis Bray	Stoke St. Milborough
16 Jul.	Simon Exton	Diocese of Hereford
7 Dec.	Charles Hilson	" "
1768 21 Jun.	Joseph Holmes	Knighton
1 Jul.	David Williams	New Radnor
1769 18 Sep.	Job Bossward	Kington
1771 23 Sep.	William Wilde	Bishops Castle
1773 8 Mar.	Arthur Houle	Church Stoke
1774 30 May	Henry Lindsay	Bodenham
6 Dec.	Michael Shuckmill	Brimfield
1776 16 Jul.	Thomas Selley	Clun
1780 8 Dec.	Thomas Stephens	Bodenham
1791 26 Apl.	Robert Edwards	Presteigne
19 Jul.	Edward Prichett	Tenbury
1800 1 Apl.	Thomas Evans	Church Stoke
1801 31 Mar.	Richard Clee	Wistomstow
20 May	Thomas Edwards	[(?) Wistanstow]
		" (?)

SCHOOLMASTERS LICENSED BY THE DEAN AND CHAPTER OF HEREFORD

<i>Date</i>	<i>Name</i>	<i>School</i>
1730 25 June	Thomas Willim	Schola Inferiori Ecclesiae Cath., Hereford
1731 9 Mch.	" "	Officium Archididascali in Schola publi ^a Ecclesiae Cath., Heref.
" "	Henry Vere	Hypodidascali in Gymnasio publi ^a Ecclesiae Cath., Heref.
1734 11 April	Edward Finch	Marden
1735 14 June	Wm. Bradford	Hereford
1742 10 July	John Stephen	Undermaster, Cathedral school
1749 11 Nov.	John Stephens	Headmaster, Cathedral school
16 "	Francis Bell	Undermaster, Cathedral school
1763 25 July	Thos. Carpenter	Within the Deanery of Hereford
1770 16 Jan.	Richard Underwood	Undermaster, Cathedral school
1778 14 Nov.	Abraham Rudd	Headmaster, Cathedral school
" "	Henry Wm. Barry	Undermaster, Cathedral school
1779 30 Jan.	Benjamin Powle	Deanery of Hereford
1780 29 Mch.	John Lodge	Undermaster, Cathedral school
1783 8 Jan.	Gibbons Bagnall	" " "
1784 21 July	Robt. Squire	" " "
1787 5 May	Thos. Hartlam	" " "
1793 13 June	Wm. Carpenter	Deanery of Hereford
1809 8 Sept.	Thos. Goode	" " "
1819 9 Feb.	Wm. Thos. Lovell	" " "
1842 5 Apl.	John Woolley	Headmaster, Cathedral school

REPORTS OF SECTIONAL EDITORS

REPORT ON ARCHÆOLOGY FOR 1953

By I. COHEN, M.I.Mech.E.

The year opened with the demolition of the Manor House in St. Owen's Street, Hereford, in which process several interesting objects came to light, including three Elizabethan fireplaces, two of wood, the other of stone. A beam was disclosed ornamented with crude painted red scrolls and was taken to the Hereford museum. Several coins were found in the debris including an Elizabethan shilling and others dating from William III to George III.

A central ground floor fireplace surround was covered by three layers of wallpaper, under the lowermost layer of which were traces of painting on plaster work.

Removal of a stone chimney at the west end uncovered a hole in the ground in which were buried worked stones that may possibly have come from St. Owen's church, which at one time stood in the roadway nearby. The stones remain buried.

Mr. Matthews on 9th January reported a packhorse bridge over Holywell Dingle between Almeley and Eardisley. Deep mud prevented an approach at the time but on 18th March it was revisited by Major Salt, Mr. V. H. Coleman and myself. It is situated on Major Longueville's ground, where a waterworn disused road crosses the dingle just below Holywell cottage about a mile east of Eardisley. The bridge is of a single arch, stone built, without parapets and apparently of the early 18th century. The arch is slightly pointed, almost semi-circular, with a three feet wide opening and measuring 55 inches from foundation to the springing of the arch, the latter being about 20 inches from springing to top. The total width being about 15 feet brings it outside of the category of packhorse bridges.

Two visits were paid to Tyberton, the first on 24th January by the invitation of Commander Buckley, when Messrs. F. C. Morgan and J. N. Jackson accompanied me. Later, on 31st March, I came alone. Ploughing had uncovered the lower part of a stone wall and a rectangular stone paved patch with a narrow surrounding kerb, measuring about 11 feet by six feet. About 50 yards north east of the patch had been found part of a 17th century sack bottle and elsewhere pieces of slip ware and a tobacco pipe bowl of the same date.

At another part of the farm were two upright unworked stones, one measuring 46 in. high, 44 in. wide and 16 in. thick at ground level. The other was 36 in. high, 28 in. wide and 19 in. thick, the stones being about four feet apart.

About 70 yards south west of the first paved patch and 14 inches below the surface was found a second patch. Apart from the paving the whole area contains a large number of rounded stones, evidently morainic in character, and an adjacent field is named "Stony Field". Also found were remains of bricks, originally nine inches square and about two inches thick.

Though not coming within the scope of this report mention must be made of an interesting elm tree in the vicinity. It has a main branch which is horizontal and has thrown down a vertical stem that has taken firm root about 15 feet from the main trunk. The latter measures 18 ft. 4 in., in girth at five feet above ground level and the secondary stem has a girth of 5 ft. 8 in. immediately below its junction with the horizontal branch.

Miss L. Chitty's report on flints from the Thorn Farm (mentioned in the 1952 report) is now available. The first flint is a stout flake of a roughly lozenge form with a very well defined bulb and showing slight trimming on the edges and the bulbular platform; the material is a light brownish-grey flint with a highly lustrous surface, perhaps the result of lying in sand. The second has been a "Strike-a-light". It is a thick five-sided piece of dark blue-grey mottled flint, lustrous, with thin cortex on the convex surface stained pink, probably also by the local soil; the edges show considerable evidence of use as a strike-a-light, particularly around the major plano-concave face. The third is a spall of pale creamy-grey flint or chert, opaque and weathered; it might conceivably be a rejuvenating flake from the edge of a chipped axe, but is more probably merely a piece of a drift pebble naturally fractured.

The *Hereford Times* of 17th April, recorded that the large mound at St. Weonards had been replanted with trees to replace those that have decayed. The mound is about 130 feet diameter at the base, 20 feet high, and the summit forms a circular platform about 76 feet diameter.

When a trench was excavated behind the Girls' High School, Widemarsh Street, Hereford, on 20th May, some human bones were disinterred, including a lower jawbone and complete skull with almost perfect teeth. As no other remains were found with them it was impossible to date them accurately. Nearby some coins were found, including a William III half penny. At a later date, 24th September, when excavating another trench, a Roman coin was found behind the Coningsby Hospital.

During May several finds were made by Mr. G. W. Mawson at Sutton Walls at the north-north-west border of the camp, including a beaker complete but in two parts, measuring 5½ inches diameter at top, 3¼ inches at base and 5 inches high, the upper parts of two human skulls and some other items, including small pieces of black unglazed pottery and a straddle stone, 16 inches

diameter and 6 inches thick, with a hole an inch diameter and two inches deep.

During May I was shown an interleaved copy of Cox's *Herefordshire* 1717, in which was a manuscript reading as follows:—

"On April 2, 1806, the first stone above the foundations was laid on the Castle Green of the grand column to be erected on that beautiful spot in honour of the gallant Nelson. (Month Mag., Vol. 21, 1806).

1815

"Towards the end of February last some people accidentally discovered that the bank of the brook which runs on the east side of Eaton Bishop, or as Camden calls it, Eaton Wall, in Herefordshire, had fallen in, and a quantity of iron and copper, in an oxydation, attracted attention, which on nearer inspection proved to be old warlike weapons consisting of spear and javelin heads, battle axes and fragments of other instruments. They are supposed to have been at first deposited in large vessels, as several heavy hoops of iron, from three to four feet diameter, and the parts of rims of different sizes, like those of large pots or chaldrons, were found, also many massive rings of various dimensions, supposed to have been attached to their sides. On the first discovery the people of the vicinity carried off great quantities of old copper to Hereford and disposed of it to the braziers. It is presumed that this copper was part of some defensive armour. A person residing near the spot also found a small copper box containing what he described as similar to sealing wax, but he unfortunately destroyed both the box and its contents. It was not until about nine days after the first discovery that any gentleman in the neighbourhood was informed of it, and in consequence many curiosities no doubt were lost; amongst such as were preserved are several ornaments of copper, a piece of flint hewn into the shape of an arrow-head, a battle axe very perfect, and several arrow-heads, and a small quantity of composition which is presumed to be the same as the contents of the box above mentioned, upon which time has not had the least effect. In appearance it resembles red cornelian; it is very combustible and if the smallest particle is set on fire it continues burning until the whole is consumed, giving a very beautiful and clear flame—an odour by no means unpleasant is also perceptible. The situation in which these antiquities were discovered is extremely damp, and many from being placed upon each other, have become one mass of rust and completely lost their original shape. (Lit. Vol. 2, p. 502)."

Two flint arrow-heads were found in June. One, sand-polished was found at Wigget Farm, Pontrilas, by Mr. G. Watkins. The other was found on Hergest Ridge on the walk up from the entrance towards the Whetstone by Miss E. Pritchard on a Geographical Society tour. Both were given to the Hereford Museum.

SCHOOL MUSEUM AT KNIGHTON

On 3rd July a report of finds was received from Mr. L. T. Dale, B.Sc., of the County Secondary School, Knighton. One was a rough stone spindlewhorl about $1\frac{1}{4}$ in. diameter and $\frac{1}{3}$ in. thick, found in Willey parish. Flints included one described as a rough scraper of burnt flint and three others, including a small finger and thumb convex scraper from Coleshill, near Presteigne. (Grid Ref. 3347/2654). Two other flints were found practically on the border above Stocking Farm and on Reeves Hill. Over 100 flints have been found about a mile inside the Radnor border round Knobley near Evenjobb (Grid Ref. 3266/2613). These include a leaf shaped arrow-head, identified by the National Museum of Wales as of Neolithic type. Two odd stones were found at Walford (Grid. Ref. 3389/2725) measuring about 18 in. by 15 in., about 3 in. thick with a 10 in. depression, probably a quern. The school has established a museum of its own and it is hoped that Woolhope members will find interest in its contents.

BUILDINGS AND MONUMENTS OF HISTORIC INTEREST

In September and October of 1952 and in February, August and September of 1953 lists of buildings were issued by the Ministry of Housing and Local Government of buildings of special architectural or historic interest. They are too extensive to permit quoting in detail, but copies have been made for future reference.

During September and October demolition was completed of St. Peter's House in St. Peter's Street, Hereford.

The building Nos. 4 and 5 King Street, Hereford, referred to in last year's Archaeological Report, have now been restored with the minimum of alteration to their original frontal appearance.

Alterations still in progress to the interior of the Cafe Royal in St. Peter's Street, Hereford, have brought to light some interesting old rough hewn timber work, which the proprietors are taking steps to preserve.

An interesting item is the following copy of a letter concerning carriage building in Hereford.

Hereford Octo^{br} 29th 1811.

Sr.

When you was at Hereford lately you ask^d me if I hade made S^r Jn^o Cotterals Chaise. I did not make it it was made in London butt so *badly* made that we remade it and Bro^u it to the perfection that you see it by making Greatest part of it newe.

if you wish to have a new Chaise Built or Landaw blt I have a new one jest Compleat^d That is very light & strong & finish^d in such a Manner that not the verey first shope in London can Beat it in its Outline fashon & varnishg & strenth & at same time lightness to Run after the Horse—tis for a Gent^{l'm}

in your Neighborhood & shou^d we be Imploy^d by You Your . . . urs
will be Gratefully Acknowledg^d by Your . . . ble servants

Jo Thomas & Sons.

In 1792 directory is an entry : Thomas Joh. Coachbuilder.

In Piggot's Directory of Hereford of 1831 under the heading of "COACHBUILDERS" appears the entry Thomas Joseph and William, Eign Street. Is this a continuation of the firm from whom the letter emanated?

Coins brought in or reported during 1953.

ROMAN

January 19th, sent by Mr. A. James, 3, Laburnum Grove. Provenance unknown.

Claudius II. Copper coin minted in Alexandria, A.D. 270. Rev. *Fortuna*.

February 13th. Found in North Africa and brought in by a boy from the Cathedral School.

Obv. Head of Ptolemy (defaced). Rev. (in Greek) 'of King Ptolemy'. Minted in Cyrenaica. Either Ptolemy Philadelphus, B.C. 266-247 (See Daniel XI. 6), or Ptolemy Epiphanes, B.C. 204-182.

February 17th. From the Essex Museum, Colchester. Roman coins found at Credenhill about sixty years ago.

Tetricus I, A.D. 270.

Claudius II. Victoria Aug. R.I.C., 105.

Three coins of Carausius, A.D. 287-293. Rev. *Letitia Aug.*, *Provide Aug. S.*, (*P*)*ax, Aug.* M.L. (London).

Three coins of Constantine the Great, two *Gloria Exercitus*, one *Constantinopolis*, A.D. 335-.

One coin of Constans as Augustus, *Victoriae DD AUGG QNN*.

One coin of Valentinian. Rev. *Gloria Romanorum*. A.D. 367-.

Coin of unknown emperor. Rev. *Securitas leaning on column*.

Coin of the family of Constantine, nearly illegible.

April. Reported by Dr. Kenyon as found on Sutton Walls. Silver denarius (worn), possibly legionary coin of Mark Antony, B.C. 31.

Vespasian (?) A.D. 69-.

Commodus. P.F. Aug. Brit. P.P. Rev. *Fidei Coh (ortis)*. A.D. 186-7. R.I.C. 496. (See Collingwood, *Roman Britain*, p. 151.)

Carausius. *Pax*.

Constantine I. Rev. *Victoriae laetae*. c. 335 A.D.

April 9th. Dug up at Merryhill Crescent, Hunderton, by Mr. G. Hirst.

Tetricus I. Rev. illegible.

Claudius II. *Consecratio*. Altar. R.I.C. 261.

Constantine I. *Constantinopolis*.

Constans Aug. *Victoriae DD AUGG QNN*. T.R.S. Mint of Treves.

Constantius II as Caesar. *Gloria exercitus*. T.R.S. Mint of Treves.

Constantine II as Caesar. *Gloria exercitus*. S.L.C. Mint of Lyons.

Theodora. *Pietas Romana*. A.D. 292.

Arcadius *Victoria AUGGG*. A.D. 395. This is the latest Roman coin found in Hereford or Kenchester. Constantine took the legions to Gaul in A.D. 407.

1953. Found by Dr. Malkin at Camp Farm, Brockhampton. Constantine I. *Sarmatia Devicta*. Two captives prostrate before the labarum. A.D. 325.

September 19th, per Mr. I. Cohen. Found by Mr. R. T. Palmer east of Coningsby Hospital a few yards north-west of the new school canteen building.

Constantine I. *Urbs Roma*. Rev. Wolf with twins. A.D. 330.

October. Reported by Mr. A. E. Brown, 73, Hampton Dene Road, Tupsley, as found in Kenchester.

Elagabalus (?). Fragment of plated denarius, A.D. 218-22.

Tetricus II as Caesar. *Spes publica*. A.D. 270.

Barbarous radiate. Rev. Sacrificial jug. Probably of the same period.

Claudius II. *Consecratio*. Altar. A.D. 270.

Carausius (British Emperor). *Pax Aug.* A.D. 287-93.

Carausius. Rev. illegible.

Constantine II. *Urbs Roma*. Wolf and twins. T.R.S. Treves. A.D. 330-7.

Constantius II as Caesar. *Gloria exercitus*. T.R.P. Treves 317-337.

Crispus Caesar. *Caesarum nostrorum*. Vot. X. SIS, Siscia. A.D. 317-326.

Constans as emperor. *Victoriae DDNN AUGGG*. A.D. 337-350.

Two Valens. *Securitas Reipublicae*. Victory carrying wreath. A.D. 364-378.

Valens or Valentinian. *Securitas Reipublicae*. Victory carrying wreath. A.D. 364-378.

Valentinian I. *Gloria Romanorum*. A.D. 364-375.

Also found in Ariconium.

Constantine I. *Constantinopolis*.

BRITISH

January 19th, per Mr. I. Cohen, from the old manor house, St. Owen's Street. Found by Mr. A. J. Phillips, in charge of demolition. Elizabeth. One shilling, 1592. Obv. *Elizab. D.G.*

Ang. Fr. et Hib. regina. Rev. Shield with lilies and lions.
Deum posui adjumentum meum.

William III. Halfpenny, 1697.

George I. Halfpenny, 1720.

George II. Two Halfpennies, 1733.

George III. One Farthing. Five Halfpennies.

March 27th per Mr. I. Cohen (from Mr. S. Davies). Metal token from Fownhope with tradesman's initials, I.T. (19th Century).

May 20th, per Mr. I. Cohen. Found by excavators when digging trench east of Girls' High School, Hereford.

William III. Halfpenny.

REPORT ON BOTANY FOR 1952

By A. E. W. SALT, M.A.

This report consists of a summary of the observations recorded by the Herefordshire Botanical Society during 1952. The observations have been made both by individuals and during expeditions; these latter were planned to visit plants of interest at stations where they were known to occur and to explore comparatively unknown country. Expeditions of a more educational nature were also held to study grasses and the larger fungi.

1. NEW RECORDS FOR THE COUNTY

Campanula glomerata (Clustered campanula) has been reported from two places in the same area. Neither has been confirmed, but one at least is on good authority.

Calystegia sylvestris. The introduced form of the larger bindweed was reported in Watsonia by Mr. Hallet as growing near Longtown in 1947. It was found this year in Hereford city and the identification was confirmed at Kew.

Medicago foliata var. *diffusa* (Sickle medick). Two plants of this "casual" were found on the banks of the Wye. One plant of *Medicago foliata* was found in 1845 but has not been reported since.

Calamintha acinos ((Basil-thyme) has been reported as occurring occasionally in one area.

Cuscuta epithymum (Dodder) growing on thyme has been known for some years in one place.

2. NEW STATIONS FOR RECORDED PLANTS

Helleborus foetidus (Stinking hellebore) and *Helleborus viridis* (Green hellebore) have both been reported from around Bredwardine.

Trollius europaeus (Globe flower). We were delighted to find a new station for this plant which is disappearing with the drainage

of suitable places; the only other recent record is from the Black Mountains.

Menyanthes trifoliata (Buckbean)—a new station in the centre of the county.

Genista anglica (Needle whin) is reported from one station only, to date.

Pinguicula vulgaris (Butterwort) was found in the same bog with *Cirsium pratense* (Meadow thistle).

Ophrys muscifera (Fly orchid) has been known in a new station for several years—only three or four plants—previously only recorded on the Downards where it is now believed to have been destroyed by quarrying.

Ophrys apifera (Bee orchid) has been reported from the Black Mountain area.

Epipactis palustris (Marsh helleborine). Another plant, that is dying out due to agricultural drainage, was found in a new station along with its usual companion *Gymnadenia conopsea* (Fragrant orchid).

Orchis morio (Green winged orchis) is becoming more rare as old pastures are being ploughed up, but was found in considerable quantity near Hereford.

Spiranthes autumnalis (Lady's tresses). Two new stations have been found.

Fritillaria meleagris (Fritillary). An unchecked report from Ross—rather doubtful.

Ranunculus lingua (Greater spearwort) grows in quantity in Moccas Park, but a new station was reported this year.

Nepeta cataria (Catmint) was found near Wellington. Two other stations of recent dates are known.

Senecio viscosus (Stinking groundsel). Two separate records were sent in—several plants in each case.

Silene anglica (English catchfly). Three plants were found near Fownhope.

3. PLANTS PERSISTING AT OLD STATIONS

Asarum europaeum (Asarabacca) continues to flourish at its one station.

Lathyrus sylvestris (Everlasting pea) was found growing luxuriantly near Wellington and Dinmore Manor—probably the stations mentioned in the *Herefordshire Flora*.

Myrrhis odorata (Sweet cicely) reported by Ley as growing near a river, Escley valley, is now abundant all along the stream.

Geranium versicolor (Pencilled geranium) was found "well established" along several yards of roadside near Llanveynoe church and is another persistent record noted in the *Flora*.

Dianthus armeria (Deptford pink) persists in its old station near Mordiford and has been found in another part of the district.

4. "CASUALS AND ESCAPES"

Sisymbrium orientale. One plant found in Hereford. Odd plants have been reported from waste ground in Hereford for some years.

Camelina sativa (Gold of pleasure)—quite a number of plants in one place; all were finally buried under rubbish and are not likely to have seeded.

Hesperis matronalis (Dame's violet). This escape is reported to establish itself rarely. It has been reported from five different districts and observations will be kept on some of them to see if the plants persist.

5. OTHER PLANTS OF INTEREST

Catabrosa aquatica (Water whorl-grass) is reported as becoming rare in this country owing to field drainage, etc. Three stations near the Wye were found, two of them on flood level and it is hoped safe from destruction.

There is also one report from Colwall and another from Eardisley. Two unusual forms of common plants were found:—

Stachys sylvatica (Hedge woundwort). A green flowered form, growing luxuriantly near Tedstone Delamere. A similarly described plant is recorded for King's Capel by Ley. A pale pink flowered form was found at Mordiford.

Convolvulus arvensis (Bindweed). A handsome colour variation—a dark red ring with a light coloured outer circle—was found in quantity near Wellington.

REPORT ON BOTANY FOR 1953

By B. G. F. LEVY

The Herefordshire Botanical Society has been in existence for three seasons and the general indication is that it is slowly making a mark on its object—that of revising the 19th century County Flora of Purchas and Ley. On the card-index there are records for some 850 species; some of these cards have entries for most districts in the county and some are still incomplete. However, a great deal of specialised work remains to be done before the recording of the "critical" groups can be completed; help for this will be needed from specialists at Kew and elsewhere.

Several members are covering limited areas and are sending in detailed lists. These areas include: Whitbourne and Tedstone, Ewias Harold, Fownhope, Ledbury, and the Malverns. Useful lists have also been received from Brampton Bryan and Eastnor schools. Details of the main finds for the year are given below. In this list a number is given to each record to indicate in which district it was found; these districts correspond with those into which Purchas and Ley sub-divided the county. They are as follows:—

- | | | |
|-----------------|---------------|---------------------|
| 1. St. Weonards | 6. Frome | 11. Kington |
| 2. Ross | 7. Hereford | 12. Pembridge |
| 3. Woolhope | 8. Weobley | 13. Golden Valley |
| 4. Ledbury | 9. Leominster | 14. Black Mountains |
| 5. Bromyard | 10. Aymestrey | |

THE MAIN RECORDS FOR 1953

1. PLANTS NEW TO HEREFORDSHIRE

Trigonella ornithopodioides (Birdsfoot trigonell) 4.

Found on the Malverns, but probably disappeared by now.

Stellaria apetalata (Petallless chickweed) 4 and 7.

Allium vineale, var. *capsuliferum* (Crow garlic) 5.

This variety has pink or white flowers and no bulbils and is rare in Britain. According to Ley, the usual Herefordshire form is var. *compactum*, which only bears bulbils, and is common on the Lugg meadows. A rarer form is var. *vineale* which has bulbils and flowers and grows on the roadside in Hampton Park.

Adiantum capillus-veneris (Maidenhair-fern) 4.

This plant has been growing under a railway bridge for many years. It is normally a coast fern, rare and very local, but also found rarely as an escape on walls, etc., elsewhere.

2. NEW STATIONS FOR RECORDED PLANTS

Solidago virga-aurea (Golden-rod) 13.

Anagallis faemina (Blue pimpernel) 4.

Erigeron acris (Blue fleabane) 4.

Campanula trachelium (Nettle-leaved campanula) 13.

Menyanthes trifoliata (Buckbean) 10.

Asarum europaeum (Asarabacca) 4.

Monotropa hypopitys (Yellow birds-nest) 4.

Hippuris vulgaris (Mare's-tail) 3.

3. OTHER PLANTS OF INTEREST

Epipactis sessilifolia (Violet helleborine) 5.

This rare helleborine is perhaps the most important record of the year and was found in some quantity in private ground near Tedstone. There is a record of it at Gaines in 1882.

Antennaria dioica (Cat's-foot) 2. Found on the Great Doward.

This was recorded in 1892 as a rare mountain plant.

Scrophularia umbrosa (Figwort) 5. This is a rare species but is growing fairly plentifully on the River Teme and the Sapey brook.

Inula helenium (Elecampane) 5.

Hesperis matronalis (Dame's Violet) 5.

Pulmonaria officinalis (Lungwort)

5 and 2

These three plants are all doubtfully native but are well established in the Whitbourne area.

The lungwort was also found in Caplar wood.

Dipsacus pilosus (Small teasel) 5. This is the dominant plant in places along the Sapey brook.

Triglochin palustre (Marsh Arrow-grass) 12 and 13.

Polygonum bistorta (Bistort) 13.

Pedicularis palustris (Upright red-rattle) 13. It is recorded in the Flora as "rather rare" and this is the first recent record.

Equisetum telmateia (Giant horsetail) 5 and 8. Both records from old stations, on the Sapey brook and Wormsley golf course.

Equisetum sylvaticum (Wood horsetail) 10, 13 and 7.

Corydalis solida (Pink corydalis) 3. Naturalised in the Dor-mington area.

Epipactis palustris (Marsh helleborine). A third station has now been found.

Sanguisorba officinalis (Great burnet). Only one record has been received for this plant, but it would be surprising if it were actually as rare as this.

ORNITHOLOGY

By H. A. GILBERT and C. W. WALKER

The year has brought reports of a number of rare visitors to the county, including the crossbill, the hoopoe, the great grey shrike, the osprey, the whooper swan, the gadwall, and the Manx shearwater.

The crossbill was sought for, as it had been seen in some numbers this season elsewhere in Britain, and found in small flocks at Berrington and at Henwood by Mr. S. M. D. Alexander in November and December. Other flocks were seen at Staunton-on-Arrow and Wapley Hill by Miss J. M. Edwards.

A hoopoe was seen on the county boundary at Brilley mountain on 19th June by Professor J. H. Hutton.

A great grey shrike was seen near Peterchurch and watched at close quarters by Mr. L. A. Knight and a friend. The bird perched characteristically in the tops of high thorn-bushes, and flew from bush to bush.

An osprey was seen by A. Edwards and G. Tong flying over a pool at Staunton-on-Arrow on 13th May. Another was seen to swoop down above the Lugg at Hampton Bishop on 24th May by Dr. C. W. Walker, and then to resume its northward journey pursued by excited curlews.

Mr. G. S. T. Diggory identified two whooper swans of which he obtained a very close view at Broadward, Leominster, on 18th April, and he also heard them utter their musical note.

Commander Kyrle Pope shot a gadwall which rose from a pool in Homme House grounds on 31st December. The bird was alone, and proved to be a female bird. This is the first certain record of the occurrence of this species in the county.

It is probable that the quail comes to the county annually. This year it was heard calling its triple call on farms in Shobdon and in Staunton-on-Arrow parishes. In the latter area two birds were repeatedly seen in August and September by Miss Edwards.

Another annual visitor, the hobby, nested in at least one area. A pair was seen on 16th May, and on 21st June Capt. H. A. Gilbert saw the birds mating in a field nearby. The nest was found by Dr. Walker in a neighbouring wood in an oak tree on 21st July, and the young fledged successfully. Our thanks are due to the landowner and his keeper for the protection of these birds, though we may not mention names for fear of betraying the locality.

Similar reticence must be observed in the case of another gentleman, who reports that for about ten years his meadows—in central Herefordshire—have been the winter haunt of a flock of 60–100 white-fronted geese. He affords the birds complete protection and freedom from disturbance on his land. It is a matter of most unusual interest to be able to record an inland wintering-ground of wild geese, and we are deeply grateful to their protector.

The Canada geese again attempted to nest at Bampton Bryan this spring but were driven off by swans.

Note: We are greatly indebted to Mr. R. H. Baillie, Editor of the Herefordshire Ornithological Club's Annual Report, for a number of the above records.

BOOK REVIEWS.

The Conquest of Wessex in the Sixth Century. By GORDON J. COPLEY. Published by Phoenix House. Pp. 240; 12 plates; 10 maps. Price 30s.

The purpose of Mr. Copley in this book is to see how the latest archaeological information, combined with the study of place names, can support the account of the conquest of Wessex given in the *Anglo-Saxon Chronicle*. The period of the study, which is one of the darkest in our history, extends from the landing of Cerdic and Cynric in 495 till the battle of Wodnes Beorg in 592. The area covered is from the landing on the shores of Southampton Water, northwards to the watershed between the Thames and the Fenland rivers; westwards to the Severn Sea, and eastwards to the borders of Kent.

The early presence of English raiders is deduced from the 'ingas' and heathen place names. Areas in which pre-English names are common indicate the areas where British rule persisted. The author makes a careful study of the grave goods found in Saxon cemeteries, so as to find which were the earliest settlements.

In the end the *Anglo-Saxon Chronicle* is vindicated, being supported by the Archaeological data; but it does not tell the whole story. Written to record the prowess of the Gewissan ruling family, it ignores the earlier settlements in the Thames Valley which came by the Icknield way and up the river.

This is a stimulating book and shows what a lot can be found out about one area and one period if all sources of information are brought together. The illustrations and the maps are of great interest, though the latter, which are scattered about in the letterpress, are not easy to find for quick reference. A general map in the end papers would have been an improvement.

Useful appendices give lists of the cemeteries and place-names, and a good bibliography.

T. W. M. J.

Archæology. By S. GRAHAM BRADÉ-BIRKS. Teach Yourself Books. Eng. University Press. 1953. Pp. 220; illus. Price 6s.

No better book for a beginner, or for even more advanced students of archaeology than this has appeared. Twenty-three chapters cover pre-history,

the art of excavation, Roman and later Britain, architecture from early days to the 14th century, Anglo-Saxon art, written records, heraldry, and place-names. It is astonishing how much information has been given in so small a compass. The numerous illustrations will be of great assistance to readers and there is a bibliography of useful books at the end of each section.

F.C.M.

WOOLHOPE CLUB LIBRARY. ADDITIONS, 1952 to APRIL, 1954

- 091.42 Copy of the boundaries of the County of Hereford. "Ex Bundell incerti temporis Regis Henrici tertii num. 1550." MS.
- 274.244 Photostat of Papal bull of Innocent II sent to Robert de Bethune, bishop of Hereford 1131-1148, confirming the rights of the cathedral.
- 352.2 Essex Archaeological Society. Essex Sessions of the Peace 1351, 1377-79. Ed., with intro. by E. C. Furber. 1953.
- 580.6 Curtis's Botanical Magazine, or flower garden displayed, etc. Conducted by Samuel Curtis; the descriptions by Wm. Jackson Hooker. New Series, vols. 1 to IV, 1827-30. Col. pls., 8vo.
- 595 Label list of British lepidoptera. Latin and English names. 1929.
- 595.78 Westwood (John Obadiah). British moths and their transformations. Arranged and illustrated by H. N. Humphreys. With characters and descriptions by J. O. Westwood. New ed., rev. and cor., 2 vols. 1857. Col. plates.
- 622.341 Hart (Cyril E.). The Free miners of the Royal Forest of Dean and Hundred of Briavels. 1953.
- 682 Adams, (A.) The History of the Worshipful Company of Blacksmiths. 1951.
- 709.42 Boase (T. S. R.). English art 1100-1216. pls. illus. 1953. Vol. III of the *Oxford History of Art*.
- 728 Morgan (F. C.). Domestic architecture of Herefordshire. illus.
- 738.42 Rackham (Bernard). Mediæval English pottery. 1947. illus. *Marshall Collection*.
- 748.5 Hamand (L. A.). The Ancient windows of Great Malvern priory church. illus. 1947.
- 821.9 Rudland (E. M.). Ballads of Old Birmingham and neighbourhood. 1953 (?).
- 821.9 Hereford song and Ross-on-Wye. 1953.
- 912 Royal Geographical Society. The World Map by Richard de Haldingham in Hereford Cathedral circa A.D. 1285. With memoir by G. R. Crone. 10 large plates. 1954.
- 913.03 Birks (S. Graham Brade-). Teach yourself archaeology. illus. 1953.
- 913.42 Ancient Monuments Society. Reports 1953. illus.
- 913.4231 The Wiltshire Archaeological and Natural History Society, 1853-1953. A centenary history. 1953.
- 913.4252 Thoroton Society. Transactions of the Thoroton Society, 1922-1928. illus.
- 914.244 Harley Manuscript No. 1473. Photostat copy, with typescript, of notes by a visitor to Herefordshire and to the Roman wall in Northumberland in 1574.
- 914.272 British Association. A Scientific survey of Merseyside. Prepared for the meeting in Liverpool in 1953. maps, plans, illus.
- 920 Skippe (George). The Diary and note book of George Skippe of Ledbury. c. 1662-1690. The original manuscript.
- 929 Whitmore (J. B.), compiler. A Genealogical guide. An index to British pedigrees in continuation of Marshall's *Genealogist's Guide*. 1953. *Marshall Collection*.
- 942.44 Salt (A. E. W.). The Borough and honour of Weobley. illus. 1954.

Woolhope Naturalists' Field Club PAPERS, 1954

PRESIDENTIAL ADDRESS

By I. COHEN, M.I.Mech.E.

It is, I believe, an accepted theory amongst anthropologists that many present-day customs are relics of practices of ages long past. Our May day festivities are relics of ancient fertility rites, our annual seaside holidays may be reversions to the primordial living places of our extremely remote ancestors, and many of our present superstitions can be traced to prehistoric totems and taboos. Even now, before the sedate members of the Woolhope Club, a certain rite is performed annually, the origin of which I can only ascribe to the now defunct custom of a criminal addressing the mob assembled to witness his execution. This rite, as you may have guessed is that of the retiring President "favouring" the Club with an address before retiring into what may be well deserved obscurity.

Before dealing with the proceedings of the past year I must refer to the sad losses the Club has sustained since our last Annual Spring Meeting. Such losses are inevitable in a society that in the nature of things has a large proportion of middle aged and elderly members, but I must refer to two particularly regrettable losses, those of Mr. P. J. T. Templer and Capt. O. B. Wallis. Mr. Templer was our President in 1944 and 1945 as well as Treasurer for several years. Of Capt. Wallis much may be said of his many activities, professional, social, musical and sporting; for the moment let me remind you of his Presidency in 1949 and of his valuable work on the Central Committee for a number of years.

Outstanding events during the year were the Coronation of our Queen Elizabeth and the admission of ladies to Club membership. The first gave us universal joy and most of us anticipate that the second will add to the overall well-being of the Club. Time alone will tell.

As the volumes of the Club's *Transactions* give details of its meetings there is little point in my making lengthy references to them.

Apart from its normal activities the Club has co-operated with the Council for the Preservation of Rural England and other bodies in attempts to secure a nature reserve for Herefordshire, the preservation of the pigeon house at Netherwood, and the prevention from

demolition of the premises in High Street proposed by a firm of multiple shop keepers, success having been attained in the two last instances. No final decision has yet been made regarding the suggested nature reserve.

My next task is to "favour" the Club with such observations as I may deem conducive to the welfare of the Club and the promotion of its objects. In Great Britain the first observation normally made to anyone is about the weather. So let me start in a normal manner and talk about the weather. In the past we have been fortunate in the possession of some painstaking meteorologists, particularly Mr. Henry Southall, who for many years filled pages of the *Transactions* with imposing columns of figures relating to rainfall and barometric pressures, periods of sunshine and other details. For some years past no member has come forward to continue the good work, but in case some volunteer appears may I make one or two suggestions. One is that charts give a much readier method of comparison of statistical information and show tendencies at a glance without mental gymnastics. At any rate this is my experience after almost a lifetime of dealing with figures. By comparison of a series of graphs it may be possible to establish some cycle of weather tendencies in relation to observed facts of natural history.

Thus a daily weather chart combining temperature, rainfall, duration of sunshine and strength, with direction, of wind might be compared with a list of the dates of arrival of certain birds and their approximate numbers. A chart of rainfall for a certain month may be compared with the deposit of frog spawn in certain ponds. Another comparison may be made with the germination of various crops and resultant weights.

As there may be some connection between weather and the period of sunspots it seems strange that the activities of the Club have never included astronomy as such. True we have had papers dealing with the effects and heights of tides in the Wye and Severn, and, as we all know, the tides are dependent on the relative positions of sun and moon. Another item, this time of an archaeological nature, may be dependent on astronomical considerations, namely the orientation of certain prehistoric erections. In some parts of the kingdom we have the phenomena of ebbing and flowing wells, probably due in some cases to a modified form of tidal influence (though other influences, such as internal natural syphons, may be at work). This brings us to a tradition relating to the sowing of seeds during the waxing or waning of the moon. Have any serious experiments been made to test whether there is any foundation for the tradition? Maybe there is a minor periodic flow of sub-surface water due to tidal influence and if so the phase of the moon would be significant.

Recently there has been published a brochure describing the merits of a certain watch with a special moon dial and giving the

best lunar times for sowing seed (5th to 15th days after the new moon), fruit picking (the last three days before the new moon), mushroom picking (from the eighth day after the new moon), fishing by night and day, and hatching chickens or slaughtering animals.¹

Two apposite traditions may be quoted. "Pigs must be killed in the waxing of the moon rather than the waning so that the flesh may not shrink in the cooking." The other tradition dates from about 1664. "Kill swine in or near the full of the moon and the flesh will better prove on boiling."

Have we any authentic records of the fall of meteorites in the county? Investigations have been made regarding a supposed meteorite in the Bosbury district but up to now without any definite result. After all, if astronomy is not to be regarded as part of the Club's work, why has a star been inserted on the Club's badge?

I started this talk with a few words on anthropological theories so let me speak now about local traditions, in the first place dealing with that of the burial of John of Kent half within and half without the church at Kentchurch. During his lifetime he was supposed to have had dealings with the devil, who in return for services rendered had agreed to possess him whether he was buried within or without the church. But this is not an isolated example for it is recorded that Piers Shonks, Lord of a manor in Pelham, Hertfordshire, a noted snake killer of a much earlier date, killed a dragon that had been under the immediate protection of Satan, whereupon the devil vowed to have the body of Shonks whether he be buried within or without the church. Accordingly the wily Shonks arranged for burial under the church wall itself. Another instance is in Tremerchion, in North Wales, where Daffyd Dhu is so buried, he having bargained with Satan for permission to practise the Black Arts during his lifetime. At Aconbury there is a legend that Roger de Clifford is buried neither in nor out of the church. There was a human skeleton in the wall of Holsworthy church, Devon. Other instances are quoted in Clavering, Essex, and in Rouen Cathedral. Is it conceivable that there is any connection between these and similar cases and the ancient practice of burying a live person in the foundations of a new building, a pagan custom which survived in Europe into early Christian times, when it is alleged that such sacrifices were even made in the foundations of churches? An example is said to be that of the Round Tower at Glendalough in Ireland.

In the wall of Durness church, on the north coast of Scotland, is buried Donald MacLeod who had been taunted by an old woman who swore she would dance on his grave.

¹ Baume & Co. Ltd., 1 Hatton Garden, London, E.C.1. *Horological Journal*, February, 1953. "The 'Heuer Solunar' watch."

An adjacent inscription reads:—

"Donald Mhic Mhorchaidh Heir lys lo
Vas il to his friend, var to his fo
True to his maister in veird and vo."

Traditions of underground passages are familiar to most of us, but very few bear investigation. Only a few authentic passages are known to me personally, there being one with extensive ramifications beneath Nottingham Castle, in one of which Roger Mortimer, Queen Isabella's favourite, was captured about 1330. Here many passages are cut in a soft sandstone, emerging in the vertical face of a cliff. Locally we explored one for about 50 yards near Gladestry but it appeared to be only an attempt to reach a local spring. A very short one exists at Eye Manor but this may have been an all-weather route from one building to an outbuilding.

Allied to excavation is the matter of wells and as we are dealing with superstitions and practices we come to the subject of curative and wishing wells. Apart from St. Ethelbert's well, the miraculous properties of which contributed largely to the building of Hereford Cathedral, but which dried up some few years ago in consequence of nearby building operations, we appear to have had very few in or near the county. Amongst these may be counted one at Peterchurch, the Crooked Well near Kington, the Holy Well at Pilleth and St. Anthony's Well near Cinderford. The last named exercises its curative properties in early May, the patient paying nine successive visits for skin diseases and twelve for rheumatic complaints.

St. Euny's well in Cornwall also demands three immersions on the first Wednesday in May, specialising in crippled and maimed children. In this case the child must drop a pin in the well before entering.

The well at Madron, Cornwall, was originally visited on the first three Sundays in May, but now only on the first, the original three immersions being replaced by the dropping of two pins. On the south-east side of the Wrekin is a crag with a small hollow containing water. It is lucky to drop a pin in it and spit.

Numerous wishing wells in other parts of the country are most efficacious when visited in May, in nearly all cases the ceremony of pin dropping having to be observed.

Here we have two features worthy of attention, those of visiting in May and the dropping of pins. The probable explanations are that the first is connected with ancient fertility rites and the second has some connection with the superstition that evil spirits are deterred by the presence of iron, a possible further explanation being that iron was the material used by invading conquerors and proved superior to bronze or stone as a weapon. Nevertheless a wishing well on an island in Loch Maree had an oak tree beside it into which it was the custom to drive copper coins edgewise.¹

¹ Illustrations appeared in *The Field* in 1955 and *Country Life* in 1955.

On this island St. Maelrubha founded a little church and his memory became confused with the well, also with an ancient rite of sacrificing bulls, the latter being last recorded on 6th Aug., 1678, the bull's head becoming a perquisite of the local smith. Here we may have an example of consecutive superstitions, iron replacing bronze, which in turn replaced flint.¹

Now let me leave the depths of speculation and reach the solid shores of scientific knowledge. We all know that recent research in nuclear physics has been responsible for the production of methods of destruction. Many of us know that in the near future we may have useful sources of energy available for instruments of construction. But we have already to hand some most useful instruments of instruction, and these should prove invaluable in certain directions of great interest to the Woolhope and similar Clubs, particularly their geological, palaeontological and archæological members.

Certain mineral substances are radio-active, the emanations having a definite half life, giving out measurable, if minute, quantities of helium, from which the age of the mineral can be calculated since its formation in a solid state.

Organic matter contains carbon of an atomic weight slightly greater than normal carbon and whilst alive these two forms of carbon are interchanged in the atmosphere and maintain a balance. The radio activity of the heavier carbon decays after death at a definite rate, losing half its activity in 5,000 years, the rate of decay being constant. Thus by measuring the present activity, the age can be calculated within small limits and the process is practicable for a range of from 1,000 to 50,000 years. As the specimen is destroyed in the test the scope of use is naturally somewhat limited.²

For bones and teeth there is a fluorine content method, the basis being the progressive conversion of a constituent, hydroxyapatite into fluorapatite, $[3(3\text{CaOP}_2\text{O}_8)\text{CaF}_2]$, at a rate dependent on the concentration of fluorine in the soil water. It is a comparative test only and does not give absolute results. Another method is by measurement of the nitrogen lost by bones at a relatively slow but constant rate.³

Coins can be analysed by X-ray spectrographic methods, characteristic secondary X-rays emitted being allowed to fall on a rock-salt or calcite crystal mounted on an automatic scanning and counting spectrometer. The sensitivity to any component metal is about 0.2 per cent.⁴

Of recent years visits to churches and historic buildings have formed a large part of the time spent on Field Meetings. Members

¹ An ecclesiastical enquiry followed. See Mould, D.D. C. Poch in *The Road from the Isles*, 1950, p. 14.

² *Physical Review*, Vol. 69 (1946), p. 671; Vol. 72 (1947), p. 931; Vol. 73 (1948), p. 350. *Science*, Vol. 105 (1947), p. 576.

³ Weiner, Oakley and Le Gros Clark, *Bulletin of the British Museum (Natural History)*, Vol. 2, No. 3 (1953).

⁴ E. T. Hall of Clarendon Laboratory, Oxford University.

and others are acquiring the desirable habit of reporting suspected antiquities to the Club, so that investigations have become more frequent and the results are published in our *Transactions*. But much remains to be done in the way of excavations for which the Club is ill equipped financially. Not that indiscriminate digging is desired, for all such work should only be carried out under expert supervision.

Earlier I commented on attempts to preserve some ancient buildings. But building preservation is by no means a modern praiseworthy idea for in the buried city of Herculaneum there was found on a wall a brazen tablet exhibiting a Senate decree forbidding destruction of ancient buildings for the sake of obtaining material and inflicting heavy money penalties for infringement, the act having been passed in the consulships of Hosidius Vega and Lucius Vagellius, under the Emperor Claudius.

Almost ever since the inception of the Club and for many years afterwards measurements of trees have been taken, so that now seems to be the time to re-measure such as are still standing. After a lapse of from 20 to nearly 100 years the difference in girth should be very appreciable and much benefit to silviculture and the timber industry in general would result if the growth of these trees were analysed and published. Here is work that could be made part of every field meeting even in the absence of an expert botanist. The collated figures could then furnish a basis for the annual rate of growth.

Now that botany has been mentioned there seems further food for study. It is true that nowadays some attempt has been made to determine the ecology of certain plants, mainly by dividing them into lime loving or otherwise, but apart from geological considerations there are man-made disturbances of habitat. What has been the effect of the present-day use of artificial manures and what has been the result of wind blown manure dust on neighbouring land? Study might well be made of the effects of moisture and shade in places like the Downton Gorge, protection from east winds on the Herefordshire side of the Malverns and exposure to north and east winds on the Black Mountains, the clearing of woods, the introduction of grazing animals, and the increase or decrease of the rabbit population.

By the same token it may be as well to examine the results on bird and other forms of life by agriculture and particularly the removal or excessive trimming of hedges, land drainage, killing of birds of prey, the laying out of airfields, roadmaking, scattered buildings and other disturbing features.

One thing leads to another and, having mentioned roadmaking, there seems scope for the Club to make further attempts in tracing ancient tracks, British, Roman, Saxon or drovers. On several occasions I have had pointed out to me certain tracks or vestiges of tracks that may come into any of the above categories, but have

not had sufficient expert knowledge to either confirm or deny their authenticity. Apart from ancient roads there arises the need to keep trace of modern alterations such as road widening or straightening, bridge making, or the demolition of old buildings to facilitate road alterations. In the past we had an expert in the late Mr. G. H. Jack, a past president, who had the inestimable advantage of being responsible for the maintenance of the county bridges, many of which he improved to carry the heavier traffic of the present day without detracting from their former graceful appearance. No doubt we have photographers amongst us who can follow in the footsteps of the late Alfred Watkins and before it is too late, make pictures of the passing of old buildings and the like. I have recently seen such records of Bristol from 1925 to 1953. The idea is not put forward as new. It was suggested some years ago by a former President.

One of the Club rules asks for the formation and publication of correct lists of the various natural productions and antiquities of the county of Hereford, with such observations as their respective authors may deem necessary. To be sure, the lists have been completed in many cases but we must have the observations as well. A list tends to become somewhat like a dictionary, but a dictionary is not literature. We must have the words selected and arranged in such a manner that a definite message is conveyed. Such work has been done in a small manner in the Woolhope Centenary volume and an extension of the methods there employed will provide years of work for present and future members.

Canon A. T. Bannister in the past did valuable work on local place names, but there is much scope for further investigation. Lord Rennell has filled in many gaps in his chapter on Hezetrete and Elsedune in the Centenary volume. With the necessary diligence and caution it should be possible to carry similar work much further. It is hoped that when old documents come to hand they will be examined not only for their historic interest, but for old spellings of names that may give clues to their derivations and in turn to more ancient history still.

It is said there are no snakes in Ireland. Is this the case in Herefordshire? With four minor exceptions no mention of reptiles has been made in the Club's *Transactions* in the last 50 years. There was mention of a grass snake in 1912 and 1927 and a slow worm in 1930. About five years ago I found an adder in my own front garden on Aylestone Hill. Is anybody sufficiently interested in snakes, lizards or batracians to bring our records up to date?

Our entomologists have still a few tasks before them, for it is not stated in a *Centenary* chapter that many groups have not yet been studied in the county? The Herefordshire arachnida and other orders in the lower forms of animal life seem to have been entirely neglected. Here is ample scope for members to do pioneer work.

What knowledge have we of the expectation of life of the majority of our local fauna? Beyond a few figures *re* squirrels and garden-haunting birds there seems to be little information available.

In aquatic life ichthyology has been dealt with in its fossil periods by our geologists and in modern times by the writer of the chapter on Wye fish in the *Centenary* volume, but as was pointed out by Mr. F. M. Kendrick in the same volume, the use of the microscope seems to have almost ceased, for investigations by Club members on the smaller denizens of our waters appear conspicuous by their absence. Perhaps I should qualify this last statement by saying that a few weeks ago the subject of algæ was discussed by the Herefordshire Botanical Society which works in close association with the Woolhope Club.

Several other items occur to me. Perhaps some member or other is already engaged in work in connection with one or more of them. Has anybody written a history of the continual warfare between man and insect? Or a history of the local pottery industry to act as a background to the practical work of Mr. J. W. B. Griffiths, whose unparalleled industry and patience are most worthy of special note? Have we a record of old or dying amusements and games in the county? Have we a collection of merchants' marks? Does there exist a complete map of local pack and drovers' roads?

Nearly two hundred years ago Gilbert White, in his "Advertisement" to the first edition of *The Natural History and Antiquities of Selborne* used words that might well exemplify the aims and objects of the Woolhope Club. "... if stationary men would pay some attention to the districts in which they reside, and would publish their thoughts respecting the objects that surround them, from such materials might be drawn the most complete county histories, which are still wanting in several parts of this kingdom."

A hundred years later, a hundred years ago, the Woolhope Club began its work. The task is a never ending one. Let each member contribute his mite.

Before concluding my observations may I add another quotation that seems apt in view of my opening remarks. "'Tis a far, far better thing that I do now than I have ever done." With these words I hand over my badge of office to a much more worthy successor who, I feel, will maintain in a far better manner than I the traditions of the President of the Woolhope Club, Col T. W. M. Johnson.

* * * *

Now that he is safely installed may I complete the quotation?
 "'Tis a far, far better rest I go to than I have ever known."

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HISTORY OF IRON WORKING IN AND NEAR THE FOREST OF DEAN

By I. COHEN, M.I.Mech.E.

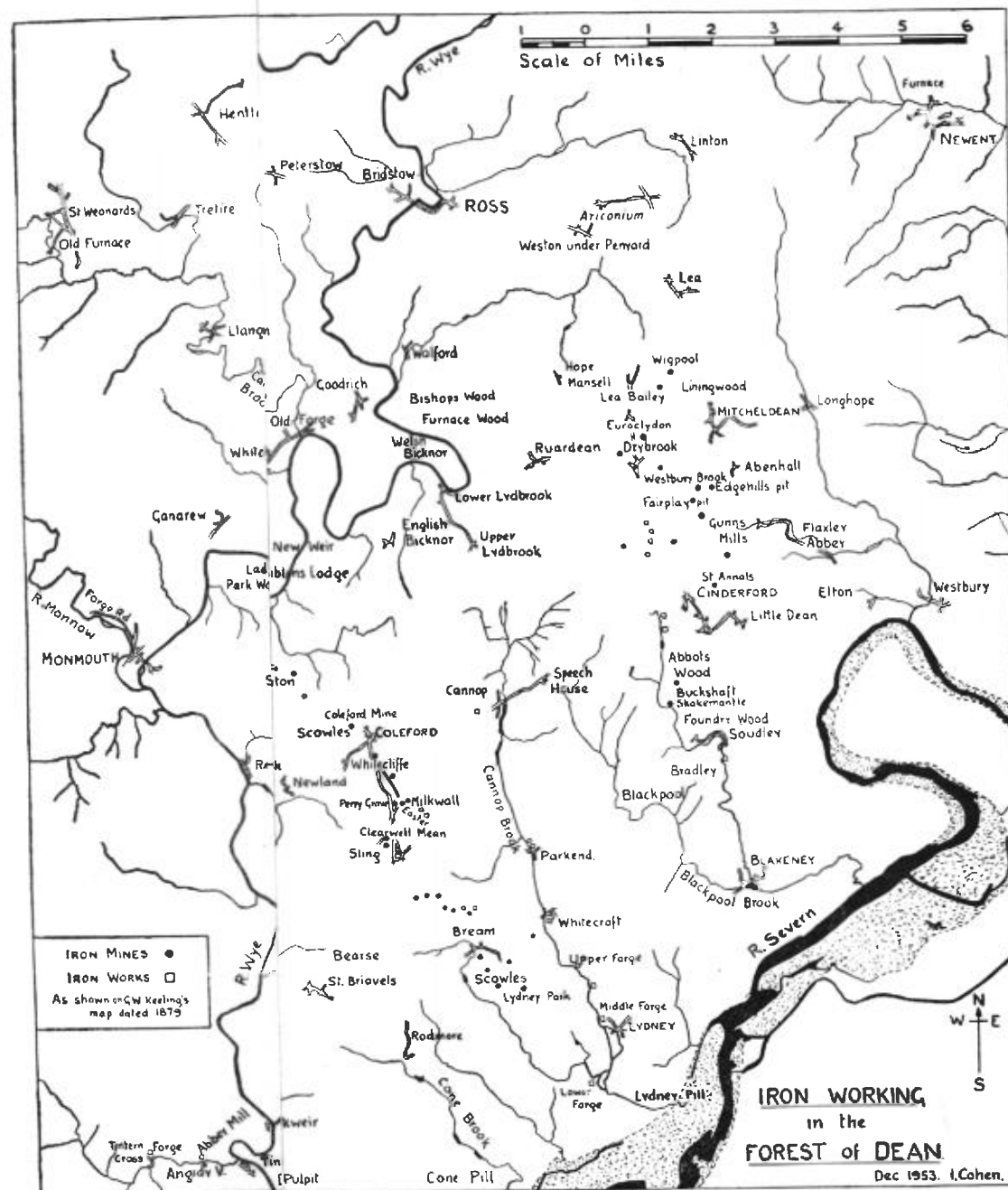
Several writers have dealt with the history of iron working in the Forest of Dean, but each seems to have concentrated his attention on a single period, or, where the whole period has been attempted, there have been numerous omissions. My purpose is to attempt to fill in these gaps and evolve a continuous history by collecting relevant pieces of information from as many sources as possible. Few pretensions are made to original investigation, but only such items are included as are documented by the writers consulted. It has also been deemed desirable to include areas, particularly in South Herefordshire, that are not within the geographical boundaries of the Forest.

The first evidence of iron mining in the Forest is on a pre-Roman site near Lydney on Lord Bledisloe's estate. The mine was worked up to almost the end of the third century A.D. when it was closed by the erection of a hut across its mouth, this in turn being covered by a post Roman earthwork.¹³ (A photograph of this appeared in the *Times* of November 16th, 1929.)

In his address to the Bristol and Gloucestershire Archaeological Society in 1929 Lord Bledisloe said that in Lydney was the most westerly development of the iron industry in prehistoric times that had yet been discovered. There were iron mines in Lydney itself on the hill plateau. The miners had lived in wattle and daub huts with dry-built sleeper walls and stone flagged floors. After the Romans left the mines were filled in and many of the huts were removed.¹⁰

In his report on excavations near Lydney in 1932 R. E. (now Sir) Mortimer Wheeler mentions the clearing of a hut floor which disclosed an iron mine not later than the third century A.D. This is the first British iron mine that can definitely be attributed to the Roman period.¹⁷

Under Roman management iron mining continued up to the beginning of the fifth century, its most flourishing period being from A.D. 250 to 360. Excavation was of the surface type, the rock matrix being split by iron wedges driven by hammers. Lighter ore removal was by pick, or hammer and chisel; iron workings at Lydney and Coleford still show traces of chisel marks. In some cases quick lime was placed in crevices and the addition of water expanded the lime and split the rock. Fire was also used for the same purpose. The ore was gathered in baskets with scrapers and



shovels, the latter being more or less heart shaped, about nine inches wide and made of oak.¹³

Occasionally short tunnels or adits were made, sometimes sloping, entry and egress being made by a rudimentary form of ladder consisting of a notched oak beam. Some of these have been discovered, but it is probable they are more recent than Roman.

Remains of this open system of mining still exist in several places such as the Scowles about a mile west of Coleford, half a mile south of Bream, at Dean Pool, Perry Grove Wood, Abbots Wood, in Lydney Park and near the Devil's Pulpit about a mile north-west of Tidenham. This last place must not be confused with another "Devil's Pulpit" situated in the "Devil's Chapel" in the Scowles near Bream. The name Scowles is probably derived from a Celtic word "Crow" or perhaps a Welsh word "Crowll", in either case meaning "cave". Coins, tools and other objects show that the mines were worked over a long period. Traces of cinder heaps containing appreciable quantities of iron are frequent and many Forest lanes are composed partly of material removed from these heaps.¹⁷

The *Archæological Journal* for 1877 gives a list of places that abound with scoriæ and cinders, including the parishes of St. Weonards, Hentland, Peterstow, Tretire, Bridstow, Weston-under-Penyard, Llangarren, Walford, Goodrich, Welsh Bicknor, Ganarew and Whitchurch. Some of these parishes of course are not strictly within the Forest, but are close enough to be included in any account of its iron working industry. They were possibly the sites of furnaces in Saxon times (*W.C. Trans.*, 1923, p. 195).

Hand bloomeries with imperfectly smelted ore have been found on Peterstow Common with beds of cinders in some places several feet thick. A Roman mine entrance exists on the side of the Great Doward. The capital of this district was probably Ariconium, but as the Woolhope Club *Transactions* have dealt more or less fully with Ariconium no details will be given in this paper. There are some deep Roman workings on the Lining Wood Hill above Mitcheldean.⁸

To provide the necessary draught for smelting the furnaces were situated in a position to use the prevailing wind. Alternatively draught was provided by leather bags compressed and extended by hand or foot power. Since cinders are rarely met with near streams it is unlikely that water power was used.

After the Saxon invasion there seems to be only one definite record of the continuance of iron working. It is that Edward the Confessor demanded from Gloucester (hence from the Forest) 36 dicres of iron and 100 iron rods for bolts for the king's ships.⁸

Domesday Book seems to have no direct mention of the iron industry as such, but a few words indicate that it existed. Thus we have: Ferrum=iron; Bloma=bloom; Minariæ=iron mines; Ferrariæ or Ferri fabricæ=forges or bloomeries; Ferrarii=smiths;

Ferrum carrucis=iron work for ploughs. Neither is there any mention of the mineral wealth of the Forest.

There are, however, two interesting entries. "In the manor belongs a hide of land which in the time of King Edward (the Confessor) used to render 50 blooms of iron and six salmon." The place referred to is probably in the Newland valley near the Scowles at Coleford. The other entry is that Turstin Fitz Rolf held six hides at Alwintune and rendered 20 blooms of iron. This place is between the Slaughter and Hillesland on the outcrop of iron ore.¹²

It is known that shortly after its foundation in 1131 and prior to Flaxley a forge was in the possession of Tintern Abbey and that they had mines and ironworks on the west of the Wye.* The ponds in the Angidy brook were probably in part made for the purpose. There is mention in a charter of 1223 of an Abbey mill which at some later time had water wheels driving a wire drawing plant. In the same valley, but of unspecified dates were a forge (Pontysason), perhaps a blast furnace, other forges in stages lower down the valley and a nail factory with a water wheel on a site later covered by cottages built over the wheel pit.¹²

The first charter to Flaxley Abbey, granted by Henry II prior to his coronation in 1154 relates to iron working at Elton, near Westbury. His second charter describes an "iron forge" free and quit, with as free liberty to work at any of his forges in demesne, thus showing that he had several. In his reign there was a constant output of iron bars, nails, pickaxes, hammers, army horseshoes, arrows and other war products.⁸

About a mile north of Monmouth and near the left bank of the Monnow is an electricity generating station worked by water turbines. Between this building and the river is a piece of land completely covered with cinders and nearby are the remains of a comparatively modern forge. It is probably here that the fourth forge mentioned in the following extract was situated. It is from a paper read by Dr. Schubert to the Iron and Steel Institute in 1949.

"When digging foundations for the science wing of the Monmouth Grammar School refuse was found that had come from forges on the banks of the river Wye, three of which had been granted to the Priory of Monmouth in the early twelfth century by Baderon, the Norman Lord of Monmouth.

"A fourth forge was reserved for his own use and it is presumed that this is the one on the bank of the Monnow. It was taken over by King Edward I in 1257, and accounts for the first nine months of this new ownership are preserved in the Public Record Office, 'Duchy of Lancaster, Ministers' Accounts'."

* In *The Southern Marches*, H. J. Massingham states that "in the Angidy Valley iron forges and wireworks were founded in 1570 in succession to Roman iron workings. They were abandoned in 1828."

According to Mr. Hurst, the present manager of the generating station, some twenty years ago he was in conversation with a woman of 90 odd years who had lived her entire life at one or other of the cottages adjoining the site. As a young girl she remembered the place employing about 30 men. The iron ore was brought by great teams of horses from, she believed, near Coleford. The whole of the power was supplied by a very large water wheel. (The wheel site is now embodied in the present station.)

The Pipe Rolls, that invaluable source of financial information, provide much evidence of iron working in the Forest. Thus :—

In 1158 some 16s. 0d. of iron was sent to Woodstock by the King's order. In 1165 arms were sent from Dean to the extent of 60 axes, 70 picks and six hoes with 18d. of rope. In 1167 two barrels of arrows and "siege engines" were sent to Henry II at a cost of 116s. 0d. For the invasion of Ireland in 1171 by the same king and Strongbow (earl of Pembroke) William de Rudes was paid £1 5s. 6d. for shoes and nails for the king's horses, whilst Prince Henry who stayed at home received seven plates and a cauldron for the price of 11s. 6d. During the same operations Simon Croom, a military man of Warwick, supplied 2,000 picks and 1,000 spades, almost certainly made from Forest iron.

Several items are mentioned for 1172, such as 50,000 nails for 43s. 6d., 60,000 nails for 53s. 6d., 50,000 big nails for 45s. 10d., and 5,000 big nails for 6s. 8d. In the same year the King paid 22s. 11d. for 100 axes to be sent to Ireland. The Bailiff of Gloucester paid 17s. 10d. for 60,000 nails (there must have been some difference in nail sizes to account for the difference in price), and £5 for 2,000 iron spade heads. For the siege of Leicester in 1173 the Sheriff paid 33s. 4d. for 10,000 arrows and some siege engines.

From the preceding items it will be gathered that munition manufacture and mass production are no modern innovation.

Twelve years later Pagan of St. Briavels paid five marks for seisin of a forge and one mark rent of same whilst Aernulf of Blakeney paid 62s. 8d. for his forge.¹⁰

In 1188 iron for the use of the king in his journey to Jerusalem cost £8 16s. 3d.

In 1191 the Sheriff paid £33 18s. 0d. for 50,000 horseshoes with double calcins and £100 for iron for the king's ships.

In the 12th century Giraldus Cambriensis records that the Forest supplied venison and iron to Gloucester. The last item is consistent with the earlier demand of Edward the Confessor.

The Pipe Roll of the first year of King John (1199-1216) tells us that the Lady of Blakeney paid a fine that the King's charcoal burners may be removed from her bailiwick. (This may be an early indication of complaints that excessive demands were being made on the timber of the Forest.)

In the Close Roll of Henry III (1216-1272) are defined the duties of Warden of the Forest, comprising amongst others the

inspection of weirs and forges, also the charge of Forest made arrows, which latter were to be produced when required. Arrows stored at St. Briavels were furnished for use on 21 occasions. In 20 instances where figures are known the average supply was about 23,000. For the siege of Bedford in 1224 there were 2,000; for Scotland in 1244 the order was for 30,000. Arrows were ordered on two occasions for Gascony in 1253 and 1255. The royal castles in Wales and the Marches were supplied nine or ten times.

Royal control of the iron forges seems to have been decided upon about 1216, for in this year John de Monmouth was authorised among other things to control them, in other words to decide where and to whom forges might be granted or refused.⁹

Fears were now being openly entertained that excessive demands on timber for converting into charcoal were being made. Consequently in 1217 Henry III ordered that all private forges should be removed with six exceptions. The rights of the abbots of Flaxley to cut two oaks weekly for their forge was commuted in 1258 to a grant of 872 acres of what is now known as Abbots Wood, for which they paid in 1258 the sum of seven gold and ten silver marks. This latter privilege was ended at the time of the Dissolution.²⁰

The fear of timber shortage appears to have become more acute for in 1220 Henry III commanded John de Monmouth not to permit any forge to work in the Forest except demesne forges, and to let all who had or claimed other forges to appear before his justiciary Hubert de Burg.⁸ (A justiciary would appear to be an equivalent of our modern Regent.)

In the same year the Abbot and monks of Flaxley were permitted to work their forge according to the charter of Richard I and in the same manner as in the time of King John in spite of the above prohibitions.

The next year (1221) a number of others were also permitted to work their forges as they had done in the time of Richard I and John.

According to the Pipe Rolls the Crown vacillated in policy, being concerned at the wastage of timber in the Forest. Thus in 1228 the King's travelling forges were restricted to three. In 1237 orders were given to set up eight. These ceased work in 1240, but in 1255 four others were set up in their place.

To give an idea as to the cost of ironwork at this time the Close Rolls mention that in 1222 William Mailmort the smith received 6d. a day, William the fletcher (who made the shafts) 3d. Their arrows were all intended for crossbows. Between 1240 and 1246 John Malemort, who had his own forge apart from that belonging to the King at St. Briavels, was paid one mark per 1,000. The same family was still at the forge until 1277.

The Pipe Rolls further tell us that the total royal forge profits were £389 12s. 0½d. between 1237 and 1247 and in the year 1255.

The Close Rolls say that the Castle forge was farmed out in 1246-7 at £24 and in 1255 at £22 10s. 0d. This same forge was expressly excluded from the "issues of the Forest" granted to Robert Walerand in 1255. What happened to it after 1281 is uncertain.

Between 1240 and 1246 at least 50,000 arrows a year were made for the King's use, the price being about 14s. 3d. per 1,000 including carriage to southern England and Wales.

Before 1250 there were from 25 to 30 working forges, increasing by 1270 to 43 and in 1282 to about 60. According to the Close Roll the number by the next year had diminished to 45. Private forges in the 13th century paid 7s. 0d. per year rent to the King when actually working.⁸

Alternating orders and countermands naturally raised difficulties so we find a number of claims put forward in respect to the rights of ironworkers.¹⁰

In 1274 Sir Hervey de Caduris claimed the right to a forge, the adjudicators being the Sheriff and Sir William le Blund, the Deputy Constable. The forge was valued at 48 marks and in 1276 he was granted 500 marks in quit claim.

Cecilia of Musegros claimed the ore in Bicknor, whilst Walter of Aston claimed that of Blakeney, Sir Richard Talbot that of Lea, and the earl of Warwick the ore in his wood of Lydney.

In 1282 Ralph of Abenhall claimed as perquisite, among other items, all the ore and sea coal found in his bailiwick.

The King himself in 1282 put forward some claims of his own. Firstly, in the bailiwicks of Bearse and Mitcheldean the sum of one penny per week and in Stanton one halfpenny per week for every workman taking three bushels of ore and over, also the right to have one man working in each mine at 2d. per day and to receive his share of ore.¹⁰

Secondly, in Abenhall and Mitcheldean he claimed six bushels of ore per week on payment of 6d. (But we have just learned that in the same year Ralph of Abenhall laid claim to all ore in Abenhall); in Bearse 24 bushels for 2s. 0d. and in Stanton ore for his itinerant forge at one penny per bushel. Thirdly, he had one halfpenny from every bushel taken from the Forest.

In the same year the whole revenue from these mines was farmed for £45 per annum.

About the same time Richard Page of Littledean seems to have had a forge for three years since he was fined at the rate of 3s. 4d. a year for damage to the Forest.¹⁰

As previously mentioned in 1282 there were about 60 forges working, five in Littledean, three in Blakeney, two at Lydney, thirteen at St. Briavels, ten at Staunton, two at Bicknor, two at Hope Mansel, eight at Ruardean and fourteen at Mitcheldean, their values ranging between 18 marks and 50 pounds.

Departing a little from chronological order we note that in 1276 Ralph de Sandwico, custos of the castle and manor of St.

Briavels, reports as having been paid £23 16s. 9½d. from great and little mines of iron and coal, £11 16s. 0d. from rent of forges, and £5 15s. 0d. from sale of cinders.⁸ (Owing to wasteful methods of smelting cinders had an appreciable content of iron.)

King Edward I (1272-1307) demanded an annual supply of 360 bars of iron and 100 iron rods, the latter for making into nails for the fleet.

The *Book of Dennis*, probably referring to the time of the same king, gives us an account of the basic regulations for mining operations, using the following words:—"Bee itt in minde and Remembrance what the Customs and Franchises hath been that were granted Tyme out of Minde and after in tyme of the Excellent and Redoubted Prince King Edward . . ." A copy of the transcript appears in H. G. Nicholls' *Iron Making in the Forest of Dean* and a very full transcript with annotations in C. E. Hart's *Free Miners of the Forest of Dean*. It seems therefore superfluous to go into details here, but the Free Miners' rights may be summarised as follows:—(i) Freedom to mine in any soil, subject to dues to the King and Lord of the soil; (ii) Free access to the mine; (iii) Provision of timber for the works; (iv) The right to try all mining cases in their own court; (v) The exclusion of all foreigners, i.e. those coming from outside the area.

In 1333 Robert de Sapy was ordered to buy 500 pieces of iron and 5,000 horseshoes, and to send them to Ireland *via* Bristol to King Edward III.⁹

The Exchequer Rolls state that on the completion of Newland church the Bishop of Llandaff obtained from Edward III in 1341 a grant of one tenth of the ore raised in the neighbourhood, which together with the product of the Forest forges yielded £34 in the same year.

It is said that history repeats itself so we are not surprised to learn that in 1375 a familiar type of industrial dispute arose concerning a demarkation line between the activities of the iron miners, quarrymen and coal miners. According to the Calendar of Patent Rolls of Edward III a Commission had to consider the matter.⁴

For the next two hundred years there seems to be a scarcity of documentary evidence of Forest iron working activities and only a few isolated references have come to hand. It is recorded that in 1435-6 the King commenced farming out the proceeds of iron mines, (Pet. in Parl. 8, Henry VI), Hugh Cromwale, on behalf of the duke of Bedford, having accounted for £22. In 1446 the earl of Warwick paid £100 per annum as rent for the Forest, followed in 1464 by the duke of Clarence and later by the duke of Gloucester. The duke of Norfolk's accounts, 1462-1469, record that arrow-head makers were paid at the rate of five for one penny. John Laake, arrow-head maker to Henry VIII was paid 4d. per day with food and board.

In the Letters and Papers of Henry VIII we find that his forge in Glamorgan was worked by men who were paid on the same terms as those in the Forest of Dean and the following particulars are of interest:—⁶ (i) Five men keep the fire to melt the ore at 12d. per man per day; (ii) Four men at bellows, three blowing at a time, one refreshing the others for six or seven hours per charge, two charges per day, each weighing one hundredweight, each blower getting 7½d. per day; (iii) Three men in mine, one hewing, one cutting timber to stay it, one carrying ore. Digger has 12d., shorer 6d., carrier 6d. per day; (iv) Nine men worked 12 to 14 hours a day to make two hundredweight of iron.

In 1540 the Forest "was fruitful of iron mines and divers forges be there to make iron".¹⁰ In 1566 Sir William Cecil was told that the Forest contained plenty of good iron.¹⁷ In this year of 1566 a brass and iron works was established at Tintern by the Mineral and Battery Society, mainly to make wire drawn by water power.

Though the blast furnace was introduced into England in 1496 at Newbridge in Ashdown Forest, it did not reach the Forest of Dean until later. Tests were made of blast furnace iron making at Lydbrook in the early 1590's by Robert Devereux, but shortly after his execution in 1601 the property was seized by the Crown.¹¹ The person responsible for commercial introduction of the blast furnace in the Forest was William Herbert, Earl of Pembroke (Constable of St. Briavels) in 1608. In 1611 the manor, town and castle of St. Briavels were granted to him at a rent of £831 13s. 4d. for 40 years. He was governor of the Corporation of Mineral Works drawing iron wire at Tintern by power, under a patent granted to William Humfry and Christopher Shutz in 1565. (The Corporation was the same body previously referred to as the Mineral and Battery Society.) Herbert was empowered to enclose up to 12 acres of woodland for each ironworks and to take up to 12,000 cords of wood for their use at 4s. 0d. per cord.

Soudley iron works were established in 1612. Perhaps it will be as well to relate its later history here. The Works were originally in the hands of Jones of Hay Mill (note the Herefordshire connection) followed by Parnell and Company, then from 1784 to 1804 by Dobbs and Taylor and in 1824 by Browning, Heaven and Taylor. In 1828 Todd, Jeffries and Spirrin converted part of the premises into a paint and brass works. In 1837 Edward Protheroe built blast furnaces and worked them for four years. In 1857 the works were bought by Benjamin Gibbons who in turn sold them in 1863 to Messrs. Godd. Only one furnace was in use in 1866 making 20 tons each casting and employing 80 hands.⁸

Lewis Wilshire in *Vale of Berkeley* (1954) says that Forest ore was sent to Berkeley Pill and thence to the furnaces at Michaelwood on the east of the Severn, the persons concerned being Thomas Hackett, and later Sir William Throckmorton.

A grant was made in 1612 to the earl of Pembroke giving him the sole right to dig for mine ore, stone, and coal, as well as cinders. (As previously mentioned these last were those left by the Romans and later workers and were of considerable value.) More furnaces were erected at Cannop, Parkend, Soudley and Lydbrook after 1612, followed by forges at Parkend, Soudley and Lydbrook. In 1615, however, the earl of Pembroke transferred his lease to Sir Basil Brooke, who only worked two of the works at Parkend and Soudley; Richard Tomlins and George Moore (the latter probably being the steward of Goodrich Castle in 1609) worked Lydbrook and Cannop. This arrangement did not last long, for in 1621 all the Crown works were leased to Philipp Harris and Richard Challoner of Bristol.¹⁶

Two more forges were built during 1628–9 at Whitecroft and Bradley; thereafter the Crown owned four furnaces and five forges in the Forest. Some of these were leased in 1627 to Sir Basil Brooke, George Mynne and Thomas Hackett, but when Brooke applied for a lease renewal in 1635 the Crown granted it instead to Sir Bainham Throckmorton and others for a period of 21 years beginning in 1636. These were to have the sole right of producing iron in the Forest, all private works having to be demolished. Once again the competing demands for navy timber and iron ordnance led to decrees and reversals of decrees. Throckmorton's lease was terminated in 1640 because the whole Forest with all its ironworks and mines had been leased to Sir John Wynter, principal secretary to Henrietta the wife of Charles I.¹⁵

In all Wynter obtained control of 11 furnaces and 10 forges at Lydney, Gunn's Mills, Rodmore (these three being already in his own possession), Newland, Brockweir, Lydbrook, and Flaxley, though probably not all were simultaneously in operation. These were additional to Crown owned forges at Whitecroft and Bradley as well as a private one at Bishopswood that had somehow evaded the demolition decree. He was also entitled to all Forest timber, iron mines, coal, quarries and cinders.

In 1642 Wynter was ordered to hand over Cannop and Lydney forges to John Browne, the King's gunfounder, but he refused. Browne was to have had 5,000 tons of timber lying in the Forest at 10s. 0d. per ton for making iron, the proceeds to go to Wynter, as well as felled timber unsuitable for ship or house building. There is however no record of Browne having actually made iron in the Forest. Possibly the fact that Massey destroyed all Wynter's iron works in 1644 during the Civil War was responsible.¹¹

In 1646 grenado shells were supplied by the Forest and as in 1649 there were 12 furnaces and forges it is evident that all iron-working had not been stopped.¹

An oral tradition, mentioned by Rev. John Webb in 1834 (in his *Memorials of the Civil War*, p. 395), records that the furnace at St. Weonards was working in 1645 in the same occupation as

the forge at Llancillo, the clerk of both being Richard Kemble. It was working in 1680 and was rebuilt in 1720 by William Rea.

Still again the consumption of timber gave cause for alarm and in 1650 a House of Commons Committee ordered all the iron-works to be suppressed and abolished, but later the government could not get enough shot from Sussex (apparently not affected by the restriction) and in 1653 Major John Wade was directed to produce shot in the Forest for the navy. He reported that the remaining furnaces were capable of producing 50 to 60 tons of pig iron a week and 20 tons of shot, the prices being £3 per ton for pig iron and £4 for shot. He advised the building of a forge costing about £100. From September, 1654, to August, 1659, the works supplied the navy with 700 tons of shot and 88 tons of wrought iron fittings. Between September, 1657, and August, 1660, he disposed of 1,200 tons of pig iron at from £6 12s. 0d. to £7 5s. 0d. per ton, five tons of chimney backs and baking plates at £12 and 300 to 400 tons of bar iron at £17 10s. 0d. per ton, most of the latter going to Bristol.¹¹

In Evelyn's diary for July 11th, 1656, it is stated that Sir John Wynter charred sea coal to burn out the sulphur, converting the former into coke. The experiment was only partially successful, but it antedates more successful attempts a century later. The importance of this experiment lies in the fact that if perfectly successful the later tremendous loss of timber in the Forest would have been averted.

At the Restoration in 1660 the Forest was returned to Sir John Wynter, but the ironworks were reserved and were leased for 11 years to Francis Finch* and Robert Clayton. In the interim they were carried on by William Rod and others. For the first two years after 1660 the records state that the wages of the miners and woodcutters were not paid.¹²

That guns were cast in the Forest is borne out by the launching of the first frigate *Forester* from Lydney Pill in September, 1657. The guns, 22 in number, were cast at Lydney on the site of what is now known as "Old Furnace Cottages". A second frigate *Princess*, launched in August, 1660, had 52 guns. The former fought against the Dutch and the latter against the Danish fleet. (It may be of interest to note that about a century earlier the principal purchasers of English guns were the Dutch during their rebellion against the Spanish.) Owing to the silting up of the Lydney Pill the next frigate *St. David* was launched in 1667 from Cone Pill, a few miles away, with 54 guns. This frigate was largely responsible for the capitulation of Tobago.¹³

Pepys, in his diary for July, 1662, records making an agreement with Sir John Wynter. In August they met and talked about "Forest iron works of great antiquity and vast heaps of cinders

* Is he related in any way to John Finch, the bellfounder, of Hereford?

which they find and are now of great value, being necessary for the making of iron at this day, and without which they cannot work".¹⁷

It was mentioned earlier that some iron works managed to evade the demolition orders. There were seven in 1634, and in spite of the Treasury's recommendation in 1674 for the suppression of the Forest works because of timber denudation the number had increased, the works being located at St. Weonards, Whitchurch, Linton, Bishops Wood, Flaxley, Gunn's Mills (doubtful, see below), Blakeney, Lydney, Redbrook, Tintern and Brockweir, the date of this list being 1680. (Lydney forge is mentioned in 1663. *Lydney Muniments*.)

Writing in 1678 Henry Powle stated that in the Forest of Dean the ore was smelted in furnaces of stone or brick, about 24 feet square and nearly 30 feet high, with an internal diameter of 8 to 10 feet at the widest part. (A typical illustration of an earlier furnace appears in Dr. Schubert's *The King's ironworks in the Forest of Dean*.) From 1626 to 1683 it took 1½ tons of charcoal to produce one ton of pig iron, this accounting for 70 per cent. of the total production cost. Much later methods used only ½ ton of charcoal per ton of pig iron.¹⁸

Sixty-two years of Royal ownership ceased when in 1674 the Crown works were sold to Paul Foley for the purpose of demolition.¹⁹

Gunn's mills, first mentioned in 1635 and as having been destroyed in 1644 must have been rebuilt, for it was in production in 1680. There is a tradition that cannon were cast here for the navy at the time of the Dutch war towards the end of the 17th century. The furnace was again reported in production between 1705 and 1732 except for idle periods in 1707, 8, 10, 12, 13. (Newcomen *Trans.*, Vols. V and VI and Foley MSS.). Bigland in 1791 stated that Gunn's Mills was converted some time before 1743 from an iron furnace to a paper mill. The latest reference is that it produced brown paper to a width of 53 inches in 1876.²⁰

Andrew Yarranton in *England's Improvement by Land and Sea* (1696) had much to say about ironworking,

"And first, I will begin in Monmouthshire, and go through the Forest of Dean, and there take notice what infinite quantities of Raw Iron is there made, with Bar Iron and Wire; and consider the infinite number of Men, Horses, and Carriages which are to supply these Works, and also digging of Iron Stone, providing of Cinders, carrying to the Works, making it into Sows and Bars, cutting of Wood, and converting it into Charcoal."²¹

Further he states "... for that Metal is of a most gentle, pliable, soft nature and is best in the known World. For in the Forest of Dean ... the Iron is made at this day of Cinders, being the rough and offal thrown by in the Romans' time; they then having only foot-blasts to melt the Iron Stone, but now by the force of a great Wheel that drives a pair of Bellows twenty foot long, all that Iron is extracted out of the Cinders, which could not be forced from it

by the *Roman* foot-blast. . . . "It is sent up the Severn to the Forges and there made into Bar Iron . . . It is now at Stourbridge and Birmingham and there bent, wrought and manufactured into all small Commodities and diffused all England over."

Flaxley Abbey is mentioned in 1695 and again in 1710 as in the possession of Richard Knight.²¹ In 1706 it had one or two forges at most. It is mentioned again in 1712 and 1796 but was idle so far as ironworking was concerned, though a cast iron block exists marked "Flaxley Works 1813". (Maybe a revival during the Napoleonic war.)¹¹

Bishopswood furnace was built between 1634 and 1639 and produced cast iron ware. During the ownership of John Partridge both furnace and forge were in operation in 1796.

Whitchurch furnace (outside the Forest area) was in existence before 1670*, being owned by Rudhale Gyllym. The wheel driving the bellows was operated by a water channel running through land owned by Nourse who lived in the Bridge House, the channel being continued in a wooden trough where it passed over a cinder path, the furnace itself being built on the foundations of an earlier one.¹¹ George Scudamore was the tenant in 1670. It was rebuilt by William Price in 1720.¹²

As for blast furnaces during this period we are told that in 1720-30 there were ten in the Forest, six being in Gloucestershire, three in Herefordshire and one in Tintern, Monmouthshire.⁸

From the end of the 17th century and during the 18th century the Foleys were prominent ironmasters. Recently Mr. B. C. L. Johnson has had access to the Foley muniments from 1672 to 1751²¹ and has permitted me to make a few extracts from his notes. The works under the control of the Foley partnership (Paul and Philip Foley, Richard Arenant, John and Richard Wheeler) comprised furnaces at St. Weonards, Elmbridge, Bishopswood, Gunns Mills, Flaxley, Redbrook, Blakeney, Tintern and Lydney. In addition there were forges at Peterchurch, Llancillo, Upleadon, Lydbrook, Monmouth, Radmore, Barnedge, Rowley, and Tintern. Between them they controlled 70 per cent. of the pig iron output of the Forest of Dean.

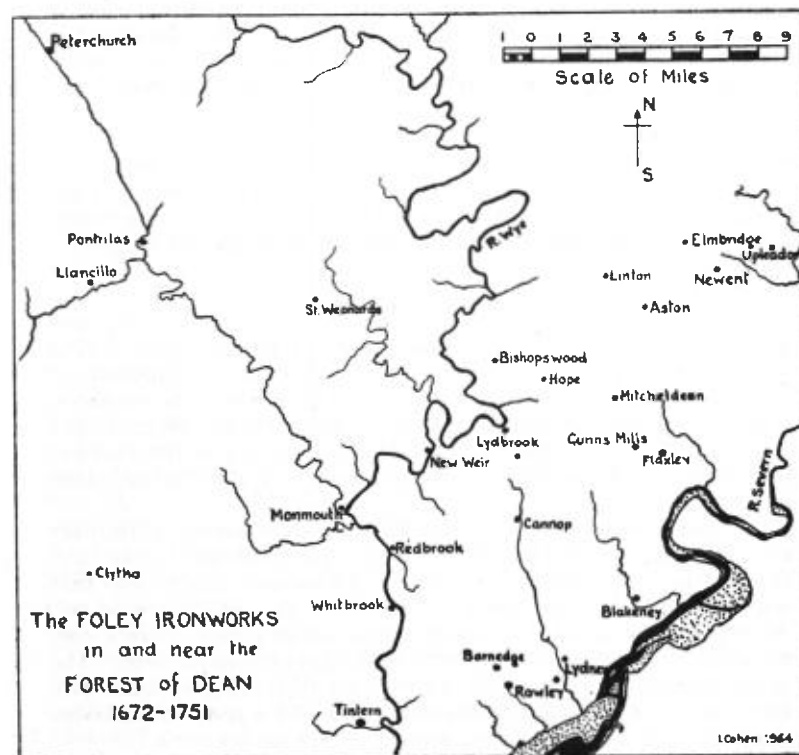
The furnace near Newent known as Elmbridge was in existence in 1692, but it is not yet known whether it was erected by Thomas Foley or was purchased by him.²¹

Very complete accounts taken from the Foley (Stoke Edith) muniments deal with the Tintern furnace and forges for 1672, 1673, 1675 and 1676, with the Tintern and Whitbrook wire works for 1674-1677, St. Weonards furnace, Llancillo, Pontrilas and Peterchurch forges, and Monmouth Storehouse for 1677 and 1678. Many details are quoted in Johnson's paper in the *Transactions*

* For a description of this forge and an inventory of its contents in 1633 see Woolhope *Transactions*, 1943, pp. 103-118.

of the *Bristol and Gloucestershire Archæological Society* for 1953, but the complete record awaits thorough classification and publication.

The first Foley forges were small ones at Barnedge and Rowley, between Blakeney and Chepstow. St. Weonards came under the Foleys in 1707-8, and with the exception of 1712-14 it continued to produce until 1717. Llancillo was under Nathaniel Morgan



in 1698-9 and drew its pig iron at that time from St. Weonards. Llancillo sent bar iron to Hereford.

Elmbridge pig iron was sent to a forge at Upleadon (not a Foley concern) which was held by Humfrey Soley in 1697-8 and from 1703-4 by John Soley. After 1715 George Draper was in occupation. Blakeney, after 23 years production went out of blast in 1715.²¹

Redbrook in 1699 probably had two furnaces owned by Benedict Hall (and Will Johnson as per accounts in the Lydney Park muniments from 11th September, 1699, to 6th May, 1700). In 1702-3

it came under the Foleys. During 1716-7 trials were made with coke-smelted iron but it proved of poor quality.²¹

Monmouth forge was held by the Foleys from 1704 to 1709 and the Lydbrook forges from 1708 to 1709. New Weir Forge below Lydbrook was held by George in 1710-12 and by John White (1715-17) who concurrently held Monmouth. John Hanbury had Tintern in 1707-8. From here much iron was sent to Llancillo, Pontrilas, South Wales and the Midlands and in addition various castings were made. But by 1715 it is recorded that Thomas Dix (Dicks) held Tintern. The Foleys' interest in the wire trade persisted in the Forest until at least 1712 when Thomas Foley held the Whitbrook works.²¹

In 1725 there were six furnaces and three forges under the Foleys. Elmbridge, Bishops Wood, Redbrook and St. Weonards were working, but at Gunns Mills work was intermittent and the Blakeney furnaces were idle. Elmbridge continues in the accounts up to 1751 and Bishops Wood drops out in 1728 but reappears in 1748.

Monmouth forge drew most of its pig iron from St. Weonards, Redbrook and Bishops Wood, but had some Lancashire pig iron in 1725-6.²¹ Rhys Jenkins mentions that in 1756 and again in 1783 there were only eight iron mines employing 20 men and three boys.¹¹

Taylor's map of Gloucestershire in 1777 shows iron furnaces, forges or engines at Bishopswood, Lydbrook, New Weir, Upper Redbrook, Parkend, Bradley and Flaxley. The site of the Parkend coke furnace is the present tall engine house, now used by the School of Forestry.

Samuel Rudder in *New History of Gloucestershire*, 1779, says that the furnaces are 20 to 30 feet high, of a gritty local stone, and situated generally against a bank. The furnace charge was first ten baskets of charcoal, then ten of cinders and finally ten of ore. An explanation of this statement is that earlier processes were very wasteful, the cinders containing a large proportion of iron. The use of cinders was economical in two ways, dispensing as it did with the addition of a flux and recovering much of the iron. At Flaxley the production by this method was about 20 tons per week.

Thomas Bathurst of Lydney Park leased to David Turner on 8th April, 1779, the furnace for smelting and casting called Lydney furnace. There were two forges, Pill Forge and New Forge, included were the rights to dig for ore and coal. David Turner was lessee of Tintern Abbey works at Llancillo and of other forges. In 1789 he and William Turner bought the copper works at Lower Lydbrook, which they converted into a forge and tinplate works. They went bankrupt in 1798.¹¹

In 1788 Hopkinson stated before a Parliamentary Commission "There is no regular iron mining work, but 22 poor men in times of non-employment dig for ore in old holes and pits". This, in conjunction with a further statement that Lancashire ore is the

principal source of supply owing to Forest iron being too scanty or expensive or difficult of fusion, gives an indication that the prosperous days of Forest ironworking were coming to an end.⁶

In 1796 the only working furnaces were at Bishopswood, Flaxley and Tintern. Coke was in general use and charcoal furnaces were being abandoned everywhere, so that in 1806 there were only 11 charcoal as against 162 coke furnaces in the whole of Great Britain. In connection with this Rudder states that coke was tried unsuccessfully at Lydney in 1773 whilst Thos. Rudge states in 1803 that coke is used at Lydney, but the product is inferior.¹¹

Sometime about 1800 there were two unsuccessful coke furnaces erected at Cinderford and Whitecliffe near Coleford. In 1799 a furnace was erected at Parkend, a previous one having been suppressed in 1674, and in 1827 there were two furnaces, each 45 feet high, 14 feet diameter at the boshes, five feet diameter at the hearth and 9½ feet at the top.

The works at Lower Lydbrook were once in Foley's hands and in 1817 were leased by Allaway, there being three forges with rolling and bar mills together with a tinplate works using iron from Cinderford. The upper works were once in Lord Gage's possession and were bought by Russell in 1818, to make fencing wire and iron for horsenails.⁸

In 1825 Moses Teague formed a company with James and Montague Whitehouse which leased the Parkend furnaces; these in 1866 were still working and producing over 300 tons per day, using 350 tons of coke and 600 tons of Forest ore, employing 300 men. In the same year the tinplate works at Parkend were using two thirds Forest iron, 200 men making 500 boxes of tinplate per week.⁹

Henry Crayshaw and his father came from South Wales in 1835 and very soon joined the Cinderford Iron Works. From one mine alone they extracted 400,000 tons of iron ore between 1860 and 1870. The Crayshaws also became owners of the Parkend Iron Co.

Two items in 1841 may be quoted. In July 20 iron mines were defined and assigned by the Dean Forest Mining Commissioners. In November there were 829 registered free miners, including coal workers.¹⁷

Two more furnaces were erected at Soudley in 1837 and by 1873 there were ten furnaces in Gloucestershire (presumably all in the Forest), but the industry declined, mainly through the importation of ore from abroad and by 1879 only two were working in Cinderford. Finally in 1890 the Cinderford works closed down.

A very prominent name in the high-class steel world is that of R. F. Mushet who gave his name in 1868 to one of the earliest high speed cutting tool steels, which have since been improved by the addition of other alloying elements. R. F. Mushet was a native of the Forest and was connected with the Forest Steel Works, Coleford, from 1848.¹⁹ (His father was David Mushet who moved from Alfreton to Coleford in 1810 and for a year had an interest in

the Whitecliffe Iron Works. He died in Monmouth in 1847 and is buried at Staunton.)

A still more prominent name is that of Bessemer, usually associated with Sheffield and the commercial production of mild steel which has almost completely replaced wrought iron for constructional purposes. It may be news to some to learn that the first good quality Bessemer steel was made in 1856 by Mushet (who added manganese) at Milkwall, near Coleford, and it was there that Richard Baldwin, another famous name in steel, started business. Mushet's experimental shed is now the garage of High Nash Guest House, and has recently (1954) been scheduled as of historic interest.

Somewhat over a hundred years ago there was a partial revival of iron mining and here are a few instances. In 1829 mining operations were carried on at Shakemantle pit in the east of the Forest, in 1835 at Buckshraft, and in 1849 at St. Annels, near Cinderford. All three of these mines were connected by an ore vein some two miles long, which had been abandoned in 1674.⁸ Mining was also resumed at Westbury brook in 1837 and at Old Sling on the Clearwell Mean. Here were discovered some ancient picks and iron tipped wooden shovels, the latter somewhat unusual and probably of a comparatively recent date.

In *The Wye, a Picturesque Ramble*, by Leitch Ritchie (1841), describing a voyage down the Wye, there are several references to existing iron works, the date of the trip being probably 1839. Here are a few extracts.

"At Stanton are Roman cinders scattered about the fields." "Just before Ruardean in Bishops Wood and there will be observed . . . the iron furnaces." At Lydbrook "the iron furnaces . . . have added a charm congenial to the character of the picture." Between Great and Little Doward is "King Arthur's Hall, the level of an exhausted iron mine". At Redbrook: "The brook also serves the purpose of turning the wheels of some iron and tin works."²²

Writing in 1913, A. O. Cooke mentions that on the Doward side of the Wye, near Biblings Lodge, iron was mined up to 1870 by the owners of Wyaston Leys. Lady Park Cave on the opposite side of the river shows clear signs of iron ore mining as also do some other places near the Yat rock.

Coming to more recent times Rhys Jenkins states that seven mines were working about 1917 and 1918, including one at Wigpool (1914-1918 under Mr. Findley) and another called Easter Mine.

On the Lea Bailey level about two-thirds of a mile north and somewhat east of Euroclydon, near Drybrook there was prospecting for gold at the beginning of this century, but on the advice of Mr. L. Richardson (President of the Woolhope Club in 1946) and Mr. E. A. Wraight the quest for gold was ceased and attention given to the mining of iron ore, some 3,000 tons being obtained until operations were abandoned in 1924.¹²

In 1925 a bed of cinders came to light when a trench in Coleford was being dug. A year later cinder from a deposit on private ground was sold to an iron works in South Wales.

Readers of Nicholls' *Iron Making in the Forest of Dean* will have seen pages devoted to an inventory of forges and furnaces in the Forest. This was taken from a copy of about 1780, but H. R. Schubert having examined the original documents has discovered several material errors. Accordingly he has published a corrected inventory in a paper read before the Iron and Steel Institute, which is printed in their *Proceedings*, Vol. 173, of 1953. It deals with Lydbrook, Cannop, Parkend and Soudley furnaces as well as forges at Lydbrook, Parkend, Wheatcroft, Bradley and Soudley. As the inventory would occupy too much space for insertion here searchers after full information are referred to the Schubert paper.¹⁵

To Herefordians there are several names mentioned in this history that may strike a familiar chord, such as Foley, Scudamore, Jones of Hay Mill, and Devereux. As in the case of the Foleys it may be that search through local family archives may reveal facts that will help to fill in some of the gaps, particularly in the 15th and 16th centuries.

My thanks are due to several helpers amongst which I must mention particularly Dr. H. R. Schubert who verified many of my references, Mr. F. C. Morgan, Mr. B. L. C. Johnson and the staff of the Hereford City Library.

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THOUGHTS UPON THE DISTRIBUTION OF THE RURAL POPULATION IN HEREFORDSHIRE AT THE BEGINNING OF THE NINETEENTH CENTURY

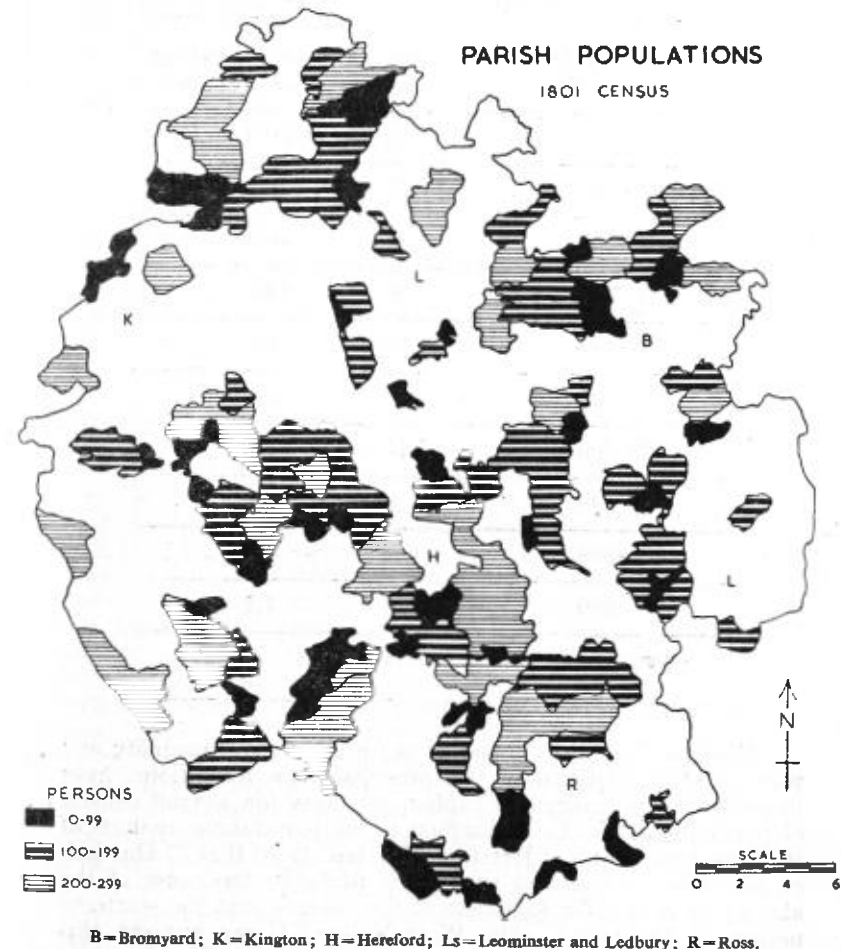
By J. N. JACKSON, B.A., F.R.G.S.

"In its settlement pattern Herefordshire shows a complex mingling of highland and lowland features. In spite of this, the county appears to have attracted little attention from students of settlement types, and no analysis of its settlement pattern in relation to either the physical background or historical factors has been found."¹ These remarks introduce the all-too-brief comments upon the types of rural settlement to be found in the comprehensive Planning Survey of Herefordshire undertaken by the West Midland Group on Post-War Reconstruction. The subsequent remarks are offered as a small contribution to this intriguing problem in the sincere hope that careful criticism and pertinent discussion will lead to a fuller understanding of the format and distribution of our many villages and their attendant hamlets. The statistical study is made of their location at the beginning of the nineteenth century, because the county then formed an independent regional unit into which the scientific and social repercussions of the industrial revolution had hardly penetrated. In particular there had been no breakdown of the regional isolation by the advent of either the railways or the ubiquitous motor vehicle, no suburban movement from the market towns and no large-scale migration had denuded the rural areas of their younger working population to enlarge the industrial centres. Agriculture and its attendant service industries remained the principal occupations of the inhabitants and the major land use within the county.

Let us first examine on a county basis the precise statistical evidence provided by the first of the national decennial census reports. The enumerated population within the administrative boundary at 1801 was 89,191 persons; this figure represented an average gross density of only one person to every six acres over the whole county area, whereas in Shropshire 4.8 acres supported one person and, in both Worcestershire and Gloucestershire, the overall figure was 3.2 persons per acre. Of this total county population, 18,354 persons or 20.9 per cent. of the total resided within the administrative areas of the six market towns and beyond the limited scope of this article. Within the rural areas 20 per cent. of all parishes contained less than a hundred persons; 28.4 per cent. of all parishes supported between 100 and 199 inhabitants; 16.8 per

¹ West Midland Group, *English County*, 1946, pp. 66-67.

cent. nurtured between 200 and 299 persons. The astoundingly high percentage of 65.2 per cent. of all parishes returned a population of less than 300 persons. As the average number of persons per



inhabited house was 5.2, the above statistics may be presented in a somewhat different form by remarking that only 34.8 per cent. of all Herefordshire parishes contained more than sixty occupied dwellings and only 11.6 per cent. of all parishes contained more than 115 occupied dwellings, partly in scattered farmsteads and partly in small hamlets and villages. The actual relationship

between parish populations and their frequency are tabulated below:—

TABLE I
PARISH POPULATIONS—1801

<i>Parish Population Number of Persons</i>	<i>Number of Parishes</i>	<i>Percentage of all Parishes</i>
0-99	50	20.0 per cent.
100-199	71	28.4 „ „
200-299	42	16.8 „ „
300-399	26	10.4 „ „
400-499	16	6.4 „ „
500-599	16	6.4 „ „
600-699	12	4.8 „ „
700-799	9	3.6 „ „
800-899	4	1.6 „ „
900-999	3	1.2 „ „
over 1000	1	.4 „ „

Geological conditions, and in particular the permeability and water bearing capacity of the principal rock formations, have frequently been invoked to explain this very low overall density of population. Mr. L. Richardson in his painstaking analysis of the wells and springs of Herefordshire¹ has stated that, "This lack of adequate underground supplies is probably the cause of the absence of towns, the smallness of the villages, and the scattered nature of dwellings". The West Midland Group support this expert view and have themselves asserted that, "In Herefordshire the prevalence (of dispersed settlements) may be linked with geological conditions, for while small-scale supplies of surface or spring water sufficient for the requirements of the isolated farmstead or hamlet are available in almost all parts of the county, it is only

¹ Memoirs of the Geological Survey, *Wells and Springs of Herefordshire*, 1935, p. 8.

locally that supplies are adequate for the needs of any large settlement cluster".¹ The present writer considers that these two authorities have both accepted a far too deterministic attitude towards the influence of the physical background upon the location and size of rural settlements. Human factors, such as the rate and form of the various enclosure movements, the late survival of a forest vegetation cover, the sequence of historic events, the interplay of highland and lowland cultures, the actual methods of husbandry and the agricultural utilisation of the land—all have played their part in the progressive evolution of the now characteristic village landscape. Rather than water supply it is the complex amalgam of these less tangible environmental items against the physical background of the county which helps to explain the local settlement in any one epoch or the distribution of villages and hamlets within any one physiographic province.

As an adequate supply of drinking water is an absolute essential in the vicinity of every type of dwelling, the proximity of a regular spring or the availability of potable well water must always have been an important factor in the siting of human settlement. In this connection it must be stressed that the present domestic outcry for improved rural water supplies is for public piped services and a tap in every house;² this represents a very different proposition from the spring, well or village pump which, with the soft water of a nearby stream for washing purposes, would suffice for the more limited requirements of our ancestors. Geological horizons which contain sufficient supplies to meet local requirements include the western boundary fault of the Malvern Hills; the Cambrian rocks to the south of the Malvern Hills; the Upper Ludlow limestones and the May Hill sandstones of the Silurian areas; the Dittonian and Brownstone formations of the Old Red Sandstone; the Psammosteus limestone, the Holdgate Sandstone and the Downton Castle sandstone of the Downtonian areas; and, of very small area extent, the limestone bands in the Carboniferous rocks in the Forest of Dean. In addition, introduced glacial deposits overlie the solid formations in two principal regions—in the northwest of the county and in particular along the Lugg, Arrow and Stretford brook valleys between the Wormsley-Dinmore hills and the North-West Uplands, and to the south-west of Hereford between the Merbach-Stockley-Whitfield ridge and the Wye Valley. Bearing in mind the distribution of these solid and drift formations and combining the resultant pattern with the assertion that a lack

¹ West Midland Group, *English County*, 1946, p. 67.

² There is also an insistent agricultural demand to improve ley cropping and to increase dairy production. Modern standards of hygiene and cleanliness, the water closet and the bath have all contributed to this enhanced demand and to the fallacy that inadequate local supplies have deterred the expansion of settlement. It should also be remembered that polluted supplies form a man-made evil and would be a non-existent factor in the initial establishment of primary settlement within virgin territory.

of underground water supplies is the prime cause of a scattered settlement, then it might be anticipated that the remaining areas of poor aquiferous strata would emerge from the map as zones containing the lowest density of population. Such is obviously not the case. The North-West and North-East Uplands, the Black Mountain foothills, the Wormsley-Dinmore hills, the Ross lowlands, the Garway and Orcop hills, are all areas which supported a sparse and dispersed pattern of rural settlement despite the availability of adequate local supplies of water. Many springs, streams and rivers within the county provide an ample and regular flow of water, yet remain untapped for domestic purposes because of the non-existent demand. It is suggested that water supplies have influenced the actual siting of human settlement (e.g. several villages and all the market towns are located on gravel deposits or below spring lines) but the paucity of supplies cannot be invoked to explain either the scattered distribution or the small size of existing settlements.

If the importance of water supply is discredited, are there any other basic physical factors which could have nullified the initial establishment or subsequent expansion of settlement? Three may be suggested. In the first place, land over the 1,000 foot contour would tend to be bleak and windswept, and therefore prove less attractive to human settlement than the more fertile lowland areas. Such relatively harsh climatic conditions would apply to the narrow ridge crest of the Malvern Hills, to the higher portions of the North-West uplands,¹ to the main scarp of the Black Mountains, and to the northern segments of the Black Mountain foothills.² Another physical deterrent would be those regions of incised terrain where hills and rejuvenated valleys are separated by steep slopes, and where remoteness and inaccessibility would operate as restrictive factors. This disability would apply to the two main Silurian areas of the Woolhope Dome and the North-West Uplands; to a lesser extent to the Black Mountain foothills, the South-West Uplands and the Forest of Dean fringe; and locally within the other hill areas. This adverse consideration would not apply to the lowland areas below the 600 foot contour or to those segments of the North-East Uplands within the Wye catchment boundary—i.e. to fully 75 per cent. of the county. Floodland and marshland, generally co-extensive with the breadth of a river's flood plain and with the spread of alluvial deposits, would also provide unsuitable zones for permanent habitation. Such deposits cover nearly 7 per cent. of the county area and are most extensive at Letton Lake, in the valleys of the Lower Lugg and Frome, over the vale of Wigmore and to the west of Leominster on the floor of the Lugg and Arrow valleys. On the other hand,

¹ E.g. Hergest Ridge, Rushock Hill, Wapley Hill, High Vinnalls, Harleys Mountain, Wigmore Rolls.

² Cusop, Cefn and Merbach Hills.

these localities provide rich permanent pasture and riverside grasslands which have influenced the siting of settlement on the nearby valley slopes. Thus settlements in the vale of Wigmore avoid the waterlogged alluvium and enjoy within the confines of one parish the contrast in land use from heathland on the higher portions through woods on the steep scarp slopes to arable at the base of the hills and grazing land on the valley floor.

The three adverse natural elements of height, slope and flood-land may be amalgamated and considered together under the West Midland Group classification of "Poor quality land".¹ By definition, this nomenclature includes, "land whose productivity is low by reason of the extreme operation of one or more factors of site or soil"—the extreme factors being extreme heaviness and wetness of soil, extreme elevation, extreme lightness of soil, or land otherwise useless to agriculture. The principal regions in Herefordshire in which this poor quality land predominates are the higher parts within the North-West Uplands and the Black Mountains, the central hills of the Wormsley-Dinmore area, the Woolhope Dome, the Malvern ridge, the Forest of Dean fringe and the Garway-Orcop-Dinedor-Aconbury hills; it is wholly absent from the remaining localities which are, therefore, all suitable for at least medium productivity. On a purely physical basis the established areas of poor quality land should contain either a relatively low population or a relatively less dense population than the remainder of the county. What are the facts as culled from the census details of 1801?

Within the Black Mountain region the floor of the Golden Valley supported compact villages of lowland character at Dorstone, Peterchurch and Abbeydore, and presented a sharp contrast with the Grey Valley which remained void of settlement despite its high soil fertility. Small hamlets and scattered farmsteads proved the dominant type of settlement between the Golden Valley and the abrupt rise to the main ridge, and were sufficiently numerous to support a population of 2,276 persons within the six parishes of Llanveynio, Craswall, Michaelchurch Escley, St. Margaret's, Newton and Longtown.² Bearing in mind the relatively adverse physical terrain of incised valleys, superior elevation and cold katabatic (i.e. gravitation of cold air down a steep slope) winds, this region cannot be regarded as either under-populated or sparse in overall settlement. The upland areas of the Black Mountains have been continually subject to contact with the Welsh cultural influence and, though Saxon colonisation penetrated the Golden Valley, the disappearance of certain Domesday

¹ West Midland Group. *Land Classification in the West Midlands*, 1946. This definition accords with that accepted by the Land Utilisation Survey under their categories 7, 8, 9 and 10.

² 221, 391, 397, 284, 215 and 768 respectively, which represented 1/30th of the County's total rural population over 1/21st of its area.

manors and the re-emergence of Welsh place-names have suggested the dominance of Highland cultures and a possible *raison d'être* for dispersed settlements. This close association with Highland Britain, in its turn, may suggest a practical reason for the relatively large upland population because, though unattractive to colonisers from Lowland Britain, the region offered a greater fertility and fewer hardships to Celtic inhabitants than did the more remote upland pastures and moorlands to the west. Similar arguments may also be applied to the area of Brilley parish to the north of the Wye valley and containing an upland population of 467 persons at 1801.

The difficult physiographic background and heavy forest vegetation of the North-West Uplands proved less conducive to human settlement and, apart from the more favoured village sites around the Vale of Wigmore, settlements were sparse, with several parishes containing less than a hundred inhabitants. Contributory to this population scatter may have been the frequent incidence of border strife and the destructive depredations of Norman baron and Welsh prince. The direct Welsh influence would appear to have been less virile than might perhaps have been expected from regional location, possibly because of the ease of lowland penetration along the structural formation of the country and the early consolidation of the Saxon advances by King Offa.¹

The poverty of population distribution over the North-East Uplands is less susceptible to a precise human or physical explanation. In comparison with the Black Mountains there are fewer areas of steep slope or poor aspect; the climate is less bleak; water supplies are certainly adequate for local needs; a heavy primeval forest cover is not suggested by either woodland vegetation, the evidence of place-names or by the frequency of timbered cottages. The land classification of the region by the West Midland Group as, "Major Category II with patches of Major Category I", again does not imply any serious physical limitations to an agricultural exploitation. Did the region offer fewer economic possibilities than the river lowlands of central Herefordshire, or could it be that the region was avoided by Saxon colonists advancing up the Teme valley because it harboured a Celtic population? The evidence has remained thin and inconclusive, though suggestive of a once Celtic population. Iron Age camps have indicated a former British element, as do the several ridgeways, the St. Michael and St. Mary church dedications and the hill-crest settlements such as Docklow and Bredenbury. At the time of the Domesday survey Leominster manor, which extended into the North-East Uplands on the west, paid certain honey rents and carucates of land were recorded in Ocle Pychard to the south; the name Pencombe might be of

¹ See the article by the same author on *The Historical Geography of Herefordshire*, in the Centenary Volume of Woolhope Club.

Welsh derivation. Whether or not the late survival of a Celtic population can be substantiated or disproved by detailed local research, the North-East Uplands certainly supported a sparse dispersed population from Domesday until 1801. Apart from Whitbourne and the adjacent Brockhampton parish on the Downtonian rocks of the Teme valley, no parish supported more than four hundred persons; thirteen contained a population of less than two hundred persons.

In the Malvern region to the south-east, villages at Cradley, Mathon, Colwall and Eastnor were sited along the north-south synclinal valley of the Mathon and Glynch brooks, and were separated from the hamlets of the Leadon valley by the wooded and largely unsettled slopes of the limestone hills. Upper Wyche formed the principal settlement on the main Malvern range, and was located on a main road route over the hills and close to the copious springs which issued from the transverse faults.

The two remaining physiographic regions of the upland perimeter—the Forest of Dean fringe and the South-West Uplands—were not densely peopled. Difficulties of relief, thin soils and poor water supplies had discouraged settlement on Chase Hill and Penyard Park, both of which remained under woodland, but the working of limestone and the smelting of iron had attracted some dispersed quarrying and mining settlements¹ to the plateau rim between the Coughton valley and the county boundary, though Hope Mansell, isolated at the head of a small north-facing valley, formed a small scattered village in which agricultural pursuits remained dominant. The South-West Uplands presented a region over which the Celtic tradition had undoubtedly proved vigorous; a sparse population cultivated the entrenched and somewhat inaccessible Monnow valley, but the density increased on the main ridge separating this lowland zone from the valley of the Garren Brook and rose to 450 persons in Garway parish around the Brownstone outcrop of Garway Hill.

The three regions which together comprised the intermediate Uplands held in common the physical disadvantages that slope, relief, soil and accessibility were less favourable to the expansion of human settlement than in the surrounding river lowlands. They might, therefore, have been expected to stand out as regions of relatively sparse human settlement. Such was not wholly the case though the twin peripheral hill rings of the Woolhope Dome, the steep outer slopes of Wormsley hill, and the wooded crests of Dinmore, Dinedor and Aconbury hills formed negative zones for settlement. The Aconbury-Dinedor region provided a zone of low population density to the south of Hereford—as did the Wormsley hills to the north-west—but the outline boundary pattern of these hill parishes merged into the adjacent lowland

¹ At Howle Hill Bull's Hill, Kiln Green, Leys Hill and Bishopswood.

parishes of similar population and were indistinguishable therefrom. In the Dinmore region the two small parishes of Ford and Newton together supported only just over a hundred persons, and the outer slopes contained thriving hamlets at Westhope, Bush Bank and Upper Hill. The Woolhope Dome, despite its adverse terrain and often poor water supplies, emerged from the 1801 census as a populous region because Woolhope parish supported seven hundred persons in the village and several common settlements.

Summarising the settlement pattern over the upland regions of Herefordshire in general terms, it may be concluded that physical considerations had exerted no overall restrictive influence. Settlement had certainly been limited by the forbidding scarp and vale topography of the Silurian outcrops in the North-West Uplands and Woolhope Dome; it had been repelled by the moorland tracts above the thousand foot contour, and avoided the steeply sloping areas of severe gradient and poor aspect. Elsewhere, however, the population distributions were often higher than in the neighbouring river lowlands, and there would appear to be no absolute correlation between the 65.2 per cent. of parishes with a population of less than three hundred persons and the regions of adverse physical terrain as defined by steepness of slope, elevation, poor soil and low agricultural value.

Conversely, the lowland areas, developed upon the Dittonian and Downtonian strata and classified by the West Midland Group as at least of medium productivity when under good management, do not necessarily emerge as blank (i.e. non-populous) areas on the accompanying map. Three examples may help to establish this essential point. Firstly, settlement within the Ross lowlands on the right bank of the river Wye, and particularly within the Garren and Gamber catchment areas, was essentially of a dispersed character. Within this Domesday region of Archenfield, the three-field arable system does not seem to have developed and a pastoral economy has proved of primary significance. Welsh customs prevailed until at least the twelfth century, and Welsh place-names, Celtic church dedications and stone cottages of Welsh architectural character have survived to the present time. Secondly, parishes situated to the north-east of Hereford between the Lugg and Frome valleys and settlements lying between the Woolhope Dome and the river Leadon were likewise remarkable for their low population density. Place-name evidence has suggested the former preponderance of woodland and its late clearance; water supplies from the Downtonian formations were not abundant and superficial deposits did not offer a variety of dry settlement sites. Neither of these two factors, however, would appear to account wholly for the marked paucity of settlement, especially as Roman roads traversed the region to permit a lowland route of access from the Severn lowlands and facilitate the entry and clearance of forest by Saxon colonists. Thirdly, to the west of Hereford the fertile

soils and flat terrain of an abandoned river course had previously nurtured the Roman town of Magnis and its attendant agricultural villas to suggest that the land was not then in the least physically repellent to human settlement. As the centuries of subsequent lowland colonisation have produced only small scattered villages and hamlets a tentative explanation of the low population density may be the close proximity of Hereford city. During the lengthy period of border unrest which coincided with the formative period of villages, Norman forays and Welsh sorties proved frequent and the levies of both sides harried the countryside for their daily sustenance. Such unsettled conditions were conducive neither to intensive arable farming nor to the expansion of subsistence agricultural settlements. To the south of Hereford the persistence of woodland and the late survival of royal forest formed additional restrictive factors whereas, further upstream, the marshy and waterlogged tracts of Letton Lake prevented any large-scale settlement. The innate hostility between lowland and highland cultures may also have contributed to the general sparseness and deterred potential settlers of peaceful disposition, because, in 1801, the several parishes along the border zone of the Wye valley invariably contained small populations and separated more populous areas.

As the incidence of water supply and the adverse effects of physical environment cannot adequately explain the low total density of population within the county area, it is necessary to consider the importance of regional position and extra-regional communications in relation to the economic attractions and exploitation of the county and to discuss their possible vitiating effects upon the expansion of rural settlement. Apart from the quarrying of clay for bricks and tiles, the extraction of limestone for agricultural purposes, and the use of local sandstone and limestone for building construction and road foundations, underground mineral wealth in Herefordshire occurs only on the perimeter of the Forest of Dean to the south of Ross. Here, however, the Carboniferous rocks are composed largely of limestones and not of the economically more important coal measure series. As a result, Herefordshire and agriculture remain almost synonymous terms;¹ the county has depended upon its primary productive industry and related trades for its economic prosperity and well-being and, because of this traditional background, the market towns have functioned primarily as exchange points where agricultural produce could be bartered for a narrow range of manufactured products and non-local goods. In fact, it is probably the regular service needs of a self-sufficient and dependent rural hinterland which has influenced the evenly spaced network of market towns. Thus

¹ For a statistical analysis of cereal crops in Herefordshire at 1801, see *Geographical Journal*, 1952, p. 344.

Ledbury is equidistant from the three county towns and cathedral cities of Hereford, Gloucester and Worcester; Bromyard is similarly sited between Leominster, Hereford and Worcester; Ross between Hereford, Gloucester and Monmouth. Likewise the relative growth and expansion of the individual centres has been controlled by the prosperity of agriculture and the numerical size of the dependent parish populations within their immediate vicinity.

The disability of having neither large urban markets nor manufacturing industries to create and foster a regular demand for cultivated products would tend to induce a marked lack of incentive to other than subsistence agricultural pursuits within the nearby rural communities and thus limit their size, whereas a rich expanding market town would have provided a regular output for their products and encouraged the expansion of population. Beale has suggested three pertinent examples.¹ He bemoaned the failure to cultivate nuts, so greatly in demand at the best tables in France and growing so abundantly in the county; he bewailed that, "for gardens we have little encouragement to design more than is for the necessary use of our Families"; he mourned that, "by defect of transportation, our store of Cyder is become a snare to many". In 1805 it was stated that the yield of wheat, one of Camden's three W's for which Herefordshire was famous, did not "correspond to what ought to be grown in situations so favourable".² Duncumb, quoting from a revealing letter of 1636, records, "there are not in the kingdom a greater number of poor people, having no commodity amongst us for the raising of money, but some small quantities of fine wools which is now decayed for divers years past".³ Herefordshire lacked the economic incentive to expand and develop her natural resources, was unable to make full use of her latent agricultural potential and suffered from the disability of having neither large urban markets nor manufacturing industries to sustain a regular market for her products. These innate difficulties were aggravated by the additional restrictive handicaps of inaccessibility and remoteness, and are faithfully recorded for posterity in the low population density of the county.

Communications with external regions have always proved difficult. It was stated that, "The roads in Herefordshire have long been distinguished as proverbially bad; they are such as one might expect to meet in the marshes of Holland or among the mountains of Switzerland".⁴ They were further described as narrow, sunken below the surface and impassable in bad weather—conditions which may well have resulted from the lack of good

¹ J. Beale, *Herefordshire Orchards—a pattern for all England*, 1724.

² E. W. Brayley and J. Britton, *A Topographical and Historical Description of the County of Hereford*, 1805, p. 427.

³ J. Duncumb, *History of Herefordshire*, 1804, p. 108.

⁴ E. W. Brayley and J. Britton, *op. cit.*, pp. 434-5.

road stone from the Downtonian formations and the impervious and tenacious character of this lowland marl. Pot-holes, ruts and mud would be frequent and some of the resultant transport difficulties may be gauged from the sale of navy timber from the Whitehouse¹ estate (1812-13); the felled product was first laboriously dragged to Canon Bridge and there lashed into rafts for floating downstream; a single tree required on the South Wales coast at Tenby was hauled thither by a team of twelve horses. Similarly the rivers were never wholly tamed or made navigable except at certain periods of the year. This failure may, in part, be attributed to the ancient drainage changes that have taken place in the rivers of the county, because the restricted valleys of the glacial overflow channels or of superimposed drainage are too narrow and steep sided along the Lugg, Teme and Wye gorges at Aymestrey, Downton, and Symonds Yat to be followed by communications. Shoals and rapids provide additional hindrances to river transport at these points. Also the many rejuvenated tributaries of the river Wye have steeper gradients than the main river and maintain a higher average velocity which, though frequently utilised to supply motive power for grinding mills and water wheels, makes the stream useless for river transport. These difficulties are epitomised by the series of Acts to make the river Wye navigable for shallow-draught barges² for, despite the several efforts made by the best engineering authorities, no structural achievements could control either the substantial changes in volume or the rapid fluctuations of depth. Admittedly, consignments of Forest of Dean coal were transported upstream from Lydbrook to Hereford after flood, and the returning barges could convey downstream surplus agricultural products such as wheat, hops, bark, cider, flour and timber; also the bells of Leominster Priory were despatched by Lugg and Wye to Chepstow for re-casting in 1750, but only "with various mishaps and in the face of many difficulties". Even so, the regularity of river-borne trade and guarantees of delivery remained inconstant and dependent upon the condition of the river. With these inherent disadvantages of road and river transport, the county could never be truly opened up for large scale commercial activities or receive cheap and abundant supplies of coal until the advent of the tramroad, canal and railway. As a result, the villages and hamlets retained a purely local significance and depended for their daily needs upon products grown in the immediate vicinity.

It is pertinent to couple with these pronounced trading difficulties the regional position and remoteness of Herefordshire in relation to the principal ports and commercial centres of Britain and, in

¹ A. S. Wood, "Sale of Navy Timber on the Whitehouse Estate in the Years 1812-13", *Transactions Woolhope Club*, 1936, pp. 33-4.

² John Lloyd (Ed.), *Papers relating to the History of Navigation on the River Wye*.

particular, to record the restrictive influence exerted by the basin-shaped relief upon the movement of peoples and the dissemination of ideas. The North-Eastern Uplands, the Malvern-Abberley range and the Forest of Dean provide an encircling hill perimeter to the east; the South-Western Uplands are interposed between central Herefordshire and the vale of Monmouth, and, in the west of the county, the scarp and vale topography of the Silurian formations and the deeply entrenched valleys and alternating ridges of the Black Mountains, restrict intercommunication with highland Britain. As pronounced breaches through these encompassing upland regions occur in only four localities,¹ the central river lowlands of Herefordshire are separated from lowland regions of cultural affinity to the east but, on the other hand, are subject to close contact with highland cultures to the west. At the junction of highland and lowland Britain, the county has functioned as a frontier territory between the cultures of the Celtic west and the Saxon east and as a zone of conflict between the pastoral people of Wales and the more settled agricultural inhabitants of England; this amalgam of diverse cultures has influenced many phases in progress, type and evolution of the now familiar settlement pattern.

If the geographical factors so far enumerated provide a satisfactory explanation of the low population density within the county, then the adequacy or otherwise of the water resources has been overstressed and forms but one aspect of this complex problem. The importance of the geological and physical background would appear to bear a greater human significance when related to the availability of mineral resources, to the agricultural economy of the county, to the limited number of inter-regional routes, to the difficulties of road and water communications within the county and to the basin-shaped relief. These factors, until the advent of the railways in the mid-nineteenth century, impeded external contacts, discouraged the expansion of trade, hampered the development of industry, and restricted the marketing of her agricultural products. When examined side by side in their historical perspective they would appear to provide the elements of a satisfactory explanation for the limited size of our towns and villages, and would account for the relative poverty of the county when seen through the eyes of itinerant topographers and historians of pre-Victorian periods.

In addition to supporting the lowest population of any West Midland county at 1801 the settlements of Herefordshire were essentially dispersed in character. Only occasionally was the

¹ The Wye entrance at Hay, the Monnow Gate at Pontrilas, the Leadon valley at Ledbury and the Brimfield-Orleton gap to the north of Leominster. In the first half of the nineteenth century all these valleys were followed by important road routes and by either a canal or tramroad, the two latter soon to be superseded by the railway. Not one of these lowland entries was suitable for river navigation along the existing waterways.

typical village grouped closely around its church, market, cross-roads or river fording point; more often the individual dwellings were spread over a relatively extensive area and contained undeveloped agricultural land (i.e. home paddock, field or orchard) within the heart of the settlement cluster. Away from this loosely developed and small parish or village nucleus, cottages, hamlets and farmsteads were scattered sporadically over the countryside with only a limited and infrequent grouping of dwellings, the whole being linked together solely by the road network and by interest in the cultivation of the land. It is now generally accepted by exponents of human and historical geography that rural settlements in upland parishes of predominant stock-rearing character have tended to consist largely of scattered homesteads surrounded by their own fields, whereas on fertile agricultural lowlands, the three-field system and communal labour required the highly developed social organisation of a compact village. In the words of M. A. Lefevre,¹ "*les récentes analyses des types d'habitat sont restées fidèles . . . à l'opposition entre 'Hofsystem' and 'Dorfsystem', termes rendues équivalents de dispersion et d'agglomération*". Dispersed settlements provide the Highland zone with one of its characteristic features; the nucleated village forms the more typical human habitat of lowland Britain. In this respect the intrinsic importance of the Welsh cultural influence upon the types of settlement within Herefordshire cannot be doubted though, in this one brief article, there remains space only for the mention of some of the more salient features.

In the first place, one should not underestimate the importance of the physical background and the regional location of the county. The sources of all the major rivers, except the Frome and Leadon, lie to the west of Herefordshire in the uplands of Wales and, on geological grounds, much of the county represents a topographical extension of these uplands. For example, the North-Western Uplands provide an eastern prolongation to Radnor forest; the eastern portions of the Black Mountains extend over the Welsh border into Herefordshire and fringe the river lowlands of the Wye valley; the South-Western Uplands extend over the narrow vale of the river Monnow into Monmouthshire; narrow prongs of highland such as the Garway-Orcop-Aconbury line of hills stretch eastwards from these border uplands to subdivide the agricultural lowlands into smaller regional units and permit the free eastward movement of highland cultures across an area whose soil fertility is more akin to that of lowland Britain to the east. As a result, until the Act of Union in 1536, the whole train of historic events is interwoven with the internecine conflict resulting from the gradual extension of settlement westwards over the central lowlands

¹ M. A. Lefevre, *Second Report of the Commission on Types of Rural Habitation*, Union Géographique Internationale, 1930, p. 70.

to the Wye Valley and thence westward again into the Welsh massif. Precise illustration of the extent of the Welsh influence at different periods of time are provided by the route of Offa's Dyke, in the pages of the Domesday Survey, by the evidence of place-names, by the dedication of churches to Celtic martyrs, and in the records of the *Liber Llandavensis*. Welsh raids into Herefordshire were frequent and on several occasions these destructive inroads were supported by the local gentry; for example, during the Glendower uprisings Prince Henry requested special reinforcements to cope with the Welsh within the county and to prevent the smuggling of supplies to the Welsh over the border. Welshmen themselves have always been numerous within the county and no precise line of demarcation can delimit their whereabouts. Thus (i) A document of 1368 to the clergy of the diocese stated that, "We wish you to hear the confessions of any of our Welsh parishioners who may wish to confess to you";¹ (ii) Houses of Welsh gentry referred to by the Welsh bards of the thirteenth and fourteenth centuries extended eastwards into Herefordshire at Wigmore, Weston, Hergest, Whitton, Bredwardine and Ewyas;² (iii) Cromwell's officers have stated that the Welsh language was commonly spoken in Hereford itself and, when the Bible was translated into Welsh, an Act of Parliament in 1563 charged the Bishop with seeing that copies of the translation should appear in those churches in which Welsh was spoken. The Act of Uniformity, 1662, provided a similar direction with regard to the prayer book.

It is suggested that the presence of these Welsh cultural groups within Herefordshire and the close contacts brought thereby with highland Britain have strongly influenced the dispersed and scattered dwellings within this county. Welsh associations, however, cannot be convincingly utilised as a universal explanation of all dispersed settlement. Other items have played their part and of these the more important would seem to be the pastoral economy of the county, the frequency of orchards, the piecemeal enclosure, and the late survival of forest. The importance of sheep and cattle may be substantiated from many an old document. A valuation of church property in 1291³ has indicated that the Benedictine Priory at Leominster owned a herd of 25 cows and a flock of almost a thousand sheep, and that Dore Abbey could then muster 54 cows and 2,740 sheep; regulations about fairs in Hereford promulgated by the Bishop's bailiff in 1241 make specific mention about the selling of wool and skins;⁴ the Leominster wool industry

¹ *Extracts from the Cathedral Registers, 1275-1575*, translated by E. N. Dew, 1932, p. 73.

² W. Rees, *An Historical Atlas of Wales*, 1951, plate 48.

³ *Taxatio Papae Nicolai IV*, A.D. 1291-4, from H. W. Phillott, *The Diocesan History of Hereford*, 1888, p. 149.

⁴ *Extracts from the Cathedral Registers, A.D. 1275-1535*, translated by E. N. Dew, 1932, p. 9.

was founded upon the fine textured fleece of the Ryeland sheep. The presence of fulling mills, the infrequency of open fields and their early enclosure, the invariable testimony of old terriers that pastureland obtained a higher price than arable, the many references to guilds of tanners, fullers, dyers, and glovers in the annals of the market towns—implicit in all these items is the importance of animals which, from our standpoint of settlement patterns, would necessitate the accommodation of workers such as the stockman, shepherd and herdsmen in close proximity to their daily employment rather than in any close grouping of houses which may have existed. It cannot be doubted that this pastoral background would tend to perpetuate the spasmodic dispersal of dwellings over the countryside.

Similar trends have resulted from the frequency of apple orchards. The county was generally reputed to be the orchard of England by the eighteenth century, and the ubiquitous prevalence of orchards has suggested the considerable effect exerted by this feature upon the human environment and the rural settlements at this period. John Beale in his epistolary address observed that, "from the greatest person to the poorest cottager all habitations are encompassed with orchards and gardens",¹ and that, "One reason why fruit do so abound in this Country is that no Man hath of late years built himself a house, but with special regard to the proximity of some ground fit for an Orchard . . . And many times Servants, when they betake to marriage, seek out an acre or two of Ground, fit for an Orchard . . . and thereon they build an orchard, which is all the wealth they have for themselves and their posterity". These developments required a larger area of ground within the house curtilage than would normally be required by the more typical garden, and undoubtedly influenced the format of villages. The typical effects may be deduced from this because a close residential grouping proved impossible when the boundary of house, garden and orchard passed back for about 400 feet away from the village street. The most natural location for any new residential building was at one or other of the outermost ends, thus further enlarging the village. Away from these loosely grouped centres of population, the eighteenth century cottage often occupied a long narrow strip of land parallel with the road, and contained a garden plot close to the main building with at least one orchard at the far end. Again, perforce, any new houses would have to be at this distance from the original cottage.

An additional item which has also perpetuated dispersal is the unofficial enclosure of common or waste land. The majority of early surveys have suggested a multiplicity of small fields, the break-up of old tenements and the distribution of their parcels among new tenants. Professor Gray² described an example from Marden

¹ J. Beale, *Hereford Orchards—a pattern for all England, 1724*, pp. 2 and 19.

² H. L. Gray, *English Field Systems*, 1915, p. 94.

in the second half of the sixteenth century in which one Richard Grene acquired ten and one-half acres through ten separate grants by copy. Piecemeal enclosure and the gradual encroachment upon common land possibly resulted from the pastoral economy and the small population size of the many hamlets which facilitated local agreement but, in its turn, they strongly influenced the dispersal of cottages for many tenants established their dwellings on one or other of their newly acquired plots. Thus at Marden where, "the traditional tenements had been broken up, and their parcels dispersed among new tenants in a state of chaotic confusion, utterly unlike the order and symmetry of Midland two- or three-field holdings".

Finally the late survival and slow clearance of woodland has tended to result in a scattered pattern of regional settlement. A comparative analogy may be culled from the Lower Avon valley of Warwickshire where the evidence of Saxon place-names and the Domesday survey indicate woodland over the Forest of Arden and open country in the Feldon to the south of the river—a distinction which has survived today in the contrast between the scattered habitations of the right bank and the clustered villages of the Feldon. In Herefordshire large tracts of rural territory were condemned to permanent royal forests or retained as hunting preserves until the late medieval period, and formed enforced negative areas of human dwellings until their piecemeal disafforestation.

From the above analysis it would seem that the regional remoteness of Herefordshire, its poor road and river communications, its lack of external trade, its general inaccessibility from the ports and the resultant disincentive to intensive cultivation have proved major limiting factors to the growth of villages. To these several factors might be added the vitiating centuries of border strife, the absolute dependence upon agriculture, the absence of mineral deposits and the encouragement of dispersed settlements by the pastoral basis of the county's economy, the ubiquity of orchards, the late survival of woodland, piecemeal enclosure of common land, and the frequent intercourse with highland cultures. The enigmatic fact that the county which contained, "the highest proportion and largest absolute area of first-class land of any of the West Midland counties"¹ should nevertheless support the lowest population density of any county within lowland Britain can be explained only by the complex amalgam of these diverse geographical agents and their mutual interaction with the physical environment. The broad outlines and major influences have been suggested; the local variations and irregularities of distribution have yet to be fully explained.

¹ West Midland Group, *English County*, 1946, p. 40.

THE OLD RED SANDSTONE OF THE MERBACH RIDGE, HEREFORDSHIRE, WITH AN ACCOUNT OF THE MIDDLE-WOOD SANDSTONE, A NEW FOSSILIFEROUS HORIZON 500 FEET BELOW THE PSAMMOSTEUS LIMESTONE

By THE REV. B. B. CLARKE, M.A., M.Sc.

Read 28th October, 1954

(With an appendix on the micropetrology of a siltstone by E. D. Lacy, B.Sc., F.G.S.)

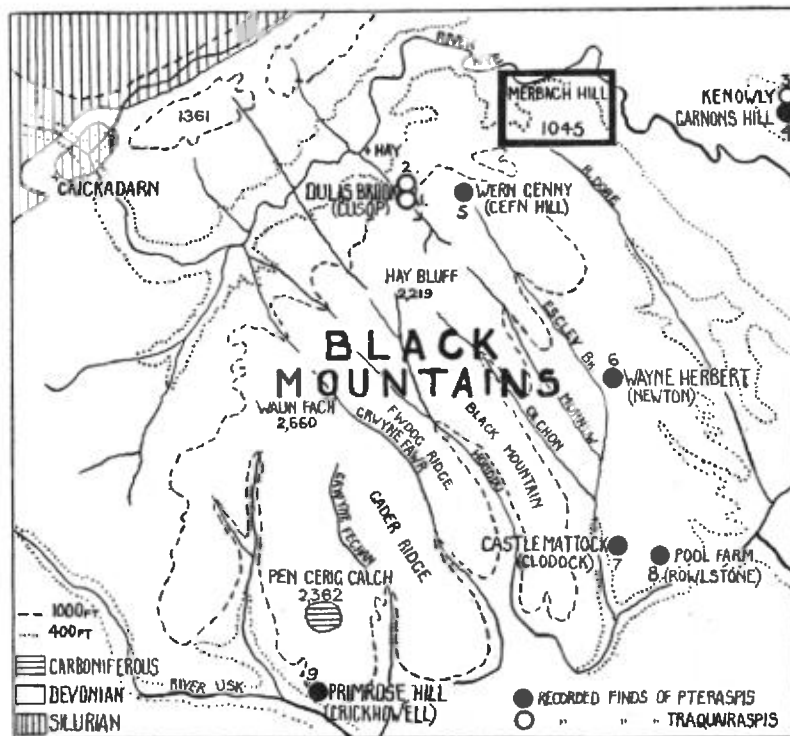
LOCATION AND LITERATURE

The area under consideration is shown on the map of the Black Mountains by the rectangle. This map also serves to indicate the neighbouring localities where researches have been carried out and the key brings together the various publications in which they can be studied. Where two names are given, the one in large letters shows the locality as it appears in geological literature, and the smaller name in brackets underneath is that of the nearest village which can be found on the 1 in. O.S. map.

The Black Mountains, apart from the high Pen Cerig calch, 2,362 feet, which has a capping of Carboniferous rocks, form a plateau of Old Red Sandstone which is deeply dissected by a number of south easterly flowing streams into valleys separated by parallel ridges. It is part of the most northerly of these ridges that is the subject of this paper. The valleys on either side of the ridge, are the Wye on the north, which has cut down into the Old Red rocks to 215 feet O.D., and the Dore, flowing in the Golden valley, on the south which has only cut down to 551 feet O.D. What I have called the Merbach ridge is the high ground separating the Wye valley from the Golden valley, and is made up of Merbach hill, 1,044 feet, Weston hill, 912 feet and Bredwardine hill 922 feet, together with part of Dorstone hill.

The whole area makes a wonderful piece of country from a scenic point of view. There is a fine view of Weston hill with its slopes covered with the timber of Weston hill wood to be seen from the top of Tin hill on the main Hereford-Hay road (A.438) at Staunton-on-Wye. The Wye itself makes the foreground, and the fine glaciated valley side of Weston hill with all the spurs removed rises up behind. At Tin hill we are on one of the still-stands of the Wye Glacier as it made its retreat during the Little Welsh Glaciation. From the top of Weston hill there is a magnificent view across the valley of the Wye with the fine meander in the neighbourhood of Letton in the foreground. There is also a view of the end of the ridge made by Merbach hill itself from the top of Newton lane. Here is one of the few places where weathering has clearly begun to pick out once again the hard and soft bands

of rock since the recent glaciation smoothed out these features. The main limestone of the *Psammosteus* limestones and a sandstone 150 feet below it make projecting platforms.



SKETCH MAP OF THE BLACK MOUNTAIN AREA.

References to the numbered sites shown on the above map are as follows: 1. *Traquairaspis pococki*, and 2. *Traquairaspis symondsi* (E. I. White, Q.J.G.S., 1945), 3. *T. symondsi*, and 4. *Pteraspis leathensis* (B. B. Clarke, Woolhope Trans., 1950), 5. *Pteraspis crouchi*, 6. *P. crouchi* and *Pteraspis rostrata*, 7. *P. crouchi*, 8. *P. crouchi* and *P. rostrata* (E. I. White, Brit. Mus. Bul., 1950), 9. *Pteraspis dunensis* (E. I. White, Q.J.G.S., 1938, and W. N. Croft, Geol. Mag. 1953).

STRUCTURE

The part of the Old Red Sandstone succession which is present at Merbach is a substantial part of the Downtonian with fossils of *Traquairaspis* towards the top, and a small part of the lowest beds of the Dittonian, with *Pteraspis*, apparently conformable, and making the capping to the ridge. The major structural feature is a gentle dip

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WESTON HILL, BREDWARDINE, SEEN FROM TIN HILL.
The river in the foreground on the right is the Wye.



LOOKING NORTH FROM THE SUMMIT OF WESTON HILL ACROSS THE WIDE VALLEY OF THE WYE.

In the far distance to the left is the high ground made by the Silurian rocks of the Aymestrey area and to the right by the Carboniferous rocks of the Clee Hill syncline, a magnificent view on a clear day.

to the south-east. The longest exposure is seen in the railway cutting at Newton (site 4 on key map¹) where this gentle dip is very clear. That this dip prevails over the area generally is suggested by the levels above ordnance datum where the *Psammosteus* Limestone outcrops in the Golden Valley. At Scar Cottage (site 6) this limestone is rather poorly exposed in the lane at 700 feet; some five miles further down the valley near Peterchurch the limestone is very well exposed in a fine quarry below Urishay Castle at 550 feet O.D.; and some 3½ miles further still down the valley, near Bacton, there is another fine quarry in the *Psammosteus* Limestone at Moorhampton Park Farm at 400 feet O.D.

A further confirmation of this general structure is seen in the Newton Marlstone which outcrops at Newton (site 4) at 500 feet O.D. and at Merbach brook 1½ miles along the strike at exactly the same level. There does not appear to be any major faulting, and there are no definite flexures; the beds everywhere have a general appearance of being horizontal but actually are very gently inclined to the south-east.

PROBLEMS OF FIELD MAPPING AT THIS HORIZON

The ultimate aim of any detailed geological study of a particular area will always be to produce a geological map of that area. It is however just this that is so difficult in the Old Red Sandstone. The practical uses of a detailed geological map of an area within the Old Red Sandstone are fortunately clear. Those whose concern is with forestry and agriculture want to know just what rocks are being weathered down and disintegrated to make the surface soil at any particular spot. For both of these the distribution of limestones, and other highly calcareous rocks, of marls and other very finely textured rocks that will give rise to rather heavy soils, and of sandstone and grits that will give rise to lighter soils are all of the greatest importance. The geological map is of service in so far as it gives information on all these points. It is also desirable to give enough particulars on the map to enable a geologist to see where the water bearing beds are likely to be at any particular point, and very occasionally to enable a geologist for some special purpose to make a column of the rocks that may be expected beneath any particular spot. It will be realised that all these points are mainly concerned with lithology. The problem in mapping is not that these particulars are difficult to obtain in the field or to set down on a map but that a geological map must also show the major geological divisions, and at this horizon this means mapping the Downtonian-Dittonian boundary. This is very difficult to map in the field for reasons that are purely technical. If there were an unconformity the problem would be easy because

¹ The numbered sites referred to in the text may be found on the geological map opposite page 218 on which they are indicated by ringed figures.

with the time lapse there would presumably be both a change in lithology and a change in fossils. Here we have no unconformity and so the Downtonian-Dittonian boundary is placed at a point where the important genus of the Heterostracan fishes—*Pteraspis* makes its first appearance. At almost the same horizon another important genus, *Traquairaspis*, seems to have become extinguished so that the break is an important one. The two species of *Traquairaspis* which are used as zone fossils at the top of the Downtonian are *Traquairaspis pococki* and *Traquairaspis symondsi*, the basal zone fossil of the Dittonian is *Pteraspis leathensis*. The real difficulty is that two of these are of little use to the field geologist for mapping. *T. pococki* is extremely rare. It has not turned up at all at Merbach though the area is comparatively rich in fossils. Indeed it is only known from one locality in the whole Black Mountain area. *P. leathensis* is more common but the finds of *Pteraspis* where the field geologist can be sure he has the species *P. leathensis* are very few. It is one thing to find a fragment of *Pteraspis*, it is quite another to find one where the species is certainly *P. leathensis*. One has to find an almost complete shield; and, to be quite certain, the characteristic blunt rostrum has to be still attached, a very rare occurrence. There are no specimens of *P. leathensis* so far from Merbach, though there is a fair amount of *Pteraspis* material. With *T. symondsi*, however, the position is quite different. It is far more common than either of the other zone fossils. One can be quite sure of identification from very small fragments. The finds do need, however, to be recorded carefully, taken home and etched with acid before they can be identified. This is a small price to pay for certainty about the stratigraphical position of a horizon in the Old Red Sandstone. In the writer's view the finds of *T. symondsi* are enough in number to make this a mappable horizon and therefore on the key map a group of rocks has been delimited and called the *T. symondsi* beds. This is a practice which could probably be used elsewhere, and possibly quite generally. It has the advantage of leaving room for the diachronic nature of the *Psammosteus* Limestones. We can thus speak of the *T. symondsi* beds with *Psammosteus* Limestones where these limestones are associated with the zone fossil or not as the case may be.

For the rocks above the *T. symondsi* beds it seems best to use the term Dittonian suggested by W. Wickham King coupled with an older name originally suggested by W. S. Symonds and call them the Dittonian Sandstones with Cornstones with *Pteraspis*. Although at Merbach the Dittonian is entirely an arenaceous series in some localities marls extend up into the Dittonian.

For the marls here, the most easily mapped strata of all, the name Downtonian Red Marls suffices. One of the things that is becoming clearer as more research is done on the Old Red Sandstone is that the Downtonian Red Marls are not a solid mass of marls

through their whole thickness. It will be best therefore, where possible, to indicate on the map any marked different lithology occurring within the Red Marls and where such a band becomes important, because it is fossiliferous, to give it a local name. Two such bands have been included at Merbach: the Newton Marlstone and the Middlewood Sandstone.

STRATIGRAPHICAL SUCCESSION

Dittonian	Dittonian Sandstones with Cornstones with <i>Pteraspis</i> . 165 feet (exposed)
Downtonian	<i>Traquairaspis symondsi</i> beds with <i>Psammosteus</i> Limestones 120 feet
	Downtonian Red Marls 530 feet (exposed)
	with Newton Marlstone 210 feet from the top (three bands of marlstone 4 feet thick and 15 feet apart with one band of sandstone one foot thick) and with Middlewood Sandstone 450 feet from the top (three bands of red sandstones six to 10 feet thick and 10 feet apart)

THE DOWNTONIAN ROCKS

THE STREAM SECTION OF MERBACH BROOK

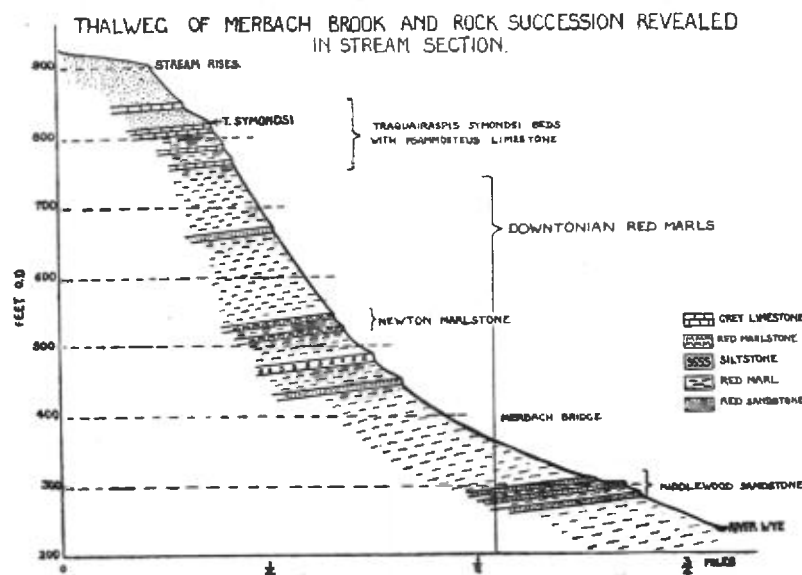
Rising at 900 feet on the saddle of high ground between the summit of Merbach hill and Weston hill is a small stream which flows north-west down a steep little valley, under the Hay road (B.4352) at Merbach bridge, past the Lions Den and so to the Wye (see key map). This stream course is of very great interest geologically partly because of the geomorphological features it exhibits and also for the great thickness of rocks exposed within its course most of which lie within the Downtonian. Reference to the Thalweg and accompanying geological section will be of help. The term Thalweg is used here to indicate the course of a stream considered in a vertical plane.

In the geomorphology the following points may be observed.

1. While the Thalweg is steep and in places very steep, the stream has not yet made a very deep cut into the side of the hill. The stream itself would appear to post date the departure of the ice in the Little Welsh Glaciation and it is on the steep slope of the

side of the main Wye Valley that this little stream was inaugurated. That it has so far cut so little into the hill testifies to the recent date of the Little Welsh Glaciation.

2. There is an abrupt change in the slope of the Thalweg at 820 feet. A glance at the lithological section and curve of the Thalweg shows that this occurs almost at the transition from the dominantly marly Downtonian rocks to the dominantly gritty Dittonian above. It would appear to be the hard resistant capping of Dittonian rocks that prevents the stream from cutting into the hill more quickly.



3. The average dip of the rocks exposed in this stream section is small and varies from two degrees to as much as 12 degrees in one place but always the dip is upstream. The lithological succession of the Downtonian is largely a series of soft marls with occasional bands of harder rocks which are sometimes very well jointed. The presence of these well-jointed hard rocks, with soft rocks above and below and an upstream dip, make the ideal conditions for the formation of waterfalls. The sandstones make good falls, the marlstones rather poor ones because of the lack of good vertical joints in this rock. The stream descends over the marlstone bands in a long series of short steps rather than by a substantial fall. The rock producing the best waterfall is a siltstone at 500 feet O.D. This rock has very good bedding planes, and extremely sharp

vertical jointing. The thickness of the hard band here is 12 feet and a fine fall exists of that height.

4. It is where the stream is passing over the hard bands that the rock floor is most easily seen. Where it is cutting through the marls the course of the stream is choked with huge boulders from the rocks above. Some of these are more than six feet across. They are mainly boulders of *Psammosteus* Limestone and cornstone. That so small a stream is able to carry such large stones, even in time of flood, is one of the marvels of earth sculpture.

5. The general course of the stream follows the line of greatest slope—i.e. the glaciated valley side as the ice left it. The dip of the rocks while being roughly upstream is not precisely so but a little to the left as we look upstream. So long as the stream is cutting through the marls it follows the natural slope, but when it strikes a band of hard rock a process of structural adjustment has imparted a slightly different direction, so that the course of the stream over the hard bands is slightly askew to the main direction of the valley—and all the waterfalls are similarly askew.

6. There is a series of springs which is of interest because they are formed under rather unusual conditions. Two normally are essential, a water-bearing rock with an impervious rock below it and a dip of the rocks in the same direction as the slope of the ground but at a smaller angle to the horizontal. Here the dip is down into the hill and we would not expect to find springs at all. As however it is very slightly askew one side of the valley can in places fit in with the required conditions, in this case the west side, i.e. the side where the bedding of the rocks is falling and does in fact in places cut the surface. Along this side of the valley there is a series of small springs. They are none of them large because the catchment area is so small.

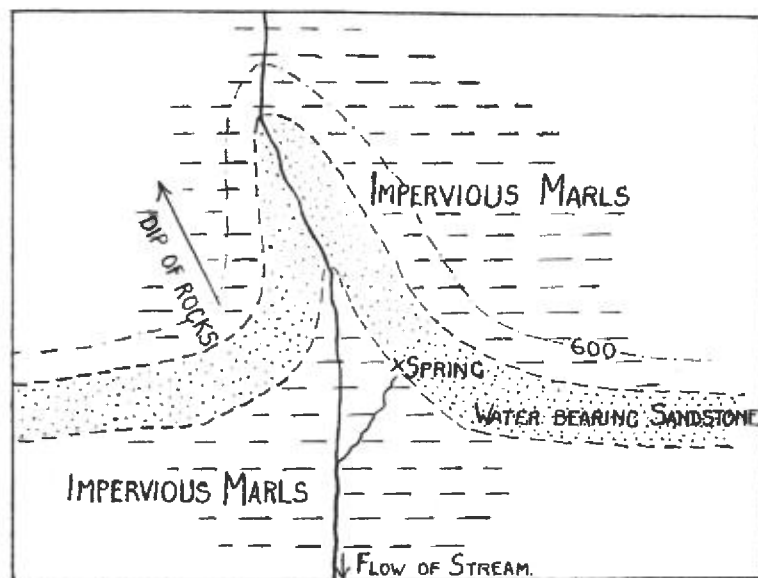
The lithological features of the rocks exposed in the stream section are as follows:—

The *T. symondsii* beds contain the *Psammosteus* Limestones and cornstones. There are also sandstones predominating towards the top, and marls predominating at the base but persisting in thin bands even to the top.

There are four bands of *Psammosteus* Limestone. It is grey in colour when fresh though the top band exhibits the usual cream and red honeycomb effect on weathering. The topmost band occurs at 850 feet O.D. and is about two feet thick. The next, the main limestone, is 42 feet below and is five feet thick. This band is entirely nodular. There is a fine exposure up on the side of the valley which provides the only natural cave in the *Psammosteus* Limestone known to the writer anywhere in the county. As the photograph shows it looks rather like a cromlech at first sight. The walls are of *Psammosteus* Limestone and cornstone,

the roof is a strongly current-bedded sandstone. All lie, however, in their natural position. Eighteen feet lower is another band of limestone $2\frac{1}{2}$ feet thick; and 20 feet lower still is the fourth, two feet thick. These nodular limestones can bear water and two of them give rise to springs.

Cornstones are a characteristic feature of the *T. symondsi* beds consisting of fragments of *Psammosteus* Limestone and sand-



Sketch map to illustrate the formation of springs on the side of a valley where the rocks dip at a low angle upstream, and where the direction of the dip is slightly oblique to the main direction of the valley.

stone, cemented into a very hard rock by a calcareous cement. The fragments are often extremely angular, and J. K. Charlesworth has used the descriptive phrase "sun splintered fragments" with reference to these breccias in the Old Red Sandstone of Ireland (see J. K. Charlesworth, *Geology of Ireland*, 1953, p. 60, also on the same page are some modern ideas about the conditions of formation of the Old Red Sandstone). Three cornstone bands occur in this stream section. They are usually only about six to 12 inches thick and pass upwards into sandstone. The lowest of the cornstones overlies the main limestone and it is this that contains the zone fossil *T. symondsi* at site 5. The sandstones are dull red in colour, and of a hardness that can be described as

medium to soft. Sometimes the sandstones are very micaceous and occasionally strongly current-bedded. The marls, which increase downwards in the succession, are of the same type as is found in the series below.

Red Marls: The rocks below the *T. symondsi* beds are of one dominant type—a red marl, with rare and occasional variations suggesting a temporary change in the prevailing marl producing conditions. It is often difficult to get a good exposure of the Red Marls, but there are some very good ones in this valley. When fresh and dry, the marl is a brownish red soft rock, exhibiting good vertical joints roughly columnar, and good bedding planes. Immediately it becomes wet both joints and bedding planes tend to disappear, and the rock weathers down to a rather heavy sticky red clay.

The harder bands occurring within the Red Marls are of three lithological types; sandstones, marlstones and siltstones.

There is a band of sandstone 10 feet thick 100 feet below the lowest of the *Psammosteus* Limestones which gives rise to a spring, and another 350 feet below the limestone. This last has been quarried at site 3. Some 300 feet below the main limestone is a series of marlstones which persist round the north side of the hill, and are well exposed at Newton (site 4). The Newton Marlstone is a variant of the normal red marls. It is unusually rich in calcite, and the dust which makes the fine grains of the marl is partially cemented by this mineral. The marlstone is red in colour, not very hard but contrasting rather sharply with the soft marls and making three rather poor waterfalls. It seems reasonable to regard the Newton Marlstone as a precursor of the *Psammosteus* Limestone, the cementation having not progressed so far in the marlstones as in the limestones. The siltstone which occurs 320 feet below the main limestone does not appear to have been recorded from any other area. It is a remarkable and interesting rock. It is a very fine-textured, banded siltstone, mainly greenish white in colour with bands of white and purple. In the whole rock only the white bands are very slightly calcareous. The rock has well-developed bedding planes and very sharply defined vertical joints with smooth faces. It seems to be 12 feet thick and makes a very fine waterfall of that height. The rock weathers to a dark brown almost black colour. The lime has been leached out of the calcareous bands and the whole fall is blanketed with a thick deposit of tufa. The siltstone consists of fine quartz dust and the softer mineral, felspar, with minute mica flakes. The purple bands have curious white spots in them. The siltstone bears water and gives rise to a spring where it rests on the marls.

Mr. E. D. Lacy has kindly prepared a micropetrological report on this rock which is printed as an appendix. In this section the quartz is seen to occur in extremely angular fragments and thin slivers which suggest a volcanic ash. As far as is known this is

the first appearance of volcanic material in the Downtonian rocks of the Welsh border country. Volcanic activity is, however, a very marked feature of the Lower Old Red Sandstone of Scotland where both ashes and lavas occur interbedded with sandstones. Volcanic dust can travel considerable distances and one of these volcanoes may therefore be the point of origin. Several vents are known, e.g. Coldingham near St. Abbs Head, Cocklawfoot on the slopes of the Cheviot, another in the Pentland hills south of Edinburgh, and two in Ayrshire at Maybole and Dalmellington. There are great patches of lava of this age also further north along the Highland Boundary Fault. Associated with the ashes from the Coldingham volcano there are remains of the Eurypterid *Pterygotus* which has a range from the Ludlovian through the Downtonian and up into the Dittonian. It has been found along with *P. crouchi* at Wayne Herbert in Herefordshire. There is thus a good possibility that this volcano at least was active at the time the siltstone under consideration was formed. The distance of the Coldingham volcano from Merbach is 270 miles. When the Alaskan volcano, Katmai, erupted in 1912 it was estimated that some five cubic miles of ash and pumice were ejected and 200 miles from the vent a blanket of ash one inch thick was recorded. Thus the distance of the Scottish volcanoes is not impossibly great, though if one of these is the point of origin the actual ash layer would not presumably be very thick. There is one other reference to volcanic material in the Old Red Sandstone of the Anglo-Welsh area. It is some ashy beds in the vicinity of Milford in Pembrokeshire. (See Skokholm in *Geol. Survey Memoir, South Wales Coalfield*, Part XIII, Milford, p. 95.)

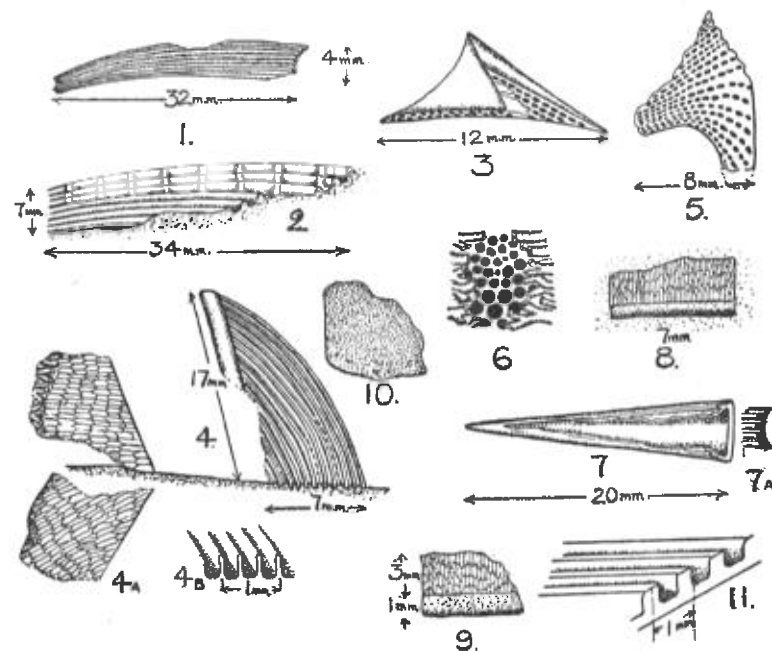
It will now be best to describe the Downtonian rocks at Merbach systematically giving the localities where they may be seen. The sites are those on the key map and for some of the more important fossiliferous localities a grid reference is given as well. We begin with the lowest beds and work upwards.

THE MIDDLEWOOD SANDSTONE

Three bands of red micaceous sandstone are exposed at site 1 near Paddock farm. They are six to ten feet thick and about ten feet apart. The uppermost is exposed in the hedge on the main road (B.4352), the middle one which has proved to be a fine fossiliferous horizon in the old quarry (ref. S.O./330.454), and the lowest in the bed of the stream which flows by the quarry. The Middlewood sandstone occurs in the Downtonian Red Marls 450 feet below the *T. symondsi* beds and 500 feet below the main band of the *Psammosteus* Limestone. In the middle sandstone band there is a cornstone. It is a detrital rock made up of very angular fragments. There are large lumps of purple sandstone, angular grains of quartz and other minerals, especially felspar. Only rarely is there a well-rounded grain. The presence of the purple sandstones can only

suggest contemporary uplift and erosion of parts of the sedimentary basin itself in Downtonian times. It is in the cornstone which is bright green in colour that most of the fossils were found. Both above and below the cornstone the sandstones are very false bedded indicating strong currents. The dip in the quarry is 6 degrees S.S.E.

FOSSILS FROM THE MIDDLEWOOD SANDSTONE IN THE RED MARL GROUP OF THE DOWNTONIAN AT MERBACH HILL.



For key see page 206

The middle of the three bands of sandstone has provided a strikingly rich fauna. There is a very large number of specimens, unfortunately all fragmentary. This is not in itself unusual in the Old Red Sandstone, in fact most material is fragmentary but it can be identified and made to yield useful information if more complete specimens with which the fragments can be matched are known from elsewhere. Almost nothing, however, is known about the fauna of this middle part of the Red Marls so that we have no material with which the specimens can be compared. It would seem best, therefore, at present to carefully record the

exact locality and describe the material that has come to hand in the hope that sometime more complete material may be found either in this area or elsewhere at the same horizon. The fossils are illustrated in two text figures and the keys describe the specimens and indicate which ones have been etched to reveal the histology.

Key to text-figure: Fossils from the Middlewood Sandstone in the Red Marl Group of the Downtonian of Merbach Hill (the numbers give the references to the British Museum collection where specimens with the letters "B.M." can be seen):

1. Spine of a large Acanthodian—spine is long, conical, slightly arcuate with very fine longitudinal ridges, 5 mm. apart, and rounded in section. The ridges are continuous except that they thin out towards the point. *Onchus* sp. B.M. No. P.32470.

2. Spine of a large Acanthodian. Spine is arcuate, slightly conical, with coarse longitudinal ridges, rounded in section and 1 mm. apart. Ridges are continuous except along anterior margin where they are broken into elongated tubercles. B.M. No. P.32471.

3. ? Spine of a small Acanthodian. B.M. No. P.32472.

4. Part of a plate of an undetermined Heterostracan, and a ribbed fin of an Acanthodian, possibly a dorsal fin with part of the dorsal crest still attached. B.M. No. P.32473.

4a. Obverse of part of (4) after etching.

4b. Ornament of plate magnified.

5. Fragment of cornua of very small Cephalaspid. B.M. No. P.32474.

6. Fragment of exoskeleton of Cephalaspid showing vascular canals, and mucous canal system beneath, after etching. B.M. No. P.32475.

7. Spine of Acanthodian. Spine is straight, conical, with anterior and posterior edges unequal. Flat side apparently smooth, rounded side ribbed. B.M. No. P.32476.

7a. Part of counterpart showing ribbing.

8. Scale of the Cephalaspid—*Didymaspis* sp. B.M. No. P.32477.

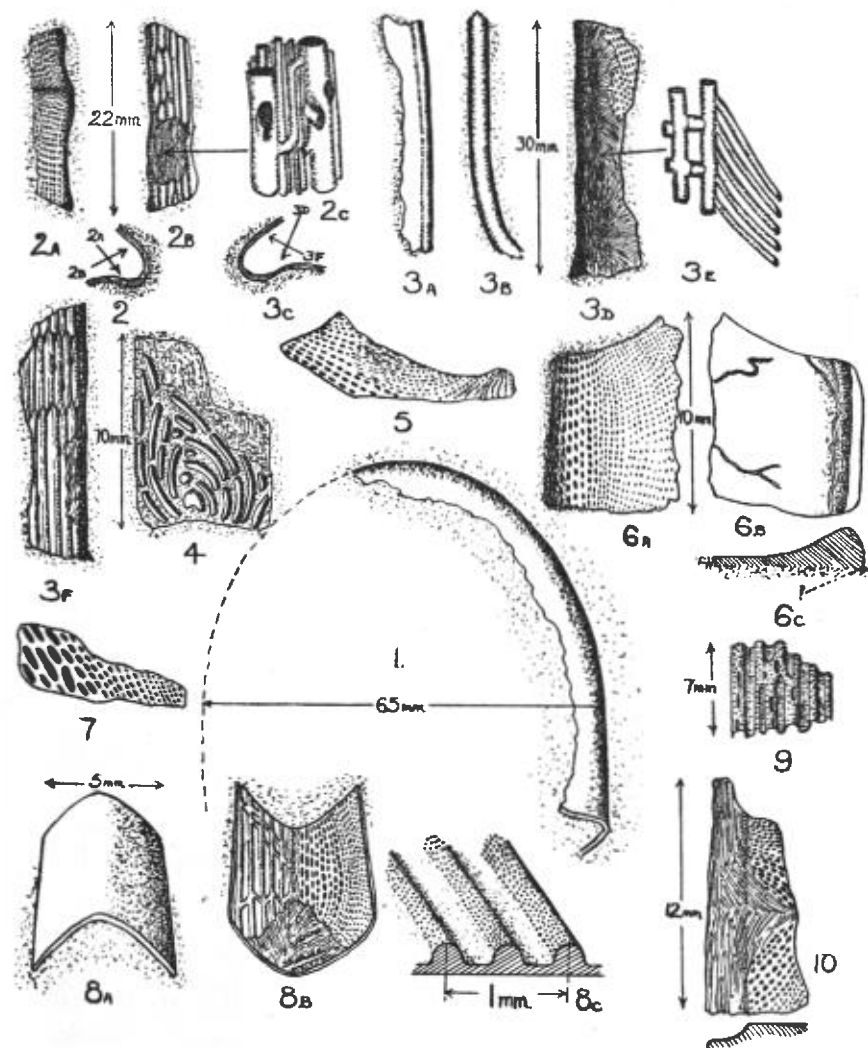
9. Scale of *Didymaspis*. B.M. No. P.32478.

10. Fragment of exoskeleton of a Cephalaspid with an unusually fine textured mucous canal system. B.M. No. P.32479.

11. Spine of an Acanthodian. Spine is very strongly ribbed with straight, regular and continuous ridges. *Onchus* sp. B.M. No. P.32480.

Among these fossils *Didymaspis* is rather common especially the scales of this Cephalaspid. Also common are spines of Acanthodians characterised by their very large size. The spines found

FRAGMENTS OF LARGE & POSSIBLY NEW CEPHALASPID FROM THE MIDDLEWOOD SANDSTONE IN THE DOWNTONIAN RED MARLS OF MERBACH HILL.



For key see page 208

here suggest that the Acanthodians of the middle part of the Downtonian were much larger fishes than those of the higher beds.

Then there is a large amount of material from this site with the same characteristic ornament which is illustrated separately. While most of the material belongs to a large Cephalaspid, differences, e.g. the difference in size of the fishes represented by 1 and 8, suggest there may be more than one species represented.

Key to text figure: Fragments of large and possibly new *Cephalaspids* from the Middlewood Sandstone in the Downtonian Red Marls of Merbach hill.

1. Part of rim of cephalic shield showing rostrum to be rounded and without any rostral angle. B.M. No. P.32481.

2. Counterpart of 1 showing the flattened margin of rim. B.M. No. P.32482.

2a. The same after etching showing fine network of mucous canals and one sensory canal reaching the very edge of the shield.

2b. Vascular canals removed over part to reveal a series of much larger, generally parallel linearly arranged canals.

2c. Part of the vascular canal system of 2b much enlarged.

3a. Another fragment of the rim of the cephalic shield showing the flattened margin. B.M. No. P.32483.

3b. The side elevation of 3a showing that the rim of the cephalic shield was not entirely flat.

3c. Cross section of counterpart of 3a.

3d. One side of rim of exoskeleton after etching showing fine radial canals removed in one place to reveal fine network of mucous canals beneath, i.e. nearer the outside of the exoskeleton. B.M. No. P.32484.

3e. Radial canals of 3d much enlarged.

3f. Other side of rim of exoskeleton showing large linearly arranged canals with fusions along clearly defined lines. Deep hollows in the canals themselves along some lines and elsewhere. These do not seem to be in the nature of pores but rather indentations in the canals themselves perhaps representing bony projections, though their purpose is not clear.

4. Part of exoskeleton where the usual linear arrangement of the large canals is replaced by a generally circular arrangement. Possibly an orbital area. The ornament here is the same as in the other specimens but the arrangement is quite different. This may be a Heterostracan and not related to the others. B.M. No. P.32485.

5. Radial canals removed over part of the area to reveal fine network of mucous canals. B.M. No. P.32486.

6a. Part of the exoskeleton with rim showing three sensory canal grooves. Note that one is parallel to the margin and not far from it. B.M. No. P.32487.

6b. Counterpart of 6a after etching revealing fine network of mucous canals. B.M. No. P.32488.

6c. Cross section.

7. Specimen etched showing fine network of mucous canals becoming coarser to one side. B.M. No. P.32489.

8a. Fragment of rim. This seems to come from a larger specimen than 1 though the canal structure is exactly the same. B.M. No. P.32490.

8b. The same after etching showing the vascular and radial canals mainly removed, and the fine mucous canal network on one side of the exoskeleton, and the large linearly arranged canals on the other. It seems clear from the specimen that these two merge into one another at the margin of the exoskeleton. The very large linear canals are thus mucous canals of a much greater capacity than the finer mucous canals on the other half of the exoskeleton. B.M. No. P.32491.

8c. Part of 8b much enlarged showing the larger linear canals .5 mm. apart and covered with very minute tubercles.

9. Another specimen showing the deep hollows in the large linear canals. B.M. No. P.32492.

10. Part of the margin of the exoskeleton showing a sensory nerve; and the way both radial and mucous canal systems are influenced along the line of this nerve. B.M. No. P.32493.

We may summarise the description as follows: These are fragments of large Ostracoderms belonging to the Cephalaspidae. They have a rounded rostrum, a cephalic shield 65 mm. across with a marked flattened margin. They have the radial canals and the vascular canals characteristic of the Cephalaspidae. The mucous canal system in one half of the exoskeleton is a fine network. No polygonal areas such as occur in *Hemicyclaspis* are seen. The peculiar character of the species is a series of large linearly arranged canals about 0.5 mm. apart and when highly magnified covered with fine tubercles, which occurs on one side only of the exoskeleton. It is impossible to identify these Cephalaspids with any known genus. Some resemble *Hemicyclaspis* most closely.

The Middlewood Sandstone is also exposed at Middlewood itself, at the foot of Merbach on the north-west side, and at the confluence of Bach brook and West brook (site 2). Here are a number of quarries, now largely overgrown, but with one good exposure of six feet of sandstone, shaley towards the base, hard and massive towards the top. The general colour is purple but throughout are bright green patches—the so-called fish eyes. Under the bridge in the stream bed is a lower layer of sandstone exhibiting a very clear dip to the S.S.E. and very beautiful jointing—one series of joints being at right angles to the other.

Although no plants were found at Paddock farm, there were some impressions at Middlewood that looked like plant impressions but with no trace of carbonisation, which may be impressions of sea weed. While walking along a sandy shore recently with a fairly strong wind blowing the writer observed sea weed which had lain in the sand blown to one side by the strong wind and where it had lain was a perfect impression. One can visualise circumstances in which this impression could be preserved.

THE NEWTON MARLSTONE

The little hamlet of Newton is at the head of the Golden Valley, and it is a steep climb from Middlewood up to Newton. The rocks are splendidly exposed in the cutting of the disused railway. It was here that W. Wickham King found one of the original specimens of *Corvaspis kingi* mentioned by Sir Arthur Smith Woodward in an appendix to *The Downtonian and Dittonian strata of Great Britain and north-west Europe*, Q.J.G.S., 1934 (B.M. No. P.16545.) The present writer acknowledges his indebtedness to Mr. Wickham King who kindly described the exact location and enabled him to find the site again in the field. It is site 4 on the key map and just west of where the road B.4348 crosses over the railway line by a bridge. The dip of the rocks is E.S.E. and the dominant rock type is Downtonian Red Marl. In the marl, however, are several bands of harder rock. There is one of sandstone some six inches thick and another of marlstone some three feet thick. The marlstone is very nodular, the nodules being hard and calcareous. Even in the heart of the nodules the red colour is still maintained. The level of the outcrop at Newton is 520 feet O.D. The marlstone persists round the north side of Merbach and outcrops again at Merbach brook at the same level and also above Bredwardine in the lane just above the school at 400 O.D. Here as at Newton there is a thin sandstone associated with the marlstone. The rock has been given a local name partly because of its persistence in this area but mainly because of the association with W. Wickham King's find of *Corvaspis kingi*. The marlstone occurs through some 30 feet of rock—the top being some 200 feet below the *T. symondsi* beds and 250 feet below the main *Psammosteus* Limestone. The Newton marlstone is thus probably the lowest point in the Downtonian where *Corvaspis* has so far been found (see D. L. Dineley—*Notes on the Genus Corvaspis*, R. Soc. Edin., 1953, for general distribution). The placing of the Newton marlstone in relation to the *T. symondsi* beds gives to *Corvaspis* a rather greater time range than it was formerly thought to have. It is now possible it extends down into the Downtonian much further than the topmost beds, until now believed to be the lower limit. The writer is informed however that the specimen P16545 was labelled "loose" by W. Wickham King, and thus the downward extension of *Corvaspis* to the Newton Marlstone is at present tentative.

"TRAQUAIRASPIS SYMONDSI" BEDS

The *Psammosteus* Limestones which occur in the *T. symondsi* beds at Merbach are not well exposed, and do not seem to have been quarried for lime burning as elsewhere. They are best exposed in the Merbach brook stream section and there is another moderately good exposure in the lane which ascends the hill from the hamlet of Bach in the Golden Valley. The exposures are on the roadside between the old railway and Scar cottage. There are three bands of nodular limestone at 750, 690 and 665 feet O.D. There are a number of isolated large boulders of the limestone in the lane from Crafta Webb towards the summit of Merbach at 900 feet O.D. These are probably glacial boulders. There is a very large lump of the limestone sticking out of the turf below Crafta Webb at 750 feet O.D. which may be *in situ*.

It is the cornstones above the *Psammosteus* Limestone that mainly contain the zone fossil *T. symondsi*. Opposite Scar cottage 30 feet above the topmost limestone is a quarry with sandstone and a green cornstone, remarkable for the size of the fragments of sandstone and limestone within it. They average $1\frac{1}{2}$ to 2 inches and one piece of sandstone measured six inches in length. The cementing material is a green calciferous sandstone. The cornstones from this quarry (site 6) yielded fossils: *T. symondsi* and several ichthyodolulites—spines of *Onchus* and also a toothed edged spine. This quarry also exhibits an interesting erosion surface making the junction between a massive well jointed hard sandstone and a soft flaggy sandstone. The hard sandstone has been worn into an undulating surface, and the hollows later filled up with the soft flaggy sandstone. Strong current action, when powerful currents laden with sand made an energetic erosive force gouging the hollows in the hard sandstone, followed by quieter conditions with the laying down of the soft sandstone, is a possible mode of origin. Temporary uplift above sea level and sand blasting in high winds followed by submergence and then deposition of the soft sandstone is another possibility.

In an old quarry north-east of Llan farm (site 7) at 800 feet O.D. there is ten feet of massive greenish grey sandstone. Near the base is a cornstone some 14 inches thick. It is here that the richest fauna and flora anywhere in the *T. symondsi* beds at Merbach was obtained. The grid reference is S.O./313.432. The fossils are *T. symondsi*, *Anglaspis macculloughi*, *Tesseraspis*, sp., *Corvaspis kingi*, the symphyseal tooth whorl of a large Acanthodian *Ischnacanthus*, spines of *Onchus* and a number of plant fragments including a very fine *Parka*. There is considerable variety in the shape of the tubercles which ornament the plates of the *Tesseraspis* specimens. These are different from those figured by L. J. Wills in *Rare and new Ostracoderms from the Downtonian rocks of Shropshire* (R. Soc. Edin., 1934), the species has therefore been left as not determined. This site is above the bands of *Psammosteus* Limestone. The

nearest exposures are in the lane below Scar cottage at 750, 690 and 665 feet O.D.

A little to the east (site 8) at 825 feet O.D. is another quarry exposing a massive sandstone and at one end a cornstone. It is indicative of the small lateral extent of many of the cornstones in the *T. symondsi* beds that though the cornstone is present in the east end of the quarry, at the west end it has become completely replaced by sandstone. There is also some fine current bedding to be seen here. The fossils from the cornstone include *T. symondsi*, spines of *Onchus*, a toothed ichthyodorulite and a large spine of an Arthrodiran.

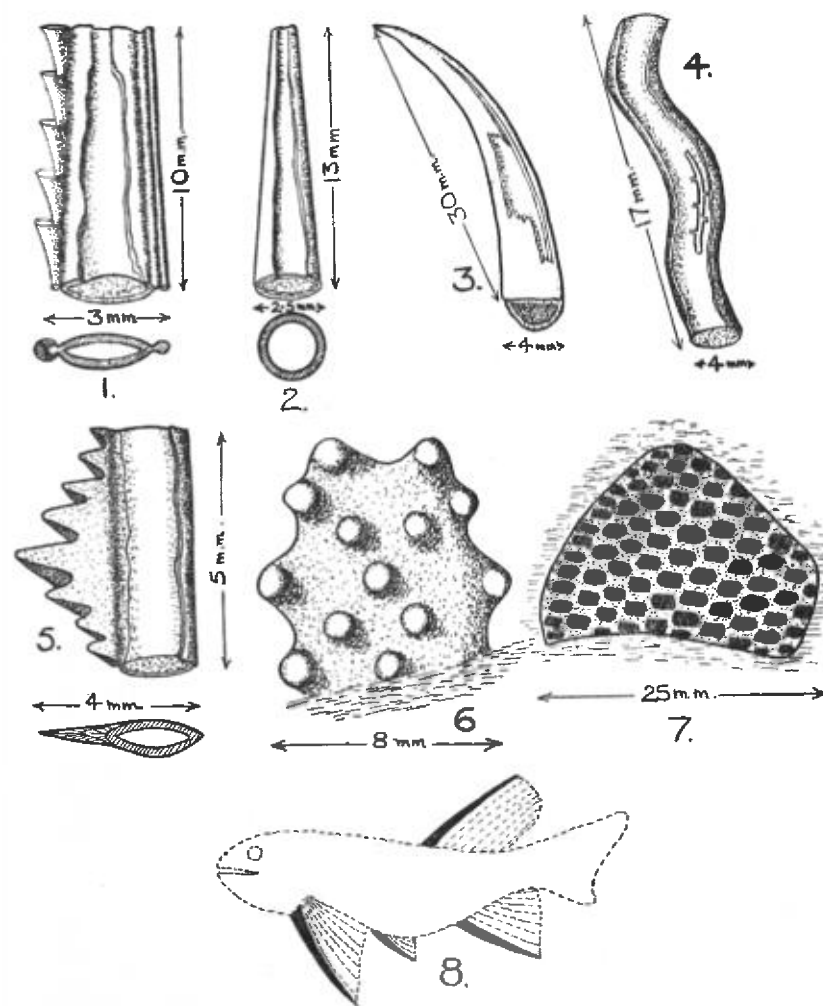
Other exposures of the sandstones in the *T. symondsi* beds which did not yield fossils are above Pine Street dingle (site 9), at the north end of Caelees wood (site 10) and in the stream bed behind the ruined house Crafta Webb (site 11). The second of these has about it some feature of interest. There are some eight feet of sandstone exposed here altogether. The top $2\frac{1}{2}$ feet is a dark grey flaggy sandstone passing laterally into a massive hard calcareous sandstone. The point of interest is the extreme abruptness with which the change takes place. In places this sandstone is bored by tiny holes. No trace of any organism could be found. The writer has seen sand on the sea shore at the present time bored in a similar way by insects. This class of the Arthropods is not known with certainty earlier than the Carboniferous. Insectæ are represented in the Permian and become progressively more common in the Jurassic and later formations. That the range of this class may extend back into the Devonian and the boring of this sandstone may be the work of some insect is however a possibility. Some of the best fossils from these beds are illustrated in the two text figures. The description of each is given in the key.

Text figure : Acanthodians, Arthrodiran and Plant fossils from the *T. symondsi* beds, Merbach Hill.

1. Spine of Acanthodian, conical, smooth except for row of teeth along one edge and single thread along the other.
2. Smooth straight conical spine of Acanthodian.
3. Spine of large Acanthodian, conical arcuate, marked bevel, smooth and without ornament.
4. Spine of Arthrodiran.
5. Straight smooth spine of Acanthodian with row of strong crenulations along one edge.
6. Symphysial tooth whorl of large Acanthodian cf. *Ischnacanthus*.
7. Plant—*Parka*.

8. Reconstruction of the Acanthodian fish *Acanthodes* after Agassiz to show the position of the bony spines of these fishes (in full black).

ACANTHODIANS, ARTHRODIRAN & PLANT FOSSILS FROM THE TRAQUIRASPI SYMONDSI BEDS, MERBACH HILL.



For key see page 212

Text figure: Heterostracans from the *T. symondsi* beds of the Downtonian of Merbach.

1. *Traquairaspis symondsi* after etching.
 - 1a. Highly magnified portion to show the characteristic shape of the ridge ornament of *Traquairaspis*—a series of deeply crenellated ridges and deep parallel hollows.
2. *T. symondsi*.
3. Ditto with a lateral line canal.
4. Ditto with vascular canal system preserved in part.
5. *Tesseraspis* sp.
6. Ditto.
7. Ditto.
8. *Anglaspis macculloughi*.
 - 8a. Dentine ridges of *Anglaspis* enlarged. The spacing is $2\frac{1}{2}$ per mm., i.e. exactly as the Earnstrey brook specimen described by L. J. Wills.
 - 8b. Calciculous layer of *Anglaspis*. The tiny hexagonal areas are 4 per mm. (Note the same layer in *Pteraspis* has a similar structure but the areas are larger and polygons less regular.)
9. Fold in the dorsal shield of *Anglaspis* near orbit.
10. *Corvaspis kingi*.
 - 10a. Ditto with dentine ridges much enlarged (spacing 2 per mm.).

THE DITTONIAN ROCKS

These beds make the hard capping of the hill and consist of sandstones with cornstones containing fragments of the Heterostracan *Pteraspis*. The sandstones often present fine examples of current bedding especially the big quarry at the summit of Merbach (site 14). The dip of the false bedding is steeply to the south-east suggesting that the currents came from the north-west.

The cornstone with richest fauna occurs in a quarry south of Caemawr wood (site 12). The quarry is very overgrown. A number of large pieces of a grey cornstone lie in the bottom. It was not possible to find this rock *in situ* but the number of loose pieces of the same cornstone suggests it is there. It is very fossiliferous though the specimens are only fragmentary. They include a number of plant fragments all carbonised, three of *Prototaxites*, and four of *Pachytheca*. There were found also some specimens of *Poraspis*, one of which is a beautiful scale (B.M. No. P.32494), and three specimens of *Pteraspis*, none large enough to determine the species.

A quarry higher up the slope of Merbach at 1,000 feet O.D. (site 13) yielded some *Pteraspis* material of interest because of the structure of the plates revealed in these specimens, but again none

To face page 214



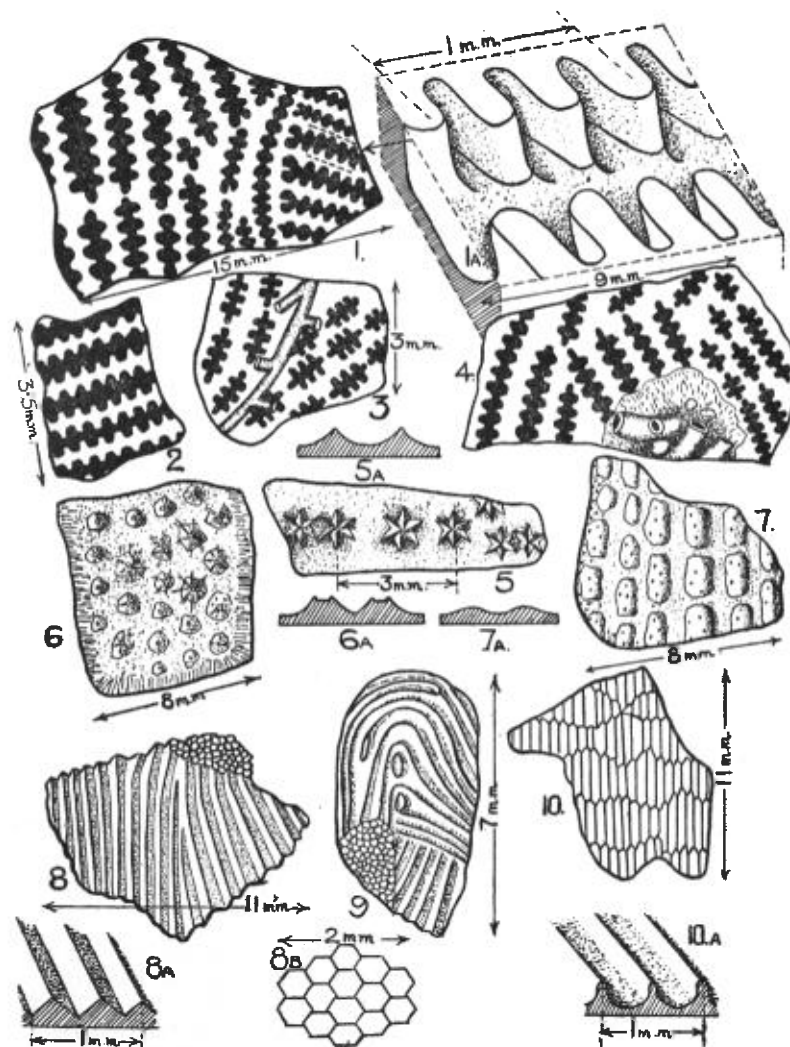
A CAVE IN THE *Psammosteus* LIMESTONE IN THE VALLEY OF MERBACH BROOK.

The rocks level with the hammer, seen in the middle to the right, are cornstone, those below, *Psammosteus* Limestone, and those above, making the capping, are a current bedded sandstone.



CURRENT BEDDING IN THE DITTONIAN SANDSTONE AT THE SUMMIT OF MERBACH HILL. (Site 14 on key map.)

HETEROOSTRACANS FROM THE TRAQUAIRASPIS SYMONDSI BEDS
OF THE DOWNTONIAN, MERBACH HILL, HEREFORDSHIRE.



For key see page 214

large enough to determine the species: there were two pieces of rather thick plates.

The first specimen, when fresh, appeared to consist of a flat calcitic layer with a faint impression of a number of small polygonal areas apparently cemented together. When etched with acid the top flat calcitic layer was removed and an upstanding honeycomb was left with clearly defined polygonal depressions. Stensio recognised four distinct layers making the shield of *Pteraspis* which he called the basal, cancellous, reticular and superficial layers. (See *Cephalaspids of Great Britain*, by Erik Andersson Stensio, 1932, p. 191 and text figure 69.) The flat layer on the top of this specimen is the basal layer of Stensio. The honeycomb is the cancellous layer. Beneath that can be seen the reticular layer without apparent structure or ornament. This layer carried the vascular canals. Beneath that is the fourth layer, the superficial layer of Stensio, marked with the dentine ridges characteristic of *Pteraspis*, in this case 11 to the mm. The polygonal areas of the cancellous layer are four- or five- sided and generally irregular in shape—i.e., the sides may not be of even length. The sides of the polygons appear to be tubular and these are believed to be the mucous canals. *P. leathensis* has five to eight dentine ridges per mm. This specimen has 11 so that the ornament is very much finer. (For full description of *P. leathensis* see E. I. White, 1950, *Bull. B.M. (N.H.) Geol.*, I, No. 3, p. 76.)

The second specimen has also a series of polygons separated by ridges which are tube-like in section. The polygons are five- or six- sided, the sides being quite straight. The polygonal areas in this case are larger than in the first specimen, being 1.5 per mm. There is no great significance in this however. A specimen of *P. rostrata* in the Hereford Museum shows clearly the four distinct layers. The cancellous layer appears to extend over the whole shield, in this case the dorsal disk. The polygonal areas are noticeably larger in the vicinity of the dorsal spine 1 per mm. only, and 2.5 per mm. elsewhere.

There are three quarries in the Dittonian rocks near Arthur's Stone. This is one of the most impressive archaeological sites in Herefordshire. It is a long barrow in which exposure to the weather has removed the soil covering and revealed the uprights and capping stones making the chamber and passage. It is considered to be Neolithic. More precise dating has not yet been possible. The stones of this cromlech are sandstones and cornstones. W. S. Symonds considered the sandstone to be exposed nearby, and from fragments of cornstone in the fields he thought that was of local origin as well (*Records of the Rocks*, 1872, p. 241). Now the cornstone also is exposed in a small quarry at the roadside on the edge of Caeperty wood (site 18). It is two feet thick, green in colour, with angular fragments up to $\frac{3}{4}$ inch across, consisting of calcified marl and grey *Psammosteus* Limestone. The only fossils were

fragments of carbonised plant material. The cornstone passes upwards into a massive well-jointed purple sandstone. West of Caeperty wood (site 17) and 20 feet above the last quarry is another with some 10 feet of massive purple sandstone. Across the field from Arthur's Stone, 200 yards to the south, and 40 feet below the first quarry is another (site 16) where there is a massive sandstone passing upwards into red marl. The solid rock is covered with a boulder clay and the altitude of the quarry is 860 feet O.D. A loose block in this quarry contained a fragment of an unidentified Ostracoderm with an unusual ornament.

700 yards north-west of Arthur's Stone (site 15) is a quarry shown on the O.S. map as an old marl pit. The matrix is mostly marl but it is sandy and has stones in it and no bedding planes. It is clearly a till. The stones are mostly from the Old Red Sandstone though two were found with the typical Upper Ludlow fauna *Chonetes striatellus*, *Dalmanella lunata* and *Camarotoechia nucula*. The quarry with this ground moraine is 920 feet O.D. and just on the Golden Valley side of the crest.

Round the summit of Weston Hill are a number of exposures of Dittonian sandstones at sites 20, 21, 22, 23, 24 and 25. The old quarry at site 23 exposes three feet of really hard clean sharp sandstone, greenish and pink in colour and almost a fine grained grit. The dip here is 2 degrees to S.S.E. At site 24 strong current bedding is visible. At site 20 (920 feet O.D.), above the massive sandstone, is a boulder clay with very large angular boulders up to five feet long. They lie at all angles in a sandy matrix. One small boulder of Silurian rock yielded the Upper Ludlow fossil *Dalmanella lunata*. Site 21 is a purple sandstone below which is a cornstone exposed in the track below the quarry. It is a coarse green limestone breccia. The fragmentary material is mostly *Psammosteus* Limestone and very angular. One spine of *Onchus* and one roughly round mass of carbonised material, possibly *Pachytheca* were found in the cornstone.

SUMMARY

The Merbach ridge separates the Wye Valley from the Golden Valley and comprises 650 feet of Downtonian rocks capped by 150 feet of Dittonian. Problems of field mapping at this horizon are discussed and *T. symondsi* claimed to be the only zone fossil serviceable for field mapping. A group of rocks it is proposed to call the *Traquairaspis symondsi* beds is delimited at the top of the Downtonian. At Merbach these beds contain the *Psammosteus* Limestones. The beds yield a rich fauna especially at Llan farm. The Downtonian Red Marls below contain two series of harder rocks which are persistent in this area and are both fossiliferous. They are given local names, the Newton Marlstone and the Middlewood Sandstone. In the first Mr. Wickham King found *Corvaspis*

kingi. The Middlewood Sandstone has a very rich fauna at Paddock farm. This includes scales of *Didymaspis*, Acanthodian spines and a considerable amount of fragmentary material of large Cephalaspids, one with an exoskeleton 65 mm. across, a different histology on both sides of the headshield and at present undetermined both as to genus and number of species.

The Dittonian beds which cap the hill contain *Pteraspis* and *Poraspis* and are mainly sandstones and grits.

ACKNOWLEDGEMENTS

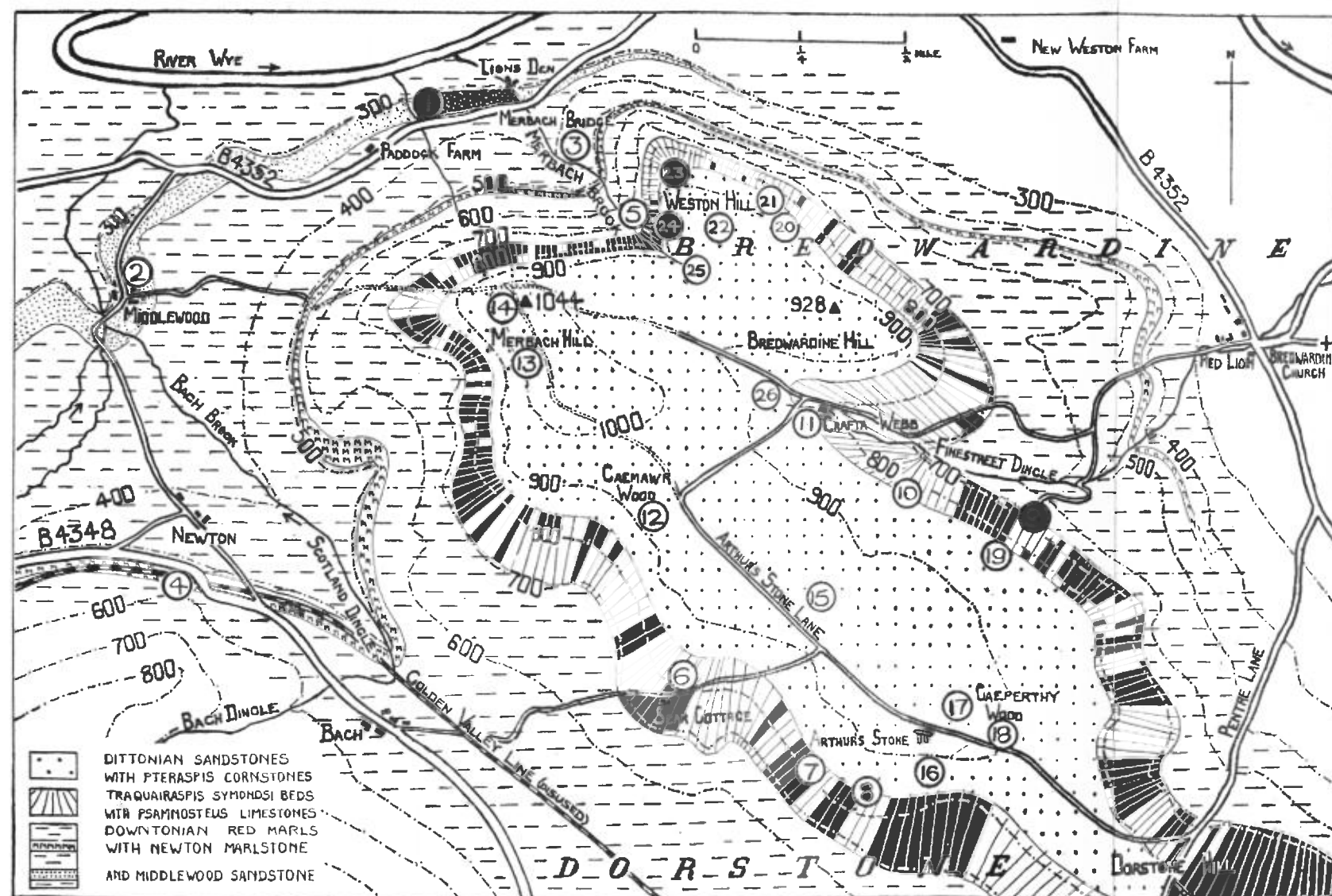
May the writer in conclusion express his sincere thanks to Dr. E. I. White of the British Museum for continued kind help with the fossils, to Mr. H. A. Toombs for generously lending his unpublished field maps of the area immediately to the west including the Wern Genny and important Dulas brook sites, to both for kindly reading this paper through in manuscript and for many helpful suggestions, to Mr. F. C. Morgan who has made such excellent slides of my maps and diagrams, and to Mr. E. D. Lacy for the following note.

A NOTE ON THE MICROPETROLOGY OF THE SILTSTONE FROM THE STREAM SECTION AT MERBACH BROOK

By E. D. LACY, B.Sc., F.G.S.

A large thin section of this rock shows a disturbed structure due to slumping after deposition in water. A band containing mineral particles up to about 0.3 mm. in length runs across the field, is from 3 to 4 mm. in width and contains irregular patches of entirely fine-grained sediment. A second similar band grades up unevenly into much finer material. A third comparable area is of wedge-shaped cross section tapering off through a series of billowy curves.

Very fine-grained sediment showing a wavy lamination occupies the centre of the slide. In a base of obscure chloritic material, showing very low interference colours, is distributed a large number of pale micaceous flakes measuring up to 0.03 mm. in length. Some of these are composite, consisting of laminae of mica and chlorite. In this matrix particles of quartz and feldspar, sometimes angular and sometimes amoeboid in outline, and generally not exceeding 0.02 mm. in size, are also plentiful. The ground-mass of the areas containing coarser material is similar, and in it are set quartz and abundant plagioclase up to 0.3 mm. in size, conspicuous for their highly angular shapes. In extreme cases concave surfaces are presented outwards or quartz may occur as acicular slivers. A variety of greenish or brownish biotite occurs, grains reaching



Geological map of the Merbach ridge area. This serves also as a key map, the ringed figures referring to the localities mentioned in the text.

0.4 mm. in length. The biotite is, however, usually chloritised or otherwise altered. Calcite is present as irregular patches in the areas containing the coarser fragments and probably represents a metasomatic replacement of the ground-mass. Limonite is locally present as moss-like growths.

In view of the fact that a large proportion of the quartz and feldspar is absolutely unrounded it is very difficult to resist the conclusion that the coarser material represents volcanic ash. The presence of relatively abundant biotite is consistent with this opinion.

ST. GUTHLAC'S PRIORY AND THE CITY CHURCHES

By PREBENDARY S. H. MARTIN, M.A.

This paper is based on scraps of information mainly derived from three sources, the charters of Hereford Cathedral, the registers of the Bishops of Hereford published by the Cantilupe Society, and the cartulary of St. Guthlac's Priory, a manuscript which has never been transcribed and which is somewhat difficult to read.

Some preliminary remarks may be made about the origin of our parishes. Evidence of the Saxon period is very meagre, because so much writing was done on paper, which was easily destroyed. When the trade in paper ceased after the Mohammedan occupation of Egypt, parchment was introduced, but even so information is scanty both for England and France (*see* article in the *English Historical Review*, Vol. 23, by Miss M. Deanesly). Possibly this is what happened. The Bishop established himself in this city, which with its neighbourhood became known as his parish. From the cathedral he sent out canons who preached in the outlying districts called the diocese. Close by the cathedral was the church of St. Guthlac, which also sent out a similar body of canons. When they gathered round themselves little congregations, they received, either from the Bishop or from local owners, grants of land in those places for their sustentation which were called prebends. Because they received from the Bishop authority to baptise, both the cathedral and the church of St. Guthlac became "mother-churches" of the chapels that were then built.

We now turn our attention to the church of St. Guthlac which perhaps was situated on the Castle Green. Its lands and possessions are stated in Domesday Book, and it had probably been in existence for many years before the Conquest. When the Normans came, there were many eventful changes. The victory at Senlac was followed by a rebellion, and when this was repressed, the Normans tightened their hand on the country, seized land for themselves, and built castles and churches. Hereford cathedral went on as before, but, though the church of St. Guthlac was allowed to continue,

a second church called the church of St. Peter and St. Guthlac, the present St. Peter's, was built not later than 1087 by Walter de Lacy, one of William's barons, who took away some of the prebendaries of St. Guthlac with their prebends and established them in his new church with some very generous endowments of his own. Certainly the canons of these two churches sang their daily services and ministered to the needs of their people till the year 1101, when Hugh de Lacy gave his father's church of St. Peter, closely joined as it was to the old church of St. Guthlac, to the abbot of Gloucester, who now became possessed of at least some of the revenues of both churches. The canons of Gloucester, however, were monks who lived according to the rule of St. Benedict, and the question now arises whether this rule was at once imposed upon the secular prebendaries of St. Peters. Canon A. T. Bannister thought it was, but it is possible to believe that they were allowed to continue under their provost, and that the parochial side of their life was maintained (see Bannister *Memorials of Old Hereford*, pp. 118, 119, and Knowles and Handcock, *Medieval Religious Houses*, p. 68).

Four charters only deal with this period. The first two are in the cartulary of Gloucester Cathedral, p. 38. They tell us that there was a clash between the abbot of Gloucester and the Bishop of Hereford in 1113. The Bishop wished to move the body of Radulf the son of Asketell from St. Peters to the cathedral; the Abbot opposed it. An appeal was made to Anselm, Archbishop of Canterbury, and to King Henry I, who decided that the body should not be disturbed. Whether it remained in St. Peters is not known. Again in 1134 the Bishop disputed the right of the Abbot to visit St. Peters, and an appeal was made to William, Archbishop of Canterbury, and to Payne FitzJohn, patron of the living. This again was decided in the abbot's favour. The other two charters are in the St. Guthlac cartulary (3 and 330). In 1132 the canons of St. Peters and the canons of the Cathedral both claimed tithes from Ocle Pychard in the presence of bishop Robert de Bethune and of Walter, abbot of Gloucester. They settled the matter between them. Again in 1125 one Ristaldus had bought some land in the open field (*terra campestre*) from Ulmiardus and his wife Aluine for one mark. The sale was registered at a court of citizens held in front of St. Peter's church (*coram omnibus burgensibus ante ecclesiam Sancti Petri de Herefordia*), and, to make assurance doubly sure, the deed was laid upon the altar by Ulmiardus and his wife.

In all this there is no mention of a prior. It is also interesting then to notice that there was an open space in front of St. Peter's as there is now.

THE PRIORY

We now come to the date when the priory church and the priory buildings were set up, somewhere about 1143. The words

of the Gloucester cartulary are: "Bishop Robert united the Church of St. Peter of Hereford, situated in the market-place, and the church of St. Guthlac, unsuitably situated within the circuit of the Castle itself, and brought them together with all their private possessions and dignities to form one church, and by his authority as bishop consecrated it for the perpetual service of the Lord as the church of the apostles St. Peter, St. Paul and St. Guthlac, built by him from its foundations outside the city in a place most suitable for religion, in the time of Gilbert the abbot." The monastic buildings, garden and cemetery occupied a considerable area stretching along the line of the old city wall in Bath Street on the one side, and on the other along the right hand side of Commercial Road as far as the little brook which we cross near the railway. The main gateway opened into Commercial Road somewhere below the Kerry Arms.

The Bishop transferred to the priory all the endowments of the old St. Guthlac's and of the new St. Peter's, with much other property besides, and placed them in the hands of a prior and monks. So at this point the old church of St. Guthlac ceased to function as a church, though its ruins remained for a long time, while our church of St. Peter's lost its prebendaries and was no longer in any sense monastic; it became purely and simply a parish church.

It is impossible in this paper to say much about the history of the priory; it would require more research than I have been able to undertake. To make a complete list of the priors, for example, would require a full transcription of the cartulary. The story of prior William de Irby and bishop Orleton has been told by Canon Bannister (*W.C. Trans.*, 1908, p. 20), who also wrote a paper about the rents paid to it from the fifteenth century onwards (*W.C. Trans.*, 1918, p. 32). Something too has been said about the sale of its property after the dissolution in 1539. The bishops' registers show that the priory on the whole had the confidence of the bishops; for example, they ordained clergy to take its services. When Bishop Beauchamp and Bishop Stanbury came to Hereford for their enthronement, they started from the priory gate at nine o'clock in the morning, barefoot and bareheaded on their way through the city. This rather conflicts with the picture in the window of the Stanbury chapel¹ where the procession comes over the Wye bridge. The Bishop frequently laid upon the Prior the irksome duty of collecting the king's tenth from the archdeaconry. In 1504 the prior, John Newton, a professor of theology, was authorised to deal with cases of heresy in the diocese (*Beauchamp 4, Stanbury 6, Mayew 65*).

It now fell to the Prior to administer the large amount of property that came to him, for the upkeep of the buildings, the sustenance of the monks and the fulfilment of those duties of hospitality to

¹ In Hereford Cathedral.

the poor and others which were expected from every monastic house in the country. The St. Guthlac cartulary is largely taken up with deeds of gift and deeds of sale of houses and lands in the city and elsewhere, all carried out by the Prior, subject always to the control of the abbot of Gloucester.

For example, the Prior had three mills in the city, one near the Wye and beneath the castle, *juxta ripam Wayae sub castello*, with some land belonging to it, another outside Eigne Gate, *super Yene extra portam occidentalem*, and another in front of their own gate, *ante portam eorum* (Charters 310 and 311, dated 1219 or earlier). Some land also in Russoc (Rushock) in the parish of Kington had been given to St. Peter's by Adam de Port who was lord of part of the Marches of Wales some time before 1130 (Charter 355). It was on the borders of his territory, which, perhaps, is the meaning of the words *per divisas suas*. His son, Roger, however, gave them to a Cistercian convent called Sancta Maria de Archivallo (Charter 361). As no such name is on the published list of Cistercian foundation the word may possibly be a mis-spelling of Abbeydore, which is not very far from Kington and was founded in 1147. It may be observed that the present church of Abbeydore is dedicated to St. Mary. The gift, however, must have been ineffectual, for in 1164 Adam de Port, the next in succession, confirmed the gift of the land to the priory at Worcester cathedral in the presence of King Henry II (Charter 329).

We learn in another Charter (No. 363) that the Prior built a mill there, first obtaining leave from the King's steward, William FitzAdelm (363). The witnesses on this occasion were Walter de Freine, who held the domain of Sutton and is called W(alter) de Moccas in Hereford Domesday (margin), and Master Walter de Map who may have been the famous Walter de Map who wrote the *Trifles of the Court* (*De Nugis Curialium*). The mill was leased to one William and afterwards to Wighard son of John. A later prior, Radulf de Foresta, sold seven acres of land in Russoc to Master Philip de Wanderton (365).

ST. PETER'S AS A PARISH CHURCH

When St. Peter's lost its money in 1143, it began life anew as a parish church under a vicar appointed by the priory who lived on what are called the lesser tithes, and it certainly prospered. The evidence for this is in the building itself. The old building of Walter de Lacy vanished and a much larger building took its place. The chancel with its beautiful arch and side chapel was built in the late twelfth or early thirteenth century, the tower was begun in the late thirteenth century and finished with its spire in the early fourteenth century, and the nave with its north and south aisles was rebuilt early in the fourteenth century. The present building, carefully restored, accurately represents what was

then done. See *Historical Monuments Commission for Herefordshire*, Vol. I.

If we ask, whence came the interest, the devotion and the generosity which led to the erection of this beautiful building, the reply is that no answer to this question has ever been written. We may suggest, however, that it was due to the desire of the city to have a church of its own, outside the cathedral precincts. When the Bishop and the corporation had different prisons, different officers and different territory, there was bound to be cause for some ill-feeling. There is, for example the case when a city officer demanded a tax from a house within the precincts, in consequence of which the city officials were obliged to do public penance in the Cathedral barefoot and carrying candles. (See *Swinfield's Register* of 1316, p. 510.)

Here follows what little has been gathered about St. Peter's.

THE STORY OF OWEN AND HIS SON

Some time in the thirteenth century, Owen of Hereford, who lived in Widemarsh, provided for the future of his son whose name may be Elias (the word is difficult to read) by giving his house and land to the priory. Unable through illness to appear himself, he sent his wife, Eme, and his other son, Stephen, to place the deed of gift on the altar of St. Peter's, and to report the matter to the Hundred Court (*per eosdem in pleno hundredo Herefordiae denuntiari*). It was agreed that the priory should feed and clothe Elias for ten years with a view to his entering the monastery. During that time Owen was to live in his house as a tenant, paying a rent of three shillings and two pence; if he died, his wife would continue the tenancy. When the term was up, he would re-purchase the house at a valuation fixed by citizens appointed for that purpose (*per visum legalium burgensium*). If the boy died, or was not accepted as a monk, or did not wish to become a monk, other arrangements would have to be made.

If Elias was seven at the time of the contract, he would be seventeen in ten years time, and so would be of an age to decide for himself. Nothing was said about his education, which, perhaps, was taken for granted. The charter contains the earliest reference to a hundred-court in the city. There was one in Worcester at that time, so it is likely enough that there was also one here, in spite of the fact that Hereford is not called a hundred in Domesday Book, and that later in 1316 the city was returned as being in Grimsworth hundred. This hundred court was probably co-ordinate with the Borough court in which Ulmiardus registered his sale (see above and Tate, *Medieval English Boroughs*, 1936, p. 45). William, the chaplain of St. Peter's, appears as a witness to this deed.

Another charter tells us that this chaplain had done some service to Juliana, widow of Paganus of Kingsland, who with his son carried

on a business in Hereford as a mercer. He bought some land from her for two and a half marks thus adding considerably to what he already held in the city. (No. 346)

The list of clergy that follows is taken either from the Bishops' registers or from the cartulary.

Before 1148	Hugh (Charter 383)
1191	William (Charters 327 and 328)
1230	Peter and John (Charter 234)
1280	Richard
1350	Richard of Beverley
	David de Hamme
1383	John Ingeyne
1420	Nicholas Trillek
	Thomas Rae
	Thomas Partrick
	William Kyngene
1438	Richard Groome
1475	Hugh Bucknyll
1533	Roger Brayne
Date uncertain	John Bemster

The four clergy of 1420 were probably in charge of the four chantries mentioned in Bishop Bothes' register. (See also Evans' *History of St. Peter's*, to which I am much indebted.) Their existence is a sign of the devotion and generosity of those who attended the church. In the fifteenth century the church was important enough to bring upon itself the censure of bishop Beauchamp for not ringing its bells when he was installed in the Cathedral in 1449. "On August 30th the Lord Bishop placed under an interdict the churches of All Saints and St. Peter's for not ringing their bells on his arrival in accordance with laudable right and custom. Next day, Sunday, however, on the humble submission of the clerks of the said parishes and in the presence of the Dean, on their acknowledgment that the bells ought to have been rung, he graciously removed the interdict." (Beauchamp, p. 6). In 1477 a large bell was hung in the bell-tower (*campanile*); this may be the bell that is still there. It was rung by the bailiffs' order in case of fire and public danger and sometimes at the beginning and end of the market. There was a door and passage from the street leading to the door of the tower, the door that now opens from the vestry into the nave, so that the "police" and others could have free access to the bell. (See Evans, *op. cit.*) It may be also that the church was popular for weddings, for in several cases special marriage licences were obtained from the Bishop's office with permission for only one publication of banns. (Mylling, p. 59.)

Nevertheless, towards the end of the fourteenth century Hereford suffered a great set-back because of the Black Death and the French wars, and the priory, as well as the church, felt the blow. This was why the abbot of Gloucester in the year 1391 obtained permission from the Pope to appropriate the remaining income of the living of St. Peter's, £50, on the plea that "the rents

of the priory were so greatly diminished by the pestilences that have long afflicted these parts and by which even divers of the animals have perished, that they cannot maintain becoming hospitality". (See Evans *op. cit.*) The abbot probably owed this to the efforts of his agent at Rome, William Bryt (Gloucester cartulary, p. 56). At this point the bishop of Hereford claimed fifteen shillings from the abbey, perhaps because, as there was no longer an induction at St. Peter's, he lost his induction fee. (See Trefnant's Register.)

So now the vicar has become a curate-in-charge employed by the Prior. His oath upon entering upon his duties is written in a late fifteenth century hand at the beginning of the cartulary of St. Guthlac:

"The oath of the chaplain of the parish church of St. Peter, Hereford:

"I, John Bemster, chaplain of the parish church of St. Peter, Hereford, during the whole time in which I shall be in this service will be faithful to the monks, the prior and convent of St. Guthlac, Hereford, rectors of St. Peter's church, and in my care for the parishioners of this church in which I represent these monks, in the administration of the sacraments, of the divine service, and of other duties which pertain to the office of a curate, day and night, will, according to the discretion given me by God, give all my diligence in carrying out the said service to the advantage of the monks, doing my best in deed and word, openly and in secret. All the money that accrues to the church from whatever source I will place in the box (*pixide*) given me by the prior without any deduction. Also I will enter in full or cause to enter in full the receipt of all sums of money and of all other incomings, on the day of receipt, stating from what source they come, in a paper account book (*kalendario*) to be provided for that purpose. Moreover for everything that I receive in the course of my duty in any way whatever I will render an account free of charge whenever I shall be asked to do so, keeping back nothing for myself, save only my salary due to me by agreement and by the settlement made by the said prior and his assigns. I will perform and carry out these undertakings, all and singular, which are to be faithfully fulfilled according to my ability in my priesthood."

ST. OWEN'S

Another church that was in the hands of the priory was St. Owen's, probably built because it was close to the gate of the city in Harold's wall. It seems to have been more independent of the priory than St. Peter's and is even sometimes called a rectory. A reference is made to it at the end of the deed of William I confirming a gift of land to St. Peter's, after which come the words (Gloucester cartulary, p. 85) "In like manner he (Henry I) confirms to St. Peter's the gift of the church of St. Owen (*sancti Audoeni*).

Near it lies one tithe and one penny daily (*cui adjacet una decima et unus denarius cotidie*).” Later, in the time of Bishop Reinelm Hugh de Lacy¹ gave the two churches to Gloucester abbey, repeating the words mentioned above. At the same time he gave three houses, one of Leard, one of Radulf the pilgrim, and one of Stephen the reeve (see Charter 412). Henry II in confirming this, added, “Let the church of St. Owen keep its penny from our alms *denarium suum de eleemosyna nostra plenum habeat, sicut carta regis Henrici testabatur*” (see Charter 416). The tithe may have been a tithe of land near the church, and the ‘daily penny’ may have come from the King’s alms, long lists of which are found in the Pipe Rolls. Though not specifically mentioned, it may well have been included in the lump sum of £3 0s. 10d. given annually to the priory. (See Pipe Rolls of Henry II *passim*.)

The situation of the church is clearly marked, for some land given to the priory is said to be “in front of the castle near the ditch in the direction of St. Owen’s church” (Charter 337). Earl Roger also gave some land here in 1154, hoping it might be suitable for growing vines to make wine for the sacrament (Charter 325). It may not have been suitable, for apparently the vineyard of the monks was in Hampton Park. Other land was given by Cecilia, probably a daughter of Payne FitzJohn (Charter 334). All this seems to have belonged to the priory till the dissolution, for the rent-book of St. Guthlac has a long schedule of houses and gardens within and without St. Owen’s Gate, and along Grope Lane² in the direction of St. Peter’s.

Two chantries belonged to the church, one dedicated to the Virgin and another to the Holy Trinity (see Rental, pp. 34, 35). In 1391 the Bishop granted an indulgence of forty days to those who helped to repair the church. The names of the incumbents are :

- 1332 Roger de Clocton
- 1353 William Dymock
- John le Red
- 1365 Richard de la Mare
- ? Birch
- 1388 Thomas Clark
- 1414 John Berewe
- 1478 Philip Lesmon

The building was therefore continually used as a church till it was demolished during the Civil War in the defence of the city. In 1666 it was decided not to rebuild the church but to unite the parish to St. Peter’s, which since that time has had four church wardens. (Charters 324–6, 412, 416).

¹ We are concerned with two Hugh de Lacys, the first, mentioned here, 1095–1107 and the other 1154–1186 (see p. 61).

² Now Gaol Street.

ST. MARTIN’S

Another dependency was the old church of St. Martin’s. Mr. W. Collins in his work on the Hereford churches (*St. Martin’s*, p. 4), writes : “The old church of St. Martin’s across the river stood in Wye Street about fifty yards south of Wye Bridge and behind where the inn called the Duke’s Head now stands”. He traces its history from 1254 to 1645, when it was demolished “because it stood in the way of an attack by the Roundheads on Wye Bridge Gate”. There is, however, a little more to be said. Its site was certainly across the Wye about the year 1220, when “Hugh, chaplain of St. Martin across the Wye”, persuaded the Dean and Chapter of the Cathedral to make a grant to needy churches so that they might obtain bread and wine for the Eucharist (Bannister “Lost Charters”, W.C. *Trans.*, 1914, p. 275). There are, however, charters both in our cartulary and in the cathedral records in which the church is described sometimes as within the castle and sometimes as beneath it, “*in castello Herefordiæ or infra ambitum castelli de Herefordia*”. As the church of St. Guthlac was already inside the castle, the alternative ‘*infra*’ is to be preferred. It may mean either between the castle and the bridge, or possibly across the river where it stood afterwards, for the bridge-head would undoubtedly be strongly held by the castle from the earliest times.

Hugh de Lacy, in a charter dated 1154 or later, calls it “the chapel which my ancestors founded”. It was given to the bishop of Hereford by Count Roger, c. 1144 (see *Charters and Records of the Cathedral*, p. 13), but Henry II must have recalled the gift when Roger joined in a rebellion against him. So Hugh de Lacy, his enemy, received it and gave it to the priory about the year 1154, and the King confirmed his gift (see charter 165 and *Charters and Records*, p. 22). The endowments of St. Martin’s were : “The church of Maneshull (Garnage) with its lands and tithes, two thirds of the tithes of Yazor, Yarkhill, Hinton, Arcleston (Kingstone) and Wormiton (Kilpeck), all the tithes of the garden of Hugh de Lacy across the Wye, including apples, hay, flax and everything else that grew there, together with all the obventions from the castle” (Charter 164). It is very surprising that Hugh declares that he wrote this charter himself “*Hugo de Lacy qui hanc cartam scripsi*”. He was so anxious that St. Martin’s should not be robbed of its property that he wrote to Bishop Robert Foliot to ask him to look after the church for him while he was away on the King’s service in Ireland (Charter 166).

The earliest chaplain mentioned is Walter Colewall (Charter 167) who must have been in charge of the parish just at the time when Hugh de Lacy wrote. He held the living on condition that he paid an annual charge of half a mark to the priory. When he retired, he accepted a pension of eight marks. The other chaplains mentioned are Hugh (see above), and Philip, who witnessed a transfer of land in the parish of St. Nicholas, c. 1230.

ST. NICHOLAS

The church of St. Nicholas, then standing at the corner of Bridge Street and King Street, was apparently not subject to the priory, but for some reason or other there are five charters which refer to it, carrying it back to a date not earlier than 1230. Close to the church there were three pieces of land, one belonging to William the chaplain, another to the rector, who in one place is called Thomas Bloet and in another Thomas Foliot; the third had been sold by Nicholas le Seculer to Radulf de Haye. This last piece is described as looking towards the monastery of St. Nicholas, "*spectantem ad monasterium sancti Nicholai* (Charters 352 and 353). Thomas Elliot, alias Bloet, had bought his land from William de Haye for twenty marks and the present of a gold ring, valued at half a mark, to Denise, William's wife. The witnesses were Philip, chaplain of St. Martin's, and John Foliot. Nicholas le Seculer is known because he inherited a considerable estate in Sutton from his brother, Master Alexander le Seculer, and because his daughter Alice married Walter de Freine. His *inquisitio post mortem* is dated 1274. His name also appears in other charters dealing with land in the city; its occurrence in this one suggests that there may have been some link between the two churches, Sutton St. Nicholas and St. Nicholas of Hereford, which would explain their common dedication.

PLACES AND PEOPLE

The only places in the city mentioned are Bissepsstreet, 1250, Grope Lane, 1210, Widemersh, 1250, and the Jewish Quarter *Judaismus*,¹ wherever that may have been. The district within the walls is called the *vicus* or the *civitas*; the houses outside are the suburb, and Hereford across the Wye, where the King and Hugh de Lacy had gardens, stands in a place by itself. Some idea of the rents paid is found in a charter in which earl Roger endowed the priory with an income of half a mark (Charter 331, perhaps twelfth century). William de Stanedin, Ernaldus the clerk, Ercomber the widow, and Adelm each paid twelve pence and Edene Curose sixpence per annum.

The names are chiefly Norman-French, some more Norman than others, especially, the nobility; Devereux (De Ebroucis) Baskerville, De Port, De Esketot, Mortimer, Pluge, Galand, Chartepole, Chambord. Many are plain English with but little trace of Anglo-Saxon or Welsh. Here is a list of those with titles and occupations:

Roger, comes
Maurice, vicecomes

¹ Speed's map (? 1603) shows Jewry lane between Wydmarch and Bisters Gate. See also Johnson's *Customs of Hereford*, p. 51 (or 70—71 according to edition).

Ranulf Poer, vicecomes
Paganus (Payne Fitz John ?)
Robert Hakit, constable (1219)
Radulf, chancellor of Gloucester
Walter Seward, Prepositus
Gilbert de Widdinton, Prepositus
Paganus the mercer, senior
Paganus, the mercer, junior
Stephanus, Prepositus
Hermone, Thesaurarius
Richard, Scaccarius of London
Wulhat, Apothecary and Prior's Bailiff
Stephanus, Porter of the Priory
William and Lambert, Bakers
Leowynus, Carpenter
Hugo, Cellarer
Ansel, Cook
Walter, Fisherman
Gaufrid, Merchant
Walter, Palmer
Gaufrid, Smith
Henry, Surgeon
Henry, Summoner
Henry, Miller
Henry, Traveller (itinerarius)
Simon, Forester
Inganus, Tailor

Stephen, the porter, was a man of substance. He was not a monk, for he and his wife Agnes had a son Geoffrey. He rented a house and land between the priory gate and the brook that now runs near the railway, and also owned twenty acres of arable land in Lyde in the fee of Radulf de Saucy, together with the right to quarry in the moor there. He gave the quarry to the priory, but everything else to his son, who in his turn may have become porter, and gave a house and the land near it to the priory in the year 1230. (See charters 232, 234, 255 and 263.)

THE CHAPEL OF ST. DUBRIC IN WOOLHOPE

By PREBENDARY S. H. MARTIN, M.A.

Close to a farm at Buckenhill, at the southern end of the parish of Woolhope and near its boundary, a stone piscina has been dug up recently. It is now in the possession of Mr. Bird of How Caple. Over it were the remains of an old building from which cart-loads of unworked stone have been removed. The piscina is in perfect preservation and was made to fit into a wall; its date is not earlier than the fifteenth century. Although no other stones here show signs of having been part of a church building, it is possible that the piscina indicates the site of the old chapel of St. Dubric.

His list (pp. 147-180) on the "Most remarkable and interesting plants indigenous to Worcestershire" also includes plants of the Malvern Hills and thus refers to some Herefordshire plants.

From this time onwards most of those whose names follow were connected with the famous Woolhope Club.

FLAVELL EDMUNDS was a particularly useful member in the early days of the Woolhope Club, for, by virtue of his profession as a journalist and editor of the widely read "Hereford Times", he was able to draw the attention of Herefordshire people to the necessity for a Field Club, in the formation of which he was interested, and to keep his readers well informed of its activities and meetings. Many later writers owe much to the records of many articles published in the newspapers.

A letter in the "Hereford Times", dated 22nd May, 1852, reads:—

"It has long been a subject of regret to the lovers of Natural History and its kindred science of geology that Herefordshire, although so situated as to promise a rich field of investigation, has been left almost unexplored... In one department alone—botany—we may point to the subject of the prizes for wild flowers offered in connection with the Hereford Horticultural Society."

In 1866 an arrangement was made with the proprietor of the "Hereford Times", that the proceedings of the Club should be reported in full as ordinary news and that the type employed for this purpose should be reset in octavo for the "Transactions". The proceedings were thus published widely and circulated and created much interest and encouraged the study of natural history among the public. The first annual volume of the "Transactions" was issued in 1866.

Edmunds was stated to be "a scholar of varied scientific attainments and a good botanist". He delivered one of the first botanical papers to the Club, in 1853, "On the distribution and causes of colour in Plants", and, in 1855, a paper on "An Incident in botanical history", dealing with the formation of the Club. His contribution in 1854 was on "Sudden appearances of plants in localities, and disappearances", dealing with the springing up of various plants on a railway embankment at Hereford, which he contended must have arisen from long buried seeds. Seven plants were enumerated of which three were composites with wind-borne fruits. E. Lees was critical of this choice in his preface to his "Botany of Worcester", 1867.

At the Colwall meeting of the Club in 1867 Edmunds read a paper "On variations of the primulae" and in 1874 contributed a list of plants found on the excursion to Whitchurch.

The REV. WILLIAM S. SYMONDS, (1818-87), was one of the founder members of the Club. Born in Hereford he came of a family from an estate at Elsdon, near Kington. In 1843 he became curate of Offenham near Evesham and, in 1845, was presented with the living of Pendock in Worcestershire where he spent most of his life. His health began to fail about 1877 and, in 1883,

he gave up his living and went to reside with his son-in-law, Sir Joseph Hooker, at The Camp, Sunningdale. Symonds' primary interest was in geology "though gifted and interested in all nature and natural science". He wrote the introductory section on geology of the county for the "Flora of Herefordshire", 1889, and, in view of the close link between the nature of the habitat and the plant associations occurring there, this was an interesting and important contribution to make. Symonds was President of the Woolhope Club in 1854 and President of the Malvern Field Club from its formation in 1854 to 1871.

BURTON MOUNSHER WATKINS (1816-96, b. Liverpool, d. Ross), was educated in Grosvenor Square in London where his inherent love of plants first showed itself. Ill health of his father caused the family to move away from London when B. M. Watkins was about 16 years old. In Monmouth and the adjoining parts of Herefordshire he spent the remaining years of his life. He became Relieving and School-Attendance Officer in the Ross district and botany became his special study, especially that of the interesting Doward Hills.

In 1845 he discovered *Koeleria cristata*—a rare grass, on Little Doward. In 1868 he contributed a paper "A Botanical stroll through the Frome and Bromyard districts of Herefordshire" and, in the following year, wrote "A Botanical stroll in Herefordshire" ("Transactions", 1869).

In this same year with H. Southall he published an account of "Early flowering of wild plants in 1869 compared with the list of 1865". Forty-five plants were named:

For the Forest of Dean excursion, 1871, Watkins and Southall supplied a list of Ross plants observed, these included flowering plants, ferns and fungi. In this year too Watkins reported *Melilotus alba* (medick), from Llangarren.

The year 1872 saw the first bryophyte records by Watkins, the liverwort *Riccia sorocarpa* on the Dowards and in 1873 *Ricciocarpus natans* and *Sporocarpus terrestris* with the mosses *Entosthodon ericetorum* and *Bryum capillare*.

Flowering plant records in this year were *Euphorbia lathyris* and *Galium mollugo* ("Bot. Rec. Club Repts."), and in 1881 *Chaerophyllum sativum*. Further records of flowering plants were *Hutchinsia petraea* (= *Hornungia petraea*) (rock hutchinsia), *Potamogeton obtusifolius*, *Carex fulva* (= *C. rostiana*), *Gentiana amarella* ("Topograph. Botany," 1883).

To botanists the major contribution of B. M. Watkins was that on the Doward Hills. In 1882 he contributed "Florula of the Doward Hills", pointing out that fourteen unique species grow on Doward and nowhere else in the county.

It is this limestone area of the Doward Hills on the Lower Wye with an area of 2,126 acres which takes precedence over the rest of the county in the number of species: 682 species of flowering

plants and 223 mosses were recorded there up to the time of the publication of the "County History", in 1908.

Plants of especial interest include:—

Helleborus viridis (green hellebore), *H. foetidus* (foetid hellebore), *Hornungia petraea* (rock hutchinsia), *Tilia platyphyllos* (large-leaved lime), *Geranium sanguineum* (bloody cranesbill), *Hippocrepis comosa* (horse-shoe vetch), *Pyrus cordata* (wild pear), *Sorbus latifolia*, *S. intermedia* (whitebeam), *Rubia perigrina* (madder), *Antennaria dioica* (mountain everlasting), *Hieracium lasiophyllum*, *H. subplanifolium*, *H. stenolepis*, *H. pachyphyllum* (hawkweeds), *Hypopitys multiflora* (= *Montropa hypopitys*), *Atropa belladonna* (deadly nightshade), *Origanum vulgare* (marjoram), *Ophrys insectifera* (fly orchid), *Cephalanthera damasonium* (white helleborine), *C. longifolia*, *Carex digitata*, *C. humilis*, *C. montana*, (three sedges), *Melica nutans* (drooping melic grass).

EDWIN LEES (1800–87), a printer and stationer in business in High Street, Worcester, was an ardent and astute amateur botanist whose major contribution was to the county of Worcestershire. One sees in his writings interesting endeavours to look beyond the actual appearance and grouping of plants in certain areas for the reasons for their occurrence in those habitats, which is the modern ecological approach to the science.

In 1830 Lees published a catalogue of the "Plants of the Malvern Hills", in "Loudon's Magazine of Natural History", Vol. III. Lees botanical district of Malvern took no regard of county boundaries and his list contains Herefordshire records which are often difficult to separate from the Worcestershire ones.

His "Botany of the Malvern Hills", which ran into three editions (undated, but with prefaces dated 1843, 1852 and 1868), contains Herefordshire, Worcestershire and Gloucestershire records. Few localities are listed in the first edition, more are included in the second and third editions.

The "New Botanists Guide", 1835–37, contains, in the Supplement, a Herefordshire list including plants from a Lees manuscript. H. C. Watson's "Topographical Botany", 1883, credits Lees with *Paris quadrifolia* (herb paris), from this county.

To the Woolhope Club Lees contributed a paper in 1854 on "Botany of Worcester Beacon and Herefordshire plants near the boundary of Worcestershire". Another paper in 1868 entitled "On the formation of fairy rings and the fungi which inhabit them", contains references to *Hydnum repandum* and *Lycoperdon giganteum*. Lees attended some of the famous fungus forays.

In "Pictures of Nature around the Malvern Hills", 1856, there are several references to plants on the Hereford border, lichens on the calcareous rocks at Chances Pitch: *Endocarpon hedwigii*, *Urceolaria calcaria*, *Lecidea rupestris*, *L. immersa*, *L. epipolia*, *Collema sinuatum*, and with the trees wrapped in *Usnea* with *Verrucaria* on their bark. (The occurrence of these lichens

is evidence of the freedom of the air from soot and smoke particles.) Lees referred to a phenomenon of September, 1854, when "a pool in the parish of Mathon was covered with a bright vermilion film, like the one in Charnwood Forest, Leicestershire, in the time of Charles I, and became a 'pool of blood'". This, Lees suggested, was caused by *Protococcus nivalis* or *Hæmatococcus mirabilis*. Lees was approaching the correct solution, for this sudden coloration of pools and lakes is due to a sudden rise to a seasonal maximum of some microscopic alga or algæ (often a blue-green member).

Lees also refers to meeting the Rev. F. Custance, rector of Colwall, and of the relating of the cutting down of a holy-thorn tree at Red Marley farm in the parish of Acton Beauchamp and of the accidents which befell the farmer who had been rash enough to cut down the tree! Another small holy-thorn existed at Cherry Green, Alfrick.

B. C. A. Windle in "The Malvern Country", 1901, refers to this book of Lees and to the disappearance of some of the rarer plants mentioned by him.

In the introduction to "The Botany of Worcestershire", 1867, Lees stated:

"I have noticed within the last thirty years in Worcestershire and Herefordshire woods a great increase in the quantity of wild cherry trees (*Prunus avium*), especially after a fall of the indigenous coppice."

This volume also contains Herefordshire records, e.g. *Centunculus minimus*, at the western base of the hills near Brand Lodge. (This habitat of the gravel and turf near the fault line, might again yield this interesting member of the primulaceæ.) Yet another paper to the Woolhope Club was in 1870 "On the curious algæ only apparent in times of drought". This has references to Colwall and Mathon.

Edwin Lees¹ was admitted as an Honorary Member of the Woolhope Club in 1861 and it was said that, in the field and club-room, many enjoyed "the pleasure of his society and the instruction which he was so well qualified to give". Lees had led one of the early field excursions of the Club to Raggedstone Hill and Ridgeway on the southern extreme Malverns in Herefordshire and, at the meeting, read a paper on "Plants of the Silurian limestone".

HENRY GRAVES BULL (1818–85), was a native of Northampton who came to Hereford in 1841 after qualifying as a physician in Edinburgh and Paris. He resided in St. John's Street and gave twenty-seven years' service to the Infirmary. For over thirty years he was the most energetic and untiring member of the Woolhope Club and his botanical career ranged over almost twenty years. His inborn gifts of versatility and business aptitude were seen in his work, in his contributions to the several sections of natural history,

¹ In 1954 Miss L. Bull gave a set of Lees' works on botany, of poetry, etc., to the Woolhope Club library, most being presentation copies from the author to Dr. H. G. Bull.

in his habit of suggesting suitable problems to younger members of the Club, and by his insistence, encouragement and criticism in getting the problems tackled.

Dr. Bull had a special position and share in the work of the Woolhope Club for not only had he been interested in its formation but also because he was the initiator of the fungus forays to which the Club gave much attention in those early days and led among the Field Clubs of Britain. For a week in each October, over a period of nearly twenty years, Hereford was the rendezvous of the leading British and Continental mycologists and the gatherings were enlivened by the overflowing cheerfulness of Dr. Bull.

The forays started in 1867 and Haywood Forest was one of the first localities visited. This was one of Bull's favourite fungal habitats and, in all eighteen forays which he attended, he reigned supreme.

It has been stated that the commencement of study of the fungi by the Club started in 1867 when Mrs. Key read a paper on "*Agaricus georgii*" and, following remarks by Dr. Bull, there resulted a vote of £6 for three plates of edible fungi.

Dr. Bull's contributions to the Club on fungi include:—

1867—"Illustrations of edible funguses of Herefordshire" with references to *Agaricus procerus*, *Lactarius deliciosus*, *Marasmius oreades*.

1868—Illustrations of *Agaricus gambosus*, *Coprinus comatus*, *Amanita rubescens*.

1869—Illustrations of *Hydnum repandum*, *Fistulina hepatica*, *Agaricus oriella*, *A. prunulus*.

1870—Illustrations of *Boletus edulis*, *Hygrophorus virgineus*, *H. pratensis*, *Lycoperdon giganteus*: with references to thirteen other edible ones.

Dr. Bull's collection of drawings of fungi were, at the time, among the most valuable in the country. Strangely enough he was colour-blind as to green, and coloured all leaves black. This is the commonest form of human colour-blindness.

Apart from his drawings he also contributed articles on fungi and records of finds. In 1869 "Heywood forest and its funguses": in 1872 "The Fungus forays of the Woolhope Club, October, 1872, and a list of the funguses found".

Fungal records included *Agaricus cirrhatus* (1873), *Cortinarius saginus* and *Agaricus jubatus* (1874), *Leptonia euchrous* (= *euchroa*) (1876).

The edible fungi collected at the forays were served at the famous dinners held at the Green Dragon hotel during the week of the foray. In 1869 *Marasmius oreades*, *Agaricus arvensis*, *Fistulina hepatica*, *Hydnum repandum*, *Agaricus procerus* and *A. prunulus* were served.

In 1870 *Fistulina hepatica*—fried and finding its own gravy, *Agaricus deliciosus*—stewed, *A. rubescens*—broiled, *A. procerus*—this was most asked for again!

In 1871 *Morchella esculenta*, *Agaricus gambosus*, *A. campestris*, *A. oreades*, *A. arvensis*, *Lycoperdon giganteum*, *Bovista plumbea*. (Described by James Buckman.)

In 1873 *Fistulina hepatica*, *Hygrophorus pratensis*.

The names of mycologists and other botanists attending these forays make interesting reading, and include M. C. Cooke, Worthington G. Smith, C. P. Plowright, James Renny, Dr. Carlyle, Rev. M. J. Berkeley, H. C. Moore, Spencer Perceval, Bagnall, W. B. Grove, Mr. Broome of Bath, Dr. T. A. Chapman, William Phillips and W. A. Leighton from Shrewsbury, J. D. La Touche, Rev. E. Vize of Forden, Edwin Lees, Canon Du Port, A. S. Bicknell, and Mrs. Bicknell, Rev. J. Stevenson, Griffith Morris, T. Howse, Lord Bateman, Surg.-General and Miss Pearl, Maj.-Gen. Bland, Sir Wm. Guise, Rev. W. S. Symonds, Rev. Wm. Houghton, Mrs. Cooper Key.

All the years of the forays were not vintage years. It was reported of 1880 that "never in the annals of the Club have so few fungi been found or such continuous rainy weather been experienced".

After Dr. Bull's death in 1885 the Hereford fungus foray very rapidly languished and lost its place in the affection of mycologists. By 1891 the fungus foray was limited to an excursion of one day and it was said in 1892 (the last year of the forays) that "the fungus forays were only the ghosts and shadows of the long ago, partly due to the dearth of larger fungi" and that the Club combined with the fungus foray a search for Rubi (brambles), under the direction of the Rev. A. Ley.

In 1893 the Yorkshire fungus foray took the place, in part, of the Hereford foray and G. Massee and C. Crossland wrote of this:—

"The justly celebrated Hereford Foray, which for many years monopolized the first week in October and was the universally acknowledged meeting-place for exchange of opinion and courteous criticism between British and foreign mycologists has, unfortunately, now run its course."

The Yorkshire forays did not succeed in filling the place of the Hereford ones and there was no satisfactory arrangement until the formation of the British Mycological Society in 1896.

Many of the botanists attending the forays had taken up the study of fungi as a hobby in their retirement and the average age of those attending must have been greater than of those attending the meetings of the British Mycological Society at the present time.

Many ghosts must have stirred in 1902 and again in 1926 and 1951 when forays were held in Hereford in conjunction with visits of the British Mycological Society. In 1926 Dr. G. H. Pethybridge gave his Presidential address in Dr. H. G. Bull's old house, by invitation of Miss Bull, and he stood between two rooms to do so. The dinner, given by the Woolhope Club, on the Thursday evening, September 30th, was held in the dining room at the Green Dragon hotel and the woodcut prepared for the 1877 dinner was used again for the menu cards.

Apart from his primary interest in Fungi, Dr. Bull communicated to the "Transactions" of the Club and to the "Journal of Botany", papers and notes on other botanical topics, especially on trees in the county, including:—

1851—Botanical report of the first excursion to Stoke Edith Garden.

1857—Canadian pondweed (*Elodea canadensis*), and *Myriophyllum* in Hereford Canal.

1858—"Mistletoe in Herefordshire"—the centre of the mistletoe district of England. (Also in "Journal of Botany", 1864).

1865—*Xanthium spinosum* on waste ground near Hereford Infirmary.¹

1867—"Capel-y-Fin, its yew trees and church".

1869—"Mistletoe oak and Asarabacca at Deerfold Forest", "List of Mistletoe oaks in Herefordshire," "The Ancient forest of Deerfold," "The Elm tree in Herefordshire," "On *Cuscuta hassiaca*," "On wandering plants" with reference to *Veronica buxhamii* (= *V. persica*).

1870—"The Mistletoe oak of Llangattock Lingoed".

1882—"Herefordshire Pomona".

Dr. Bull was President of the Woolhope Club in 1866, appropriately the year when the first section of the County Flora was presented by the Rev. W. H. Purchase. Bull's major contributions were thus the inauguration of the fungus forays and the publication of the "Herefordshire Pomona". It was said of him that "he led a singularly benevolent and useful life, genial, kindly-hearted, honoured and valued by all". W. G. Smith wrote of him at the time of his death (October 31st, 1885), "He died in the month he loved".

HENRY SOUTHALL, (1826-1916) a draper of Ross, was, like many well-known botanists of Britain, a member of the Society of Friends. One of his special interests was his alpine garden which the Club visited on several occasions. It was said of him that "he stood for all that was upright, honourable and just".

Among his contributions to the Club were:—

1866—"The more rare plants of the Doward district".

1868²—"Early flowering of wild plants," 1869. Written with Burton M. Watkins.

1871—Rare plants of the excursion in 1871.

1875—"On the botany of the neighbourhood of Ross and the lower portion of the Wye Valley". This included the Doward Hills, Symond's Yat and Coldwell Rocks. Trees, shrubs and other flowering plants were noted.

¹ This turned up again in about the same place after a lapse of 86 years.

² The volume for 1868 did not appear until 1869.

1877—The Natural-History of Ross, Symonds Yat, Dripping Well, etc.

1884, 1886, 1889—Plants in the alpine garden.

1884—"Changes in the Natural History of Ross in thirty years". Among the plants then reported as extinct were:—*Pinguicula vulgaris* (butterwort), *Erodium maritimum* (sea stork's bill), *Scirpus lacustris*, *Cynoglossum montanum* (= *C. germanicum*), *Campanula rapunculoides*, *Equisetum hyemale*.

H. Southall¹ was President of the Club in 1889-1891 and again in 1903.

The REV. WILLIAM ALLPORT LEIGHTON (1805-89), was a Salopian who compiled the voluminous "Flora of Shropshire", 1841. Apart from the flowering-plants his special interest was in the lichens and he was the author of some standard works on these lowly plants. For Herefordshire his chief contribution—recorded in his "Lichen Flora", 1879—was of some forty lichens from the county and included several species of *Lecanora* and *Lecidea* and some species of the genera *Calicum*, *Cladonia*, *Usnea* and *Ramalina*.

Also in this "Lichen Flora", are Herefordshire lichen records of the Rev. Thomas Salwey, vicar of Oswestry and friend of Leighton, of the Rev. J. F. Crouch, and of W. Joshua.

MRS. W. ANDERTON SMITH is remembered for the first discovery in Britain of our rarest orchis and what must, perhaps, be considered the rarest of British flowering plants. This is *Epipogium aphyllum* (spurred coral-root or yellow-flowered, leafless orchis), a saprophytic member of the Orchidaceæ, growing among decaying leaves in moist woodlands, brownish in colour with small, brown scale-leaves but no green leaves and a branched coral-like underground stem and with rather large flowers and a spurred lip. In most British orchids the lip is below the flower, a twisting or resupination, bringing it into this anterior position against the bract. In *Epipogium* this resupination does not occur and, compared with other orchids, the flower appears to be upside down. The lip and spur are pale-pink, flecked with magenta rose. The sepals—or outer perianth—are yellowish in colour.

This rare orchis, most capricious of all in its appearance, was found in 1842 at Sapey Brook when Dr. Gregory Smith was Rector of Tedstone Delamere, near Bromyard, in the N.E. of the county. This first find was of a single plant and, unfortunately, it was dug up and removed to the Rectory garden in ignorance of its saprophytic nature, and so it died. Doubtless the removal of this orchid was made with the best motives, but too often plants are uprooted to be transplanted elsewhere, forgetful that many plants exist in a particular locality because they are delicately adapted to the peculiar conditions obtaining in that habitat. Orchids

¹ He acted as meteorologist for the Club for many years.

exist only when in very intimate association with the hyphal threads of specific fungi.

At intervals until 1910 a further four plants were reported from Herefordshire and three times near Ludlow.

Then, in 1924, a plant was reported in one locality in Oxfordshire, two more a year later, two were discovered in another Oxford locality in 1931, and, in 1953, R. A. Graham found twenty-one spikes in "a dark wood in Southern England". (Photographs in "Illustrated London News", August 1st, 1953, and a report on this rare plant on the B.B.C. 7 p.m. news bulletin on 19th October, 1953.) G. Clarence Druce had the distinction of discovering the plant twice.

WILLIAM HENRY PURCHAS (1823-1904), must be accorded a very prominent place with Bull, Watkins, Ley and Binstead among the handful of botanists whose contributions are major ones in the history of botany in the county. He was born at Ross where his father was a wine merchant. For a time W. H. Purchas followed in the business but his real interests were in Church work and he was an originator and teacher in a Sunday School at Ross. In 1853 he went to Durham University College, was ordained in 1857 and served at Tickenhall (1857-65), Lydney, Gloucester (1866-70), and Alstonfield in Staffordshire (1870-1903). At first his interests in natural history were in entomology and his taste for botany grew with the years. He was one of the founder members of the Woolhope Naturalists Field Club and his reflections on how the Club came into being and of his part in it are worth recording.

Purchas described to Thomas Blashill (about 1852) :—

"I had more and more seen as I continued to give attention to British Botany that Herefordshire was almost an untrodden field and my constant correspondence with the late Hewett C. Watson, the father of British Geographical Botany, made me see this the more strongly and, when reports of the Tyneside Naturalists' Field Club reached me, I saw that if we could have a similar Club for Herefordshire, the study of the natural history of the county might be greatly advanced. I had made Dr. Bull's acquaintance and I mentioned to him how desirable the idea of a Field Club seemed to me. He proposed as a means of bringing forward the idea that I should give a lecture on the 'British Ferns' at a Soiree of the Hereford Literary and Philosophical and Antiquarian Institution, that I should then ventilate the idea of a Field Club. This lecture was delivered on Friday, March 26th, 1852. At the close Bull said 'I have just been talking to a gentleman here (Mr. Scobie) who is much disconcerted at your proposal about a Field Club for he has been anxious to establish a Geological Club'. . . . Matters were talked over. The result was that, at a meeting held either at Dr. Bull's or at Mr. Scobie's, the Club was formed."

Purchas wrote "On the Botany of the neighbourhood of Ross" to "Phytologist", O.S., Vol. II, 11th September, 1846. He pointed out that, in an area extending six miles on each side of the town of Ross, the face of the county is considerably diversified. The general dependence of the flora upon the geological formations receives striking illustration at Coldwell where the Mountain Limestone appears for a short distance separated only by the river from the Old Red Sandstone (the general formation of the county).

On the Limestone occur *Hieracium montanum*, *Origanum vulgare*, *Ophrys insectifera*, *O. apifera*, *Helianthemum nummularium*, *Sorbus aria*, *Lactuca muralis*, and the fern *Gymnocarpium dryopteris*. Ninety-seven plants are named in the list.

To this "Phytologist", Purchas also contributed other papers relating to Herefordshire :—

"Monstrosity of Flowers of Common Sweet William found at Ross."

"Occurrence of *Polypodium calcareum* at Coldwell Rocks."

"Occurrence of *Carex montana* near Ross."

In 1856 a move was on foot to compile a "Flora of Herefordshire", under Purchas who undertook to organise this work with the help of other members. He himself undertook to explore districts 1 and 2 (Newport to Mordiford), No. 5 (Bromyard) and No. 7 (Hereford). His task was a heavy one, and in 1860, in view of his removal from the county, a Committee was appointed to assist him. (One feels a regret that Purchas had not been presented with a living within the confines of his native county, in order to allow him to devote some of his spare time to his botanical interests of the county.)

In 1866 he published his list of 868 indigenous wild plants of the county and it was a list carefully compiled and contained very few inaccuracies. It is obviously too long to include here.

It was said of Purchas that "all his botanical work was painstaking and thorough" and later students have appreciated the worth of such reliable data. He was well in touch with most of the leading English botanists of his day. He developed friendships with Bloxam, Coleman, Newbould, and Babington—all students of the brambles—a very difficult genus of plants—and Purchas thus became interested in the genus *Rubus* living in a district rich in bramble forms, in roses and hawkweeds. His name is perpetuated as the joint author with the Rev. A. Ley of the admirably compiled "Flora of Herefordshire", 1889, and a bramble (*Rubus purchasianus*), was named after him. One of his special finds was *Origanum megastachyum* (a marjoram), at Kinsham and at other places in the west of Gloucestershire.

James Britten, for some years editor of the "Journal of Botany", wrote in that journal on "The Local Field Clubs of Great Britain". The report on the Woolhope Naturalists Field Club appears in 1871 (pp. 367-9).

Henry Trimen ("Journal of Botany", 1873) listed, for each county, the chief botanical works for each of the English and Welsh counties up to that time. For Herefordshire his references are: W. H. Purchas in "Trans. Woolhope Club", 1867, "Gough", II, p. 463, "Bot. Guide", 325, "New Botanists Guide", pp. 214, 627, Duncumb "History of Herefordshire", 1804, Vol. I (180-186). Ross: Purchas in "Phytologist", II, p. 649, Hereford Fungi:

"Trans. Woolhope Club"; "Floras" of "Malvern and Worcester-shire".

The REV. PREB. J. F. CROUCH (*d.* 1888) Rector of Pembridge, was described by Preb. Elliot as "a man of very considerable scientific attainments, stimulated by an ardent love of nature". He served the Club from the earliest days of its existence and was perhaps the earliest bryologist in the county for he made a collection of 141 species of mosses, chiefly from the N.W. district. This list has been embodied in several later papers by other writers on the Musci. Three times, in 1855, 1859 and 1864 Crouch occupied the Presidential chair of the Club.

To the Annual Meeting of the Club in 1856 Crouch described the scope of the proposed new Flora and he arranged to collect plants from District 12 (Leominster to Brilley). To the 1857 meeting Crouch gave an account of the plants of Pembridge. In 1860 he was appointed to the Committee for publication of the Flora and, later, Ley named him for the ardent help he had rendered.

In 1878 he described mosses from hill-tops, glens, moorland and submontane, wooded slopes, woods, lane and hedge, wall-tops, tree-boles, mud, riversides, in rivers and streams and on limestone. The information supplied by Crouch was used by Ley in his 1878 paper.

Leighton's "Lichen Flora", 1879, records some lichen records by Crouch, e.g. *Leptogium fragrans*, *Calicium quercinum*, *Parmelia olivaceae*, *Lecidea caradocensis*, *L. alboatra*, *Graphis elegans*.

The REV. THOMAS WOODHOUSE was one of the early workers of the Woolhope Club. In 1866 he contributed a paper on "Herefordshire Yew trees", ("Trans.," pp. 243-253) in which thirty trees are described. This was the first of an interesting and valuable series of papers on trees of the county. In 1870 he wrote on "The Beech tree in Herefordshire" (pp. 142-148), and "Notes on the Natural History of Aymestrey" (pp. 25-30) and lists 464 species of flowering plants and 22 ferns and mentions the trees, the paradise of ferns with oak and beech ferns, together with *Blechnum boreale*, *B. spicant*, *Lycopodium clavatum* (club moss), *Galeopsis speciosa*, *Lithospermum officinale* (gromwell), *Dipsacus pilosus* (teazle), *Adoxa moschatellina* (moschatel), *Malva moschata* (musk mallow), *Vicia sylvatica* (wood vetch), *Allium ursinum*, *Polygonum bistorta*, *Lysimachia nemorum*, *L. nummularia*, *Hypericum humifusum*.

Among many ardent amateur botanists the most distinguished and the one who has contributed most to our knowledge of the flora of the county was a native of it. The REV. AUGUSTIN LEY (1841-1911) came of a Devonshire family but was born in Hereford where his father, the Rev. W. H. Ley, was at one time Headmaster of the Cathedral School and, later, vicar of Sellack. Augustin Ley received his later education at Christ Church, Oxford, was ordained in 1867 and held curacies at Buxton, then at Sellack and became vicar of St. Weonard's and later vicar of the combined

parishes of Sellack with King's Capel. His duties as a parish priest ever took first place in his thoughts but his second great interest was botany. He was a keen, careful observer and became an authority on *Rubus* (brambles), *Sorbus* (whitebeam), on Welsh hawkweeds, elms, and also took a special interest in the mosses and the plants of the Limestone districts.

Being a recognised systematist, his specimens were not only collected with care but were also checked, where necessary, by the Referees of the Botanical Exchange Club and so have come to be accepted as authentic and official records. Ley's herbarium went to Birmingham University.

Ley made valuable contributions to our knowledge of the floras of many counties, especially of Mid-Wales, but his major botanical contributions were, appropriately, to his native county. In chronological order these were:—

1878—A paper on "The Mosses of Herefordshire", using information supplied by Crouch.

1881—This year saw several major contributions from Ley. "Notes on some less known Herefordshire plants" ("Trans.," pp. 10-21). In this he mentioned the Malvern Hills, which present a peculiar flora, different from the rest of the county with *Epipogium aphyllum*, *Meconopsis cambrica* (Welsh poppy), *Orchis incarnata* (= *O. latifolia*), *O. albida* (= *Leucorhis albida*), *Geranium sylvaticum*, *Salix repens*. Grasses: *Anthoxanthum puelii*, *Alopecurus fulvus* (= *A. aequalis*), *Gastridium lendigerum* (= *G. ventricosum*)—a grass rare inland. Ferns: *Hymenophyllum tunbridgense*, *Lastraea foenicicii* (= *Dryopteris aemula*). Local plants: *Myosurus minimus* (mouse-tail), *Sagina ciliata*, *S. subulata*, *Cerastium semidecandrum*, *C. tetrandrum*, *Trifolium filiformis* (slender clover), *Ornithopus perpusillus* (bird's-foot).

"The Carices of Herefordshire" ("Trans.," pp. 89-95), noting thirty-four species out of sixty-five recorded for the whole of the United Kingdom.

"The Pondweeds of Herefordshire" ("Trans.," 1882, pp. 230-232), showing that fifteen or sixteen of the thirty British Potamogetons were recorded for the county.

"The Roses of Herefordshire" ("Trans.," 1882, pp. 154-163). This was Ley's Presidential address to the Club.

1883—Plants near Ledbury (on excursion). "More rare plants"—Oldbury, Caplar.

1884—Little Doward—Excursion plants.

1885—Plants of Lugg Meadows.

1886—"Recent additions to the Herefordshire Moss Flora" (a paper read at Leominster, eighteen new species were added.)

"Notes on some Cliff plants of Wales" ("Trans.," pp. 73-86). This includes mention of Black Mountain plants.

1887—"Notes on the Botany of the Mitcheldean District" ("Trans.," p. 90).

1883—"Plants from excursions at Ledbury and Wall Hills, Raggedstone Hill, Eastnor, Midsummer Hill".

"On the more rare plants of the district"—Caplar Camp.

Saxifraga granulata, *Galanthus nivalis*, *Vicia sylvatica*, *Asperula odorata*, *Daphne laureola*, *Paris quadrifolia*, *Neottia nidus-avis*, *Luzula sylvatica*, *L. forsteri*—characteristic Herefordshire plant, *Melica uniflora*, *Blackstonia perfoliata*, *Viburnum lantana*, *Tilia platyphyllos*, *Carex digitata*, *Carum carvi*, *Narcissus infundibulum*, *Orchis palustris* (= *Epipactis palustris*). And the Mosses *Trichostomum crepulum*, *Barbula recurvifolia*.

In 1884 Ley announced that he was prepared to assist in editing the "Flora of Herefordshire" which appeared five years later.

This monumental work was, appropriately, a composite work for many botanists had co-operated to make it as complete and as accurate as possible. These helpers included C. C. Babington, J. G. Baker, A. Bennett, Boswell, A. Briggs, Dr. Cooke, Leefe, W. W. Newbould, Worthington Smith, and H. C. Watson.

The Introductory section on climate was written by Henry Southall, that on geology by the Rev. W. S. Symonds and the section on the earlier contributors to our record of the flora by the editors. Over 900 flowering plants and Pteridophytes are listed, 283 mosses and 1,097 fungi which was a faithful and, at that time, a fairly full catalogue of the known county vegetation. This indicates careful, intelligent and prolonged study of the plants and their habitats.

The abundance of calcicolous plants, the rarity or absence of many bog or moorland plants in all but one or two districts were noted and strange absentees listed. These were *Avena pratensis* (= *Helictotrichon pratense*) (field oat), and *Polygala calcarea* (a rare milkwort of the chalk hills). (To these one might add *Samolus valerandi* (brookweed), which is also rare in neighbouring Shropshire.)

1890—"Florula of the Doward Hills—Mosses", noting that 191 species out of 568 in Britain were reported. Of these, twenty-five species showed a marked preference for lime, sandstone and conglomerate, six species for river mud, fifteen immersed in water, fourteen were montane, fourteen to Doward Hills and eleven rare in the county.

1892—The Club combined with the fungus foray a search for rubi (brambles), under the direction of Ley, adding ninety species or forms already recorded.

1894—Ley recorded two new British rubi and three new bramble forms from the county.

1895—Plants at Warren Wakley Camp.

1897—Botanical notes on Field Club visit to Olchon Valley and the Black Mountains.

1901—Two more new rubi forms.

1903—Four mosses, Wyre Forest, Cleobury Mortimer plants, including the rare *Rubus fusco-ater*, *R. serpens*, *R. fissus*, *R. plicatus*, near Cleobury Station.

1903—Notes on plants additional to Florula of the Doward Hills.

1908—Plants of the excursion to Black Mountains and heads of the Honddu Valley.

This volume contains a portrait and appreciation of Ley.

In 1908 the "Victoria County History", Vol. I, containing natural history, was published. Ley wrote the main botanical section and pointed out that the flora is limited by:—

- (a) The complete absence of sea-coast and tidal estuary.
- (b) The very small and diminishing area of bog and marshland.
- (c) The comparatively small area of open common heath land. All of these are features which limit the number of species.

These are counteracted, to a certain extent, by certain conditions which tend to enrich it, e.g.:—

- (a) The large area of woodland, part of the primitive forest of Britain.
- (b) The influence of the Welsh borderland and its montane species.

The heirloom of aboriginal woodland accounts largely for the rich development of fruticose brambles: eighty-five species and forty-three sub-species and varieties—up to 1905—make it the richest county in Britain in brambles.

The total number of recorded native plants for the county were: Flowering plants and ferns—about 990, Musci 326 and Fungi 1,439. Whilst the county is not rich in its recorded fern flora with twenty-eight species and sub-species and nine varieties, its moss flora is rich, with 324 out of 632 species and sub-species recorded for the British Isles.

The rare and interesting plants of the county were also listed. Many of these had been mentioned previously by Ley. Others are: *Ranunculus fluitans*—in the Wye shallows below Hereford, *Aconitum napellus*—first detected as native to Britain at Little Hereford, *Pyrus cordata*—in woods at Ross, the Dowards, etc. *Carex strigosa*—in woods, and *Gagea lutea* (yellow star of Bethlehem), in two widely separated localities, at Ross and at the western base of the Malverns.

Other Ley plant records are included in "Topographical Botany", seven in the second supplement to "Top. Botany" (1929–30), to the "Botanical Record Club Report" (1879–80) and "Journal of Botany" (1900–1937).

WILLIAM PHILLIPS (1822–1905), b. Presteigne in Radnorshire, removed to Shrewsbury at an early age. He became a close friend and neighbour of Leighton. His first scientific interest was astronomy then he switched to botany, firstly to the flowering plants,

then the lichens and finally the fungi upon which group he became an authority. He was the author of "Manual of British Discomycetes", 1887, which includes some thirty-one personal records from Herefordshire. Other records of Discomycetes in this county appear from C. B. Plowright, Dr. M. C. Cooke, the Rev. M. J. Berkeley, C. E. Broome, Spencer Perceval, James Renny and Dr. Chapman.

CARLETON REA (1861–1947, b. Worcester), a barrister and naturalist, was active in mycology in his leisure and retirement. His major contributions were to the British Mycological Society and to the Worcestershire Naturalists Club of which he was President on several occasions and the editor of its "Transactions" for fifty years. He wrote the section on fungi for the "Victoria County History", 1908, and reported a total of 1,439 species.

The Rev. T. HUTCHINSON (1846–1916), Vicar of Kimbolton, listed twenty-eight of the rarer plants of the Leominster district after the excursion of July, 1854, and won the gold pencil-case for the best herbarium of 350 Herefordshire wild plants. In 1857 he recorded *Botrychium lunaria* (moonwort), *Polygonatum multiflorum* (Solomon's seal), and *Pyrola rotundifolia* (winter-green); in 1860, *Koeleria cristata* on Bircher Common; in 1884, "Plants at Grantsfield". The "Flora of Herefordshire" cites him as the first discoverer in the county of *Hypericum elodes* and *Rosa spinosissima*. In 1902 he wrote on "The wholesale destruction of the ferns at Symond's Yat".

SPENCER HENRY BICKHAM (1841–1933), was a keen, amateur botanist who had been a student at Owen's College, Manchester, where he was a pupil of Leo Grindon, the Manchester botanist-naturalist who doubtless stimulated the botanical urge in young Bickham. In his younger days Bickham had been fortunate enough to travel abroad extensively and had accumulated a considerable herbarium before he went to live at Ledbury in 1891. It was stated that this herbarium contained a specimen of every British flowering plant, most of which he had collected himself. He was also interested in astronomy and archaeology. He contributed records of some interesting finds to the "Journal of Botany", "Topographical Botany" second supplement, 1929–30, and to "Additions to the Hereford Flora". These included *Rosa tomentosa*, var *pseudomollis*, *R. canina* var *arvatica*, *Viola tricolor*, *Euphrasia nemorosa*, *Sorbus intermedia*, *Salvia pratensis*.

The Rev. J. SHAW is mentioned in H. C. Watson's "Topographical Botany", 1883, as a correspondent of Watson who supplied him with many plant records for both Herefordshire and Shropshire, yet, very surprisingly, mention of him and his records is omitted from the "Flora of Herefordshire", 1889. This may have been due to an oversight yet this is hardly likely in view of the carefulness of most of Ley's work. Some fifty-two records appear in "Top. Botany", of which some of the more interesting are: *Helianthemum*

nummularium, *Dianthus armeria*, *Genista tinctoria*, *Vicia sylvatica*, *Lathyrus sylvestris*, *Astragalus glycyphyllos*, *Circaea lutetiana*, *Myriophyllum spicatum*, *Saxifraga tridactylites*, *Oenanthe crocata*, *O. aquaticum*, *Silene silaus*, *Sambucus ebulus*, *Dipsacus pilosus*, *Picris hieracioides*, *Cirsium acaule*, *Carlina vulgaris*, *Inula conyzia*, *Campanula patula*, *C. trachelium*, *Blackstonia perfoliata*, *Calamintha ascendens*, *Galeopsis ladanum*, *Nepeta cataria*, *Lithospermum officinale*, *Symphytum officinale*, *Plantago media*, *Daphne laureola*, *Euphorbia amygdaloides*, *Anacamptis pyramidalis*, *Allium vineale*, *Colchicum autumnale*, *Zannichellia palustris*, *Carex pseudo-cyperus*, *Poa compressa*, *Thelypteris phegopteris*.

A. T. WILMOTT, a surgeon of Ross, explored the interesting southern parts of the county in the period from 1845 onwards and gave much help in the compiling of the county "Flora". Twenty-three records are included under his name in "Topographical Botany", 1883, and the "Flora of Herefordshire" credits him with several 'First records' for the county:—

Ranunculus hirsuti (= *R. sardous*), *Helleborus viridis*, *Raphanus raphanistrum*, *Sisymbrium sophia* (= *Descurainia sophia*), *Drosera rotundifolia*, *Erodium cicutarium*, *E. moschatum*, *Rhamnus cathartica*, *Astragalus glycyphyllos*, *Spiraea filipendula* (= *Filipendula hexapetala*), *Carduus pratensis* (= *Cirsium dissectum*), *Lactuca virosa*, *Carex humilis*, *Calamagrostis epigejos*, *Avena strigosa* and the Horsetail *Equisetum hyemale*.

H. CECIL MOORE (1836–1908), was born in India and educated at Leamington. He joined the army and served as a Lieutenant in the Royal Engineers in India before becoming Medical Officer of Health for Rural Hereford. The Woolhope Club owes a debt to him for he was the driving force of the Club after the death of Dr. Bull. A tablet in Hereford Cathedral describes him as "Upright, unselfish, humble-minded, conscientious in the discharge of every duty undertaken by him, he worthily followed in the footsteps of a distinguished ancestor, Sir Thomas Moore".

Apart from contributions to the "Flora of Herefordshire", Moore recorded some fungi: *Lactarius uvidus*, *Merulius tremulens* and *Marasmius hudsoni*, a list of thirteen ferns from the Mary Knowl Valley in 1901, a white foxglove with cup or bell-shaped terminal flower in 1902. (This is the peloric flower not infrequent in *Digitalis*.)

Among his contributions on trees of the county were:—

"A note on Battlefield oak on the boundary of four parishes—Kingsland, Lucton, Aymestrey and Shobdon", 1896.

"Further large trees in Herefordshire not previously recorded in the 'Transactions', in which he mentioned oaks, elms at Leominster and King's Acre and chestnut trees in Croft Park.

"Specimens of white-leaved oak at Whiteoak farm, Craswall". (This was doubtless a chimaeric oak.)

H. C. Moore was President of the Club in 1896 and Joint-President in 1908.

Two persons who contributed to our knowledge of the bryophytes of the county deserve special mention. These are the Rev. C. H. Binstead and Miss E. Armitage.

CHARLES HERBERT BINSTAD (1863-1941), went to Herefordshire in 1890 as curate of Eardisley and held livings later at Breinton, Whitbourne and Mordiford. Retiring in 1923 he resided for a time in Reading but returned later to Hereford. Mr. F. C. Morgan described him as "a man of charming personality, an amateur artist of some ability and of generous disposition—beloved by all with whom he came into contact" ("Transactions", 1941). Binstead's special contribution to Hereford botany were his valuable lists and herbarium of the mosses of the county. In 1897 he listed "Some interesting Mosses from the neighbourhood of Kington"—including *Tortula cuneifolia* and *T. canescens*, *Barbula acuta*, *Bartramia stricta*.

His contribution to the "Flora of Herefordshire", 1889, was a list of the mosses of Eardisley and to "Additions to the Flora of Herefordshire", 1894, he added twenty-two species, and the section on the Musci in the "Victoria County History", 1908, was written by Binstead.

"The Mosses of the Caplar district" ("Trans.", 1918) was an interesting paper. He stated that within five miles of Caplar Camp he had observed 209 mosses and in the parish of Fownhope 175 species. The more interesting ones are *Fontinalis seriata*, *Barbula nicholsonii*, *Trichostomium crispulum* var *veridulum*, *Mnium riparium* and *Pottia caespitosa*.

Binstead collaborated with Miss Armitage in a paper on "Herefordshire Sphagna" in 1923 and in 1930 provided a list of mosses at Titley and Wapley Hill, naming fifty-five species together with *Lycopodium clavatum*—rare in the county, and the fern *Thelypteris oreopteris* (mountain fern). He collected his studies on the Bryophyta of the county in his paper "Mosses of Herefordshire" ("Trans.", 1938), 1938) which would have been more appropriately named "Bryophytes of Herefordshire" since he also listed ninety-one Hepatics. He pointed out that of the 625 moss species recorded for Britain, 330 have been listed for the county. The two special moss treasures from the county are *Fontinalis seriata*—only at Winforton, growing submerged on rocks near the Wye bank and *Cinclidotus riparius*—only in the Teme at Temeside, Whitbourne (and at Ludlow).

Local geology influences the moss flora as it does that of other plants. Carboniferous limestone yields the richest and Silurian formations the next richest. The Wye Gorge and Great Doward, Huntsham Hill and Wood rank high among British localities for mosses yielding such treasures as *Bryum obconicum*,

Brachythecium albicans, *Seligeria pusilla*, *Grimmia apocarpa*, *Tortula intermedia*, *Weisia calcarea* and *Encalypta vulgaris*.

The next most interesting areas are the Woolhope districts, Tarrington to Fownhope including Adam's Rocks, Dormington Slip, Mordiford and Checkley. Other mossy districts in the county are the subalpine country around Kington, Eardisley and Presteigne and the Black Mountains, Olchon Valley and Cusop Dingle.

C. H. Binstead's moss collection, made from 1890-1934 is, appropriately, housed in the Woolhope room and forms a valuable asset among the Club's possessions.

MISS ELEONORA ARMITAGE of Bridstow, Ross, has contributed both bryophytic and flowering plant records from the county. To the Woolhope Club "Transactions": in 1890, *Hypnum cuspidatum*, 1918—*Juncus compressus* at Bridstow, 1923, a valuable paper on "The Hepatics of Herefordshire", with references to earlier records by Ley, Binstead, Watkins, Knight, Crouch, Prevost, Ingham, H. N. Dixon, and the Misses Banks.

1924—Mistletoe on pear at Dadnor.

1928—Plants in "Botanical Notes".

1933—"Early Herefordshire Hepatic records".

1945—"Notes on Plants mentioned in Duncumb's 'History of Hereford'", extracted by E. Armitage from names supplied by H. H. Knight" (a bryologist then living in retirement at Cheltenham).

To the "Journal of Botany", in 1913, *Melampyrum pratense* var *hians* from Downton Gorge and *Tilia platyphyllos* from the south of the county.

1916—*Nepeta glechoma* var *parviflora* at Marcle Hill.

1917—"On variation of *Asarum europaeum* (Asarabacca), in cultivation from its original habitat in Deerfold Forest".

1918—*Nitella opaca* and *Riccia fluitans*.

1923—The joint paper with Binstead on Sphagna (Bog mosses).

1924—"The Hepatics in Duncumb's 'History'", and the "Harpidioid Hyphna of Herefordshire".

1925—Report on the interesting bryophytes found in Wye Gorge and Great Doward during the meeting of the British Bryological Society, August 14th-21st, at Ross.

1929—*Geranium endressii* var *armitageae* at her home, Dadnor, "Topographical Botany", second supplement.

1929-30—Records *Medicago maculata* (= *M. arabica*, *M. denticulata* and *Pyrus briggsii*—*f. communis*).

Messrs. AMPHLETT and LEA in their "Botany of Worcestershire", 1909, include parts of Herefordshire—the portion of Mathon as well as the portion of the parish of Cradley which were formerly in Worcestershire.

RICHARD F. TOWNDROW in his papers, e.g. "The Carices of Malvern", includes as his area that of the Malvern Geographical Society's map which, extending to about 135 square miles, includes

portions of Worcestershire, Herefordshire and Gloucestershire, as does F. M. Day's "Additional notes—Unbelliferous plants of the Malvern region".

The REV. W. OSWALD WAIT (1852–1936) graduated at Worcester College, Oxford, in 1875 and came to Herefordshire in 1908 as vicar of Titley, which living he held until his death. He joined the Club in 1908 and made a special study of the plants of his district. From 1917 he was Botanical Editor, to be succeeded in 1949 by Mr. Edward Ball and, later, from 1950 by Major A. E. W. Salt, and from 1954 by Mr. F. M. Kendrick.

Wait's contributions to the "Transactions", included the recording of twenty-five plants from District 11 (Kington), 1918, contributions to "Recent additions to the Moss flora" and on June 3rd, 1919, a paper on "The Botanical work of the Woolhope Club" (pp. 139–142). In this short but interesting paper Wait referred, in summary form, to the contributions of Flavell Edmunds, the Rev. John Duncumb, Purchas, Ley and Crouch and mentions that many records were lost among the papers of the late Rev. Hyett Warner.¹

In 1932 "A list of plants in flower in the mild December of 1931". Forty-four plants are listed.

H. RIDER HAGGARD in "Rural England", wrote:—

"The eye of the traveller in Herefordshire in late April or early May falls upon one of the most lovely sights that rural England can afford. The apple orchards are not out indeed, but on every side of him stretch the rich green pastures starr'd or rather sheeted with wild daffodils that are in places spread upon the meadows like a veritable cloth of gold, while the woodlands are white with the frail anemone."

A. G. BRADLEY in "The Romance of Wales", 1929, was also impressed²:—

"Nowhere have I seen such a riot of foxgloves as blaze on either hand on the steep banks of these warm Herefordshire lanes . . . Another charm of this Borderland is the wild woodland which clothes not the lower slopes merely as in most counties, but the summits of the lesser ranges of 600–800 feet elevation which runs this way and that throughout the county."

Herefordshire is a county with many remarkably fine trees and, as one might expect, many interesting papers about them have appeared in the Woolhope Club "Transactions". Among these contributors were:—

The Rev. T. Woodhouse on "Herefordshire Yew Trees", 1866. Thirty trees are mentioned. He wrote on "The Beech tree in Herefordshire", in 1870, also papers under the pen-name of "Commissioner from the Woolhope Club", written in 1867, on "Trees of Harewood and Pengethley", and, in 1870 "Incidental notes on remarkable trees in Herefordshire".

¹ The Centenary Volume of the Woolhope Club, 1954, contains an appreciative account of the early botanists of the Club by F. C. Morgan in his chapter on "The History of the Club" and an account of "The Botany of Herefordshire" at pp. 48–59 by F. M. Kendrick.

² A. G. Bradley refers to the Natural History of the County in Herefordshire, Cambridge County Geographies, 1913.

The Rev. H. Cooper Key in 1867 wrote on "British Oaks", and Dr. Bull wrote on "The Elm tree in Herefordshire", in 1868, "Mistletoe Oak in Deerfold Forest", and the "Ancient forest of Deerfold".

The Rev. H. W. Philpot in 1877 wrote on "The Cedar tree", with references to cedars at King's Acre, Whitfield, Moccas and Bredwardine. George Piper wrote on the "Gospel Yew at Castle Froome and Canon Froome", 1896. Dr. H. E. Durham wrote on "Perry Pear trees and Perry", in 1922, on "Twisted trunks", 1928, and "On Mistletoe", 1935.

Major Stewart Robinson described "The Forests and Woodland areas of Herefordshire", in 1923.

Francis R. James wrote on "Wellingtonia trees in Herefordshire", in 1931, and Vaughan Cornish in "The Churchyard Yew and Immortality", 1946, referred to many of the fine yews. The giant yew with a girth of 31 feet in the churchyard of St. Peter's, Peterchurch, is one of the best. Others are at Abbeydore, Breinton, Cradley, Cusop, Burghill, Hentland, Little Hereford, Much Marcle, Stanford Bishop, Turnastone and Vowchurch.

Brampton Bryan lies to the north-west of the county. Luxuriant yew hedges and yew trees are peculiarly characteristic of this region, the great yew hedge around the Hall is a thing worth seeing.

Reference should perhaps be made to botanists born in the county whose contributions were made elsewhere.

HENRY MARSHALL WARD (1854–1906, b. Hereford), was probably stimulated to botanical studies by attending a summer class for teachers at South Kensington run by Thistleton Dyer and Vines. He gained a scholarship at Christ's College, Cambridge, in 1876 to begin his career as a botanist. He later travelled to work in the laboratories of Sachs and De Bary since, in those days the systematic study of the flowering plants and the collecting of them was the staple of University teaching in botany and Great Britain was far behind the Continent in laboratory work.

It was De Bary who probably spurred Ward on to work on the fungi. He then spent two years investigating a Ceylon coffee disease. After a short period as Assistant at Owen's College, Manchester, he spent ten years (1885–95), as Professor at the Indian Forestry School at Cooper's Hill, and then filled the chair of Botany at Cambridge for the rest of his active life. Thus he was identified closely with the awakening (or re-awakening) of anatomical and physiological studies and the establishment of the famous Botany School at the University.

Ward was a keen observer—always of the living organism where possible, and wrote books on Trees, and Diseases of Timber, as well as numerous papers on Fungi, Bacteria and Root-tubercles.

RICHARD HENRY YAPP (1871–1929, b. Orleton), a village near the Salop border, was educated at Leominster and Hereford.

Having lost his father when he was quite young he went into business in Leominster. Later he attended lectures at Nottingham and St. John's College, Cambridge. Having graduated with first-class Honours he was awarded a Scholarship at Gonville and Caius and was later appointed botanist to the University Scientific Expedition to the Malay States, and made the fullest use of the opportunity. On his return he became especially interested in the flora of the Fens and when, in 1904, he was appointed to the chair of botany at Aberystwyth he studied the interesting flora of the Dovey marshes at Ynyslas writing classical papers on the area. In 1914 he crossed to occupy the chair of botany at Belfast and later held that at Birmingham.

F. E. Weiss described Yapp as a "gentle and courteous friend, keen to discuss botanical problems and ever ready with valuable advice and help. Yapp's style was clear and terse which made his publications a pleasure to read. He was a true lover of nature, seeing it not only with the eye of a naturalist, but also with the insight of a poet and an artist". Those of us who knew Yapp would agree with this assessment of his personality.

CANON BULLOCK WEBSTER (1858-1934), was educated at Hereford Cathedral School and at St. John's College, Cambridge. He is remembered for his work on Charophytes, that interesting group of Stoneworts which is now classified with the Algæ. It was said of him that "Botany was his relaxation, that he was a delightful companion with a pleasing, courteous manner and a quiet voice".

The REV. DR. THOMAS SIMCOX LEA (1857-1939), the eldest son of the Rev. F. S. Lea of Tedstone Delamere was educated at Haileybury and Hertford College, Oxford, where he was champion swimmer in 1881. He was ordained in 1881 and went, for health reasons, to Australia where he collected plants as he did also in Hawaii and Brazil. Later he was Vicar of Widnes from 1887 and retired to live at Exmouth.

Herefordshire has been fortunate in that it has been served by one Field Club only, with broad outlook and single purpose as its aim, for so many years. The Woolhope Club has been fortunate in that, especially in its early years, the county has housed—either as natives or as temporary residents—several eminent amateur botanists who have contributed to our knowledge of its plants. Moreover, it has been fortunate in its happy relationship with the local Press.

Naturalists must be grateful that the county has retained its rural character. No manufacturing area with its smoke and upheaval disturbs its vegetation and no known mineral wealth threatens to scar it and no crowded holiday resort draws crowds of thoughtless visitors to mar its beauty. Yet there are other means by which the localities of rare plant associations may be destroyed. The activities of the forester, quarryman and builder may remove, for all time, valuable plant communities.

There must, therefore, be considerable support for the hope expressed by Major A. E. W. Salt that certain localities should be preserved. He mentions in particular Deerfold Forest, the river meadows, the Black Mountain Valleys, the Woolhope Dome, Little Doward and Moccas Park. Moreover he asks for encouragement of the newly-formed Herefordshire Botanical Society, now affiliated to the Woolhope Club, which, since its initiation, has concerned itself with recording rare plants, finding at least one observer for each of the eighteen botanical districts of the county, observing orchid hybridisation, the general distribution of the mistletoe and the spread of alien migrants throughout the county. It has undertaken to revise, rewrite on modern lines and reissue a new "Flora of Herefordshire".

In paying tribute to contributors of the past one realises that not half has yet been told of the botanical story of the less-known parts of this delectable county. There are abundant scope and unlimited problems for the amateur and the ecologist. Not all of the botanical divisions have been as well worked as the Dowards and Ross areas. Even the fungi, with which the Club made its name so famous, still offer abundant problems and an unrivalled field for the amateur since the technique required for their study is simple and the apparatus needed is trivial. The moss flora of some parts of the county has received considerable attention, the liverwort, lichen and algal floras very much less and our knowledge of their distribution and ecology in the county is very scanty. These are gaps which amateur botanists resident in the county might well help to fill.

APPENDIX

It is pleasant to record the names of the many botanists, some professional, others amateur, who have contributed to our knowledge of the flora of the county.

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FRUIT TREES PLANTED BY GEORGE SKYPPE AND HIS SON (?) AT UPPER HALL, LEDBURY, 1676-1705

By EDWARD BALL

In volume 34 of the *Transactions* of the Woolhope Club a paper was published by Col. T. W. M. Johnson on the Diary of George Skyppe of Ledbury. In this Diary is given lists of fruit trees planted at Upper Hall, Ledbury, in the years 1676 and 1705. The lists are as follows:—

The names of the wall Fruit in my new garden at Ledbury to begin from the great double doors & soe by the paving steps. viz. (by what names I bought them).

	From the doors downwards viz.
1 The Golden Peach	1 The Black Hart cherry
2 The Argier Apricock	2 The White Hart cherry
3 The Lukeward Cherry	3 The may cherry
4 The Newington nectorine	4 The persian nectorine
5 The superintendant peach	5 The early (double) apricocke
6 The early Apricocke	6 The orleance peach
7 The Duke cherry	7 The Admirable peach
8 The Roman red nectorine	8 The Brown nutmeg peach
9 The Magration plum	9 The Holland plum
10 The Virgillo pear	10 The jarsey peach
11 The newington peach	11 The Duke cherry
12 The Carnation cherry	12 The murry nectorine
13 The Roman Apricocke	13 The Argier apricock
14 The Scarlet peach	14 The Duke cherry
15 The morello cherry	15 The Alburye peach
16 The murry nectorine	16 The navar peach
17 The Morocco (suske) plum	17 The Monsieur Johnpear
18 The Savoye peach	18 The ring pear
19 The Martin sack pear	19 The rombullion peach
20 The Bellose peach	20 The Newington peach
21 The Russett petty black pear	21 White nutmeg peach
22 The French morell plum	22 The Colux peach
	23 Queen noller plum
	24 (Blank)
	25 Red orleance plum
	26 Virboyck plum
	27 Blue date plum

The names of the wall fruit trees in the inward new garden viz :
next the doore entering into the garden are on the wall in the nellon ground

1 Bleeding Hart cherry	1 Savoye (or yellow) peach
2 Morocco plum	2 Burederoye peach
3 Persian peach	3 Winter buncrittion pear
4 Fower may cherries	4 Syon peach
	5 Elruge nectorine
	6 Violet muske peach
	7 Roman red nectorine
	8 Roman red nectorine
	9 Mussle plum

(The following note and list is in a different handwriting.)

The names of my Wall fruit bought in ye year 1705 part of which is set nye green walk to begin from ye top so towards ye house.

1 Muscatt pear	Two violet Brugnion peach
2 White Figg	Murry nectorin
3 Chesin plum	Pearll grape
4 Brussells apricock	
5 Admirable peach	These last mentioned are
6 Bellsheverus peach	taken into ye wall garden
7 Admirable peach	
8 Bellsheverus peach	
9 White Magdelin peach	
10 Blew Pergrigon plum	
11 White Pergrigon plum	
12 Bury pear	
13 Blanquet pear	
14, 15 & 16 Three old plum trees	
17 White Magdalin peach	
18 Burgundi grape	

From this it can be seen that a great number of peaches were grown at that time, the number of different kinds of fruit being as follows:—

Peaches	...	22	Pears	...	9
Plums	...	12	Cherries	...	8
Nectarines	...	5	Apricots	...	5
Grapes	...	2	Figs	...	1

With so many varieties being grown in one garden it was evidently necessary that some means of identification should be provided. Stephen Switzer, who published his book *The Practical Fruit Gardener* in 1724, devotes a chapter to the subject of the numbering and ticketting of fruit trees. He begins this chapter with the following remarks: Whoever has read *Monsieur de la Quintinie's* works cannot but have observed what a deal of trouble and round-about work the method he proposes for registering his fruit has occasioned him, over half of his folio book being catalogues of fruit disposed in such and such quarter divisions of the garden. The same method has prevailed a long time in England (as it may be supposed) after his example, so that a catalogue of 5/600 fruit trees is as difficult to regiment and bring into order as a battalion of foot. The nearest most perspicuous and best method that I have at any time seen or practised is this which follows, which however short is yet the most intelligible of any." Switzer then cites various examples for the numbering of trees in walled gardens which being simpler than the method used by Skyppe would have told us less about the garden.

With so many varieties being grown it is understandable that Skyppe adds that the names of the fruits concerned are those "by what names I bought them". The varieties listed are stated to have been planted in the years 1676 and 1705. Now George Skyppe died in 1690 so that varieties added as being planted in

1705 must have been inserted in the Diary by his successor who was in charge of the gardens.

It was thought that it would be worth while to try to identify the varieties that were being grown at Ledbury in the late 17th and early 18th centuries. First of all, it is interesting to see which of them were described in books of the period, and secondly, which in books of the 20th century. Now the 18th century was very prolific in the production of books about agriculture and fruit growing so there are many which can be consulted, but the writer has been able to find much information from two of them, namely, that written by Switzer¹ and that by Thomas Hitt². Hitt's book was entitled *A Treatise of Fruit Trees* and he was a gardener to Lord Robert Manners, Bloxholme, Lincs., and seems to have a considerable amount of practical experience in the raising and growing of fruit trees. Of the peaches planted at Ledbury, he describes eight, namely, the Admirable, the Brown Nutmeg, the Newington, Persian, Rombullion, Violet Muske, White Magdelin and White Nutmeg. It may be of interest to give some of his descriptions.

Hitt's description of five of these peaches is as follows:—

"The white Magdalene is the first early peach that I recommend. It is a middle sized fruit, of a round make, with a deep furrow on one side; is of a very white colour, except when fully exposed to the sun, and then that side is sometimes faintly marked with red. The pulp is very melting, and parts from the stone, next which it is sometimes a little red, and always full of a rich juice. It generally begins to ripen about the middle or latter end of August.

"Smith's early Newington is a middle sized peach, for a roundish make, and a fine red next the sun, with a soft down upon it, but the other side is of a pale green; the flesh eats firm, and its juice is very pleasant, and the stone is red. It ripens at the latter end of August, and beginning of September.

"The Admirable, so called from its size and beauty, for it is very large and of a round shape, finely coloured with red on the side towards the sun; the flesh parts from the stone, and is of a purple colour; and though 'tis not so soft as some others, yet it has great plenty of juice that is well tasted. It ripens in the latter end of September.

"The Old Newington is known and admired by many; 'tis one of the largest sort, and has a handsome round shape; the side next the sun is of a beautiful red, and so is the flesh next the stone; and when the fruit is perfectly ripe, none has a pleasanter juice, nor in greater quantity; and the pulp is of a fine yellow colour next the skin, it is melting and not too soft; and ripens in the beginning of October.

"The Rombullion is a pretty large peach, of a fine red colour next the sun, with a deep furrow on one side, and rather longish in shape; it is very red at the stone, from which it parts; it is melting, and the juice is well tasted for a late peach, for it does not ripen till October: the tree bears well, but the branches should be kept thin."

Hitt evidently held a different opinion from George Skyppe concerning the advisability of planting many peaches for he wisely says "There is not a necessity of planting so many peaches as pears, for the former are not in eating much more than three months,

¹ *The Practical Fruit Gardener* by Stephen Switzer, 1724.

² *A Treatise of Fruit Trees* by Thomas Hitt, second edition, 1757.

and the latter may be so ordered as to be in use the whole year". Hitt further adds that he doubts whether so many varieties exist as were described in the catalogues, in other words, some sorts were given more than one name.

Switzer¹ describes five of the peaches, namely, Alburge, Bellshevenus, Navar, possibly Nivet, White Magdelin and White Nutmeg.

Of the plums, six are described by Hitt, namely, Blue Pergrigon, Magration, Queen Noller (? Queen Mother Plums), Red Orleanse, Virboysh (probably Verdock of Hitt), White Pergrigon. Hitt describes seven of the pears, Bury (? "red Buree" of Hitt), Blanquet, Muscatt, Martin Sack (? Martin-seck of Hitt), Monsieur John, Virgille (? Virgoleuse or Virgolee of Hitt), Winter Buncrittion (? Winter Bon Chretien of Hitt).

The cherries are all described by Hitt. He describes three of the Nectarines, namely Elrue, Newington and Roman Red, the two latter are also described by Switzer.

The grapes are described by neither of these writers, but Hitt does describe the White Fig. He also describes one of the apricots, the variety Brussels. Switzer describes the early apricot.

Perhaps it is even of more interest whether any of these 17th century varieties are still being grown. Of modern writers, the late Mr. Edward Bunyard took great interest in the history of the varieties he grew and described in his nurseries at Allington and in *Handbook of Hardy Fruits*, published in 1920 and 1925², can be found descriptions of a number of these 18th century varieties. Of the peaches, only the Admirable can be found. Of this he says it was first recorded by Le Lectier in 1628 and known in England in 1729. However, it may have been grown in this country before being recorded in literature. He adds that the sort is rarely grown now.

Of the apricots, Bunyard describes two. The Brussels he says is synonymous with Roman and says of it that it is very old and may go back to Roman times, but it is not now worth growing. The other apricot is the early which he lists under the name of White Apricot and I think this may be its more modern name. He describes it as a small fruit ripening in early July and adds that it was known to Parkinson and may be one of those introduced from Algiers by Tradescant in 1620. Bunyard describes three of the plums, one, the Morocco, he states is an old variety grown in England since the 17th century, now seldom met with but it is hardy and does well as a standard. Mussle he describes as an end-of-August culinary plum, chiefly known as a stock for grafting other varieties on. The third plum he describes is probably the

¹ *The Practical Fruit Gardener* by Stephen Switzer, 1724.

² *A Handbook of Hardy Fruits More Commonly Grown in Great Britain*, vol. 1—Apples and Pears; vol. 2—Stone and Bush Fruits, etc., by Edward Bunyard, 1920 and 1925.

White Pergrigon, the synonyms he gives being White Primordian and Jaune Hative. This is a very old variety known to Parkinson in 1629.

Of the pears, Bunyard only mentions one as it may be the Buree Brown which he describes. He states that this variety was the first to be called Buree and was mentioned by Olivier de Serres in 1608 as Isambart (now called Buree).

Bunyard describes six of the cherries; the Black Heart, and traces its history back to 1667, Carnation, known for several centuries in England and still found in old orchards, Duke, possibly the late Duke or May Duke of Bunyard, the May Duke being an old variety quite probably of English origin as there were several Dukes known in the 17th century, but in France they were called Anglaise, Morello, a variety known in this country since Parkinson's day. White Heart is also described.

A more modern authority on cherries is Mr. N. H. Grubb.¹ He describes the varieties Black Heart, Carnation, May Duke and Morello.

Of the nectarines, Bunyard describes two, his Elruge, of which he says the name is said to be an anagram of the name of the raiser Geurel, whose nursery between Spittlefields and White Chapel is referred to by Meagar in 1670. The Roman Red planted by Skyppe may be the Roman described by Bunyard because he says it is one of the oldest varieties, being mentioned by Parkinson in 1629. He adds that it is now little grown, but for its vigour and firmness is quite worth preserving.

One of the grapes is described by Bunyard as it is probably his Black Cluster, or in German, Blauer Burgunder. This he states is one of the oldest of grapes being mentioned by Estienne in 1554. It is still one of the main varieties in the more northerly vineyard owing to its early ripening. Its fruits outside in Southern England in a warm season.

Dr. B. G. Levy, who is interested in the subject, has received a letter from Mr. A. Simmonds, of the Royal Horticultural Society, from which the following is an extract :—

"... so far as I am able to judge I should say that George Skyppe had an unusually large collection of varieties of Peach. Thus John Parkinson who published his *Paradisi in Sole* in 1629, just before Skyppe was born, lists only 21 varieties and Skyppe lists 23. True Parkinson said 'Many other sorts of Peaches there are, whereunto wee can give no especial name, and therefore I passe them over in silence', but even so Skyppe's list is a long one, especially as John Lawrence in his *The Clergyman's Recreation*, published in 1717, after Skyppe's death, mentions only six.

"The other fruits mentioned are not remarkable in regard to the number of varieties, though I doubt whether many gardens of the period could have had so many plums or cherries. In pears he does not seem to have been very strong for Parkinson listed 63.

¹ *Cherries* by N. H. Grubb, 1949.

"As to varieties themselves, some were known to Robert Hogg and were described by him in his *Fruit Manual* in 1884, though most if not all of them and many others have now gone out of cultivation.

"In regard to the spellings, 'Bon Cretien' which was part of the name of several pears was rendered as 'Bon Chretien' by Parkinson in 1629, as 'Boncretien' by John Evelyn in 1693, and as 'Bon Cretien' by John Lawrence in 1717. It is therefore easy to forgive George Skyppe for misspellings."

AN OCCURRENCE OF THE BASAL DITTONIAN ZONE FOSSIL AT DERNDAL HILL

By B. B. CLARKE, M.A., M.Sc.

The fossil fish *Pteraspis leathensis*, White, was found this year at Unett's Wood, Derndale Hill. This is part of the Dinmore mass of upland and lies between Dinmore Hill itself and Westhope Hill. The altitude at which the fossil occurred is 480 feet O.D. The specimen when etched showed the fine dentine ridges characteristic of *Pteraspis*. It embraces the right cornual plate, the right branchial plate and part of the dorsal disk. The size of the plates suggests the species *P. leathensis*.

The *Psammosteus* Limestone is only thin at Derndale and seems to occur in two bands at about 400 and 450 feet O.D. The succession of the rocks is very similar to that at Crews Wood a little over half a mile eastwards (see *Woolhope Transactions*, Vol. XXXIII, 1951, text fig. 3, p. 223). The levels at which the lithology changes suggest a fall in the dip of the rocks from Crews Wood to Unett's Wood of about 25 feet. At Crews Wood the topmost zone fossil of the Downtonian, *T. symondsi*, occurs at 500 feet O.D. Thus both the levels at which the lithological changes occur and the zone fossils suggest that the axis of the anticlinal structure of which Dinmore Hill is a part has been passed when we move from Crews Wood to Unett's Wood, Derndale. Rather more evidence than that from one locality is desirable to be quite sure of this however.

WAYNE HERBERT QUARRY

By B. B. CLARKE, M.A., M.Sc.

The rocks exposed here are 700 feet O.D. The quarry lies off the road south west of Newton school, beyond Wayne Herbert farm, overlooking the Monnow valley. The rocks are sandstones and the fossils obtained from them over a number of years indicate that they belong to the zone of *Pteraspis crouchi* in the Dittonian. The fossils are now housed in the British Museum and are described as being in a superb state of preservation. This quarry was

selected for a visit from members of the International Geological Congress in 1948. Dr. E. I. White and Mr. H. A. Toombs prepared a guide for this excursion, and they have kindly provided from this and their other records the following list of fossils from this important site.

Most of the fossils are Ostracoderm fishes, but in addition specimens of two different classes of Arthropods—Crustaceans and Arachnids—have been found.

Among the Ostracoderms Pteraspids and Cephalaspids are the most common. Besides the zone fossil, *P. crouchi*, there are three distinct varieties of *Pteraspis* *rostrata-toombsi*, *virgoi* and *waynensis*. *Paraspis sericea* has also been found here. Twelve distinct species of *Cephalaspis* occur including *C. jacki*. Eight of the twelve are peculiar to this quarry. *Weigeltaspis* also occurs. In addition to these Ostracoderms fragments of Acanthodians of various sorts have also been found.

The Crustacean finds are also of great interest and include *Prearcturus gigas* believed to be an Isopod. The Arachnid finds are those of the large Eurypterid *Pterygotus* cf. *anglicus*. This large scorpion-like animal is well known from the Ludlovian rocks and passes up from the Silurian into the Grey Downtonian where it has been recorded from Ledbury. It is however very unusual to find it as high up the Old Red Sandstone succession as this.

On the occasion of the Club's visit we found the fossil horizon to be a band of very hard greenish grit near the bottom of the quarry. A complete ventral disk of *P. crouchi* was found and some other Ostracoderm fragments. There were also plant fragments.

ST. JAMES'S CHURCH STOKE ORCHARD

The small church of St. James at Stoke Orchard is one of the most interesting in the neighbourhood. It was formerly a chapelry of Bishop's Cleeve, which, in the middle ages, belonged to the Cathedral Priory of Worcester.

It was built, probably at the expense—and certainly for the convenience—of the lord of the manor during the 12th century. The traditional site of the manor house, still partly moated, is exactly opposite.

The aisleless nave, with its five small, deeply splayed windows, two doorways (one with original ironwork with grotesque beasts on the north), font, and pillars of the chancel arch, remains almost untouched from about 1150, a rare survival indeed. The only alterations are a 15th century window on the south, and the upper part of the chancel arch, which is of mid or late 13th century date.

The chancel was rebuilt in the 13th or 14th century, and two at least of the windows were renewed in the 15th century.

Other points to note are: the bell-cote in an unusual position between nave and chancel; the 12th century piscina in the chancel, and the 13th century piscina in the nave (the latter only discovered in 1953); the Jacobean pulpit and Elizabethan seating; parish chest, 17th century; communion rails, 18th century; nave roof and plaster ceiling dated 1723; Jacobean Holy Table. Note also the many mass clocks or scratch dials and the votive crosses scratched or cut on or near the south doorway, and on various stones on the south side of the church. The south door has a plain, solid, uncarved tympanum, an unusual feature in Norman work.

THE WALL PAINTINGS

The most important feature of the church is, however, the remarkable series of wall paintings fully uncovered and dealt with by Mr. E. Clive Rouse, M.B.E., F.S.A., in 1952 and 1953.

Four or five main periods can be distinguished, though, in order to reach the earliest and most interesting, a good deal of the later work had to be removed. A photographic record has, however, been made.

1. The earliest paintings date from about 1200, or possibly before, and consist of a comprehensive series which covered the walls of the nave. They are of a most exceptional character and exhibit details not seen elsewhere in England, and suggesting Scandinavian influence. They may have some connection with the curious group of carvings at Kilpeck. The full interpretation of the scenes is not yet worked out, but they concern the life of one or more saintly missionary bishops, one of whom was possibly St. Sigfrid, a monk of Glastonbury who converted King Olaf of Sweden in the 11th century.

The sequence appears to run from east to west along the south wall, across the west wall, and from west to east along the north wall, terminating on the east wall, north of the chancel arch, where two souls, with halos, are seen being lifted to heaven in a napkin by an angel, before an adoring throng, including one figure who may have been one of the Bishop's persecutors or tormentors.

Scenes which can be identified are: a bishop interrupted at his prayers by demons; a figure with a tau cross admonishing a royal personage; three figures in a boat (all on south wall); evil-doers falling away from the bishop(?); a vision of Christ; the bishop and his three companions baptising or confirming converts; a dragon; a small building with the bishop at prayer (all on west wall); a group of four important figures apparently instructing one with a scourge; the bishop scourged; the penitence of his tormentor(?); the bishop in act of blessing forgives two of his tormentors; a figure with whip scourging a figure before an

important throned personage (all on north wall) ; two souls lifted to heaven in a napkin (east wall) ; a head of Christ and others (behind pulpit).

The borders should be particularly noticed : in their variety and vigour they are unsurpassed, containing scrollwork of half-a-dozen types, dragons, monsters, human heads, and interlacing work.

Above the upper border on the south wall are devils conveying damned souls to hell in a handcart, doubtless part of a doom or Last Judgment. In one of the window splays is a scene amid battlements with a figure blowing a long horn or trumpet suggesting the fall of Jericho.

2. Later medieval painting was found over the early work in several places. A red brocade pattern may be seen on both north and south walls. On the south are the two feet of a gigantic St. Christopher, probably 15th century, which formerly extended up to the wall plate over the early paintings.

3. At the Reformation (1547) all earlier painting was obliterated with limewash, and framed texts substituted. Remains of several of these can be seen, with gothic lettering.

4. There is evidence of a fairly complete scheme of texts and frames about 1603. The windows were outlined with ornament in purple-red ; there was a crowned rose (north) and crowned thistle with initials J.R. (Jacobus Rex, removed, on the south), together with Time and Death (the skeleton on the west wall) and other texts and frames showing beneath later work on the north wall.

5. Finally, in 1723, after the upheaval caused by the renewal of the roof and ceiling, a whole new series of texts in elaborate frames were put up. One relating to baptism is opposite the font (Acts VIII, 36) ; the Lord's Prayer ; the ten commandments (Exodus XX) are on the north wall. On the east wall, north side, Revelation V, 13 ; south side, St. John VI, 24. On the south wall, Psalm XXXVII, 4. (The words of this text are echoed in an interesting way by the shape of the frame which is in the form of a rayed heart), the creed, and numerous fragments of very elaborate frames of several periods.

6. The remains of the Hanoverian royal arms are to be seen above the chancel arch.

Very few churches retain so much unaltered early work ; and fewer still can show such a fine successive series of instructional, devotional and decorative painting covering more than five hundred years.

HOLME LACY

By PREBENDARY S. H. MARTIN

Notes from "Holme Lacy, an episcopal manor and its tenants", by H. M. Colvin, in *Medieval Studies presented to Rose Graham*, 1950.

The story begins in the time of William the Conqueror when the Bishop of Hereford, who held the manor of the King, was induced to grant it to Walter de Lacy, so that the parish which should have been called Holme Bishop, obtained its name of Holme Lacy. There followed a dispute in which a descendant, Hugh de Lacy, claimed partial exemption from the service of two knights which he owed as tenant, but the Bishop, Gilbert Foliot, won his case. Hugh de Lacy, however, had the presentation of the living, which he gave to the monks of Gloucester as part of the endowment of their new cell of St. Guthlac, Hereford.

In the thirteenth century another Walter de Lacy gave a large part of his manor to the Grandmontine house of Craswall, and, being in debt, sold another portion of his land to William Fitzwarine. William gave this to the White Canons (Premonstratensians) of Lavendon in Buckinghamshire. He gave the land so that they might build and sustain an abbey at Holme Lacy. The abbey, however, was not built, for at this point the Bishops, Ralph of Maidstone and Peter de Aqua Blanca, intervened. The alienation of their property was prevented by arrangements with Augustine the abbot of Lavendon and with the heirs of Fitzwarine ; while the monks of Craswall were bought out for five hundred marks.

There now followed a period of great disturbance caused by the rebellion of Simon de Montfort. Bishop Peter handed the manor over to the Dean and Chapter, on condition that they made a gift of corn every year to be distributed to the poor at the Palace. The Dean and Chapter, however, leased it to the Abbot of Dore on the same condition. The Abbot found that the distribution was not easy to carry out, in view of the disturbed state of the country ; the corn was therefore given away at Lydbury North. All these precautions failed to save the situation, for the barons, headed by Roger de Clifford, sent a body of armed men to raid Holme Lacy. The Abbot of Dore came to Hereford to seek protection from his landlords, only to find that the Bishop, the Dean, the Precentor and some of the Canons were imprisoned in Eardisley Castle. He rode the fifteen miles to Eardisley and was told that the Cathedral could not help, so he made the best of a bad job, went to Roger de Clifford, and bought him off for forty-two pounds. Roger's receipt for this is now in the Bodleian Library. The Abbot then gave up his tenancy, and claimed damages from the Dean and Chapter. We have the details of the pleas on both sides, but not the verdict.

At last in 1280 the manor reverted to the Dean and Chancellor, who held it for many years, till finally in 1581 it was given to the Scudamore family in exchange for the rectory of Fownhope. It was about 1280 that the building of the present church began, with its tower, nave and chancel.

It is curious that while the Scudamores put up so many monuments, they did not erect one in honour of their greatest man, Sir John Scudamore, who did so much for the county, the city and the king, and who with great generosity returned the tithes which came to his family after the Reformation, not only in Holme Lacy but also in Abbeydore and Ballingham. It is known, however, that he was buried here.

BRYDGES AND LEE-WARNER HATCHMENTS AND COATS OF ARMS IN TYBERTON CHURCH

By PAUL MORGAN, F.S.A., M.A.

In the church at Tyberton, built in 1720 there are five coats of arms carved in relief over the windows and chancel arch which link up with the six hatchments now in the vestry under the tower at the west end. How William Brydges (1601-1668) purchased Tyberton Court from Kynard Delabere and how it eventually passed by marriage into the Lee Warner family can already be found in print, so only a description of the achievements is needed here, while the pedigree (facing p. 284) shows the inter-connections. The church was built by William Brydges (1681-1764) whose interest in antiquities is reflected in the carved coats of arms as well as in the fine library once housed at the Court; the hatchments, however, are survivals from a former common practice, though the fact that they are still in existence perhaps shows that an interest in the past was common to all generations.

Since the Court has now been demolished and the family is no longer resident in the parish, it is perhaps as well to put on record these traces of former glory.

As the practice of displaying hatchments is nearly extinct, a few words of explanation are perhaps necessary.¹ The word "hatchment" is a corruption of the heraldic term "achievement", meaning originally an armorial shield, and subsequently applied to the diamond-shaped frame charged with a coat of arms displayed for a few months outside the house on the death of a person entitled to bear coat-armour. Hence it was frequently removed to a church connected with the deceased. This custom, which began in the 16th century, became very popular between the late 17th and the first half of the 19th century, but has fallen into disuse though occasionally observed at the older universities when the head of a college dies in office. Those with which we are now concerned range between 1764 and 1858.

The style of any hatchment will tell the observer certain particulars about the person commemorated, while the practice of including on the shield the coats of all the maternal ancestors of armorial rank often gives important genealogical clues. Types of hatchment fall into six main classes:—

- (i) Bachelor, showing the paternal coat, crest, helmet of the appropriate degree and mantling on an entirely black background.
- (ii) Husband survived by his wife, showing his own coat impaling that of his wife, with crest, helmet and mantling, with the

¹ For a full description see N. E. Toke: "The hatchments in the churches of Canterbury" in *Archæologia Cantiana*, vol. 50, 1939, pp. 72-86.

dexter half of the background black, to denote his death, and the sinister half white. Should his wife have been an heiress in her own right, her arms would be shown on an escutcheon of pretence.

- (iii) Husband survived by his second wife, which can be shown in two ways: (a) with his coat impaling his first wife's coat on the dexter and his surviving wife's on the sinister, with the background of his own and his first wife's black and that of the second wife's coat white; the whole surmounted by a helmet, crest and mantling. (b) The husband's arms with the usual crest, helmet and mantling are painted on an entirely black background, but on the dexter side of the hatchment is a small oblong escutcheon with his arms impaling those of his first wife, the dexter side being white to show that he survived her; and on the sinister side of the hatchment is a similar escutcheon with the dexter side black and the sinister side white to show that the second wife survived him.
- (iv) Unmarried lady, showing her paternal arms on a lozenge shaped shield suspended from a knot of ribbon on an entirely black background. There should be no helmet, crest nor mantling, but frequently there is a cherub's head at the top.
- (v) Wife survived by her husband, showing her arms impaled with those of her husband with the background to his (on the dexter side) white to indicate he was still alive; the sinister side shows her arms on a black background. No crest, helmet or mantling should be displayed and instead there should be a love-knot and a cherub's head as in (iv). Note that this type usually has a shield, not a lozenge.
- (vi) Widow, showing her arms impaled with those of her dead husband enclosed in a lozenge, with the whole background black and the feminine accompaniments described in (iv) and (v).

Hatchments for peers have supporters added, and those for members of knightly orders have the shield encircled by the ribbon of that order. It should be noted that names rarely appear, except on very early hatchments or when added at a later date; excellent examples of the latter can be found at Wolverley, near Kidderminster. Another feature is that the family motto is used most infrequently, and instead some pious form of words is added, such as *Resurgam* or *Memoria pii aeternam* as at Tyberton. Skulls, crossbones and other symbols of mortality are frequently found.

The Tyberton hatchments pose several heraldic problems, mentioned in the descriptions below, but the one common to all is that no *martlet for difference* appears on the Brydges coat while it does on each of the carved shields in the church. The *martlet* in this case indicates a junior branch of the main family, and probably

no official permission was given for its omission. The builder of the church, William Brydges (1681-1764) observed the correct form for his branch, but presumably his successors resented the imputation of juniority and so left out the martlet as soon as he died, as it does not appear on his hatchment (No. 1).

Hatchments, being usually made of wood and canvas, easily decay or are, regrettably, as equally easily destroyed, so it is fortunate that this excellent series remains at Tyberton. Only one (No. 5) is in a poor condition, so it is perhaps not inappropriate here to enter a plea for the preservation of these interesting survivals wherever possible, as their number is rapidly decreasing; the addition of the names of the persons commemorated might prevent their destruction in the future.

HATCHMENTS

(1) On the eastern side of the south wall under the tower.

Unframed; 4 ft. 5 in. each side.

Background all black (*i.e.* a widower).

Arms: *Argent, on a cross sable a leopard's face or* (Brydges), impaling on the dexter, *Ermine, a demi-lion rampant, erased azure* (faded to *sable*), *collared or, thereon three torteaux* (Card of Gray's Inn), and on the sinister, *Argent, a chevron sable between three ravens proper* (Rice of Newtown, Carmarthenshire).

Crest: On an esquire's helmet, *A Saracen's head in profile couped at the shoulders, vested paly and gules and semé of roundles counterchanged, on his head a cap lined white and collared ermine* (Brydges).

Motto: *Memoria pii aeterna.*

This represents William Brydges (1681-1764), the builder of the church, who married firstly Jane (died 1718), only daughter and heir of Andrew Card of Gray's Inn, by whom he had one daughter, Elizabeth (1718-1750). He married secondly Catherine, daughter of Griffith Rice of Newtown, Carmarthenshire, sometime after the church was built in 1720, since the Rice arms are not shown in William's coat carved over the chancel arch (*see* Shield A). There was no issue of this second marriage.

(2) On the south side of the west wall under the tower.

On a canvas of 2 ft. 2½ in. each side in a black wooden frame of 2 ft. 9½ in. each side.

Background white and black (*i.e.* a wife survived by her husband).

Arms: Brydges impaling Rice of Newtown, Carmarthenshire, both as in (1).

Motto: *Memoria pij aeterna.*

This is the hatchment for Catherine Rice, the second wife of William Brydges (1681-1764), mentioned in (1). There is no crest, as is correct for a female's hatchment, but the arms are on a shield instead of the more usual lozenge. This shield is completely

surrounded by very elaborate floriation which is continued on to the frame at each corner in a rather unusual manner. The date of Catherine's death has not been ascertained.

(3) On the north side of the east wall under the tower.

On a canvas measuring 4 ft. 4 in. in a wooden frame 5 ft. each side, covered with velvet.

Background black and white (*i.e.* a husband survived by his wife).

Arms: Quarterly of six, 1 and 6, Brydges as in (1); 2, *Or, two bars gemelles sable, in chief a chess rook between two mullets of the last* (Marshall of Blewberry, Berks.); 3, *Gules, a fess between three mullets or* (Oswald of Strangford); 4, *Sable* (?faded *azure* or *vert*), *a fess wavy between three lions rampant or, a crescent of the first in centre fess* (?Kemp), 5, Card of Gray's Inn, as in (1); impaling, Quarterly, 1 and 4, *Or, a lion rampant sable, collared and chained or, on the collar three mullets gules* (Phillipps of Eaton Bishop); 2 and 3, *Argent, three ravens proper, each standing on a mount vert* (Ravenhill of Hereford).

Crest: On an esquire's helmet, the crest of Brydges as in (1).

Motto: *Resurgam.*

This is the hatchment for Francis William Thomas Brydges (1751-1793), the grandson of the William commemorated in hatchment (1). He married in 1785 Anne, fifth daughter of Thomas Phillipps of Eaton Bishop by his wife Sarah, only daughter and heir of Robert Ravenhill, of Eaton Bishop also. The only child of this marriage, Anne Brydges, married in 1808 Daniel Lee-Warner, so bringing Tyberton Court to that family.

The fourth quarter of the first coat presents a problem as it cannot be definitely identified. It will be seen from the pedigree that the arms of Francis Brydges' grandmother (Card), great-grandmother (Oswald), and great-great-grandmother (Marshall) have been incorporated. It would seem reasonable, therefore, to presume that the unidentified coat should represent his great-great-grandmother (Kemp), but this is not so; neither are they the arms of any of his paternal ancestresses, nor those of the Vaughan family. The only solution seems to regard them as an unrecorded variant of the Kemp family.

(4) On the east side of the south wall under the tower.

Unframed canvas; 3 ft. 8 in. each side.

All black background.

Arms: Brydges as in (1).

Crest: On an esquire's helmet, the crest as Brydges as in (1).

Motto: *In memoria pij aeterna.*

The exact member of the Brydges family represented here cannot be determined. It could be for an unmarried male, or possibly for Edmund Brydges, the husband and cousin of Elizabeth, daughter and heir of William Brydges (1681-1764) mentioned in (1).

(5) On the north side of the west wall.

On canvas of 3 ft. 8 in. each side in a plain, unvarnished wooden frame of 4 ft. 7 in.

All black background.

Arms and crest exactly as in (4).

Motto : *In memoria pii aeternâ.*

The remarks on the identification of (4) apply in this case also. The canvas of this hatchment is in a poor condition, with several tears and a large hole through the crest.

(6) On the central north wall under the tower.¹

On canvas of 4 ft. 10 in. each side in a wooden frame covered with velvet of 6 ft. 8 in. each side.

Background black and white (*i.e.* a husband survived by his wife).

Arms : Quarterly of six, 1, *Gules, a fess compony counter compony or and of the field between eight billets of the second* (Lee) ; 2, *Counter quartered i and iv, per pale indented argent and sable, ii and iii, azure, a fleur de lys or* (Warner) ; 3, *Vert, a cross engrailed argent* (Whetenhall of Kent) ; 4, *Or, a fess between three wolves' heads erased sable, langued gules* (Howe of Berwick St. Leonard, Wilts.) ; 5, *Vert, three mulberry leaves or* (Woodward of Little Walsingham, Norfolk) ; 6, *Erminois, three swords in pale, blades argent, hilts gules* (? Howarth). On an escutcheon of pretence, Brydges as in (1).

Crest : On an esquire's helmet, *A squirrel sejant gules, holding an acorn proper between two oak branches fructed proper* (Lee-Warner).

Motto : *Resurgam.*

The escutcheon of pretence on this hatchment has been painted on a scale commensurate with the main quarters, but the manner in which the shield is planned leaves no doubt of its nature. The only member of the Lee-Warner family entitled to bear the Brydges arms in pretence was the Rev. Daniel Henry Lee-Warner (1775–1858) who married Anne (died 1868) the only daughter and heir of Francis W. T. Brydges (1751–1793) mentioned in hatchment (3). The first two quarters are the basic Lee-Warner coat ; the reason for the introduction of the Whetenhall arms in the third is obscure, but it was first used by John Warner, bishop of Rochester (1605–1679) and continued by his heirs, though the connection with Harmer Whetenhall of Norfolk (1516–1586) although fairly definite, has not been quite settled. In the fourth quarter appear the arms of his great-great-grandmother, Dorothy (died 1727), daughter of Sir George Grubham Howe, 1st baronet, of Berwick St. Leonard, Wiltshire. The Woodward coat in the fifth quarter was the paternal one of Daniel Henry Lee-Warner, whose father had been born a Woodward but had assumed the surname of Lee-Warner on succeeding to that family's estates after the death of his mother's first cousin, Henry Lee-Warner (1722–1804). The sixth quarter cannot be identified, but it seems it should represent Daniel Henry's

¹ See illustration opposite.



Photograph by F. C. Morgan.

ARMS OF THE REV. DANIEL HENRY LEE-WARNER (1775–1858) who married Anne (d. 1868) only daughter of and heir of Francis W. T. Brydges (1751–1793). (Hatchment No. 6.)

mother, Mary, daughter and heir of Nathaniel Howarth of Wolhurst Bank, Lancashire; that family's coat, however, is recorded as *Azure, a bend between two stag's heads couped or*. This lady is the only heiress not represented which increases the possibility that either the heraldic painter made an error or that we have here an unrecorded variant.

SHIELDS CARVED IN RELIEF OVER THE WINDOWS AND THE CHANCEL ARCH

(A) Over the centre of the chancel arch.

Argent, on a cross sable a leopard's face or, a martlet gules for difference (Brydges) impaling *Ermine a demi-lion rampant, erased azure, collared or, thereon three torteaux* (Card of Gray's Inn).

These are the arms of the builder of the church, William Brydges (1681–1764) and of his first wife Jane, only daughter of Andrew Card of Gray's Inn, who died in 1718. It indicates that William could not have married his second wife Catherine Rice before the church was completed in 1720.

Compare hatchments (1) and (2).

(B) Over the west window on the north side.

Brydges, as in (A), impaling on the dexter *Or, a fess between three mullets gules* (Oswald of Strangford) and on the sinister, *Argent, a fess dancetty gules* (Chetle of Worcester).

Here is represented the father of the builder of the church, Francis Brydges (1661–1727), who married firstly Elizabeth, daughter and heir of Peter Oswald of Strangford and Much Fawley, Herefordshire, and who died in 1690; he then married Jane, daughter of Thomas Chetle of Worcester and widow of Antony Rowdon (1629–1697) of Rowden, Herefordshire. The tinctures in the Oswald coat have been reversed, possibly at a later re-painting. Compare hatchment (3).

(C) Over the west window on the south side.

Brydges, as in (A), impaling *Gules, three garbs in a bordure engrailed or* (Kempe of Wickham, Bucks.).

This shield shows the arms of the builder's grandfather, Marshall Brydges (1634–1709), and his wife, Elizabeth, daughter of Francis Kempe of Wickham, Buckinghamshire.

(D) Over the east window on the north side.

Brydges, as in (A), impaling *Sable, three bars argent, a canton ermine* (Marshall of Yorkshire).

William Brydges (1601–1668), great-grandfather of the builder is shown here. He married Ann, third daughter and co-heir of Edward Marshall of Blewberry, Berkshire, in 1628 at Stoke Lacy. The main coat of the Marshall family is blazoned, but the correct arms for this particular branch are given in the second quarter on hatchment (3).

(E) Over the east window on the south side.

PEDIGREE OF BRYDGES AND LEE-WARNER OF TYBERTON COURT, HEREFORDSHIRE
TO ILLUSTRATE ARMORIAL BEARINGS AND HATCHMENTS IN TYBERTON CHURCH.

Nos. 1-6 refer to hatchments. A-E refer to arms carved in the church.

Brydges, as in (A), impaling *Per pale azure and gules, three lions rampant argent* (Vaughan of Courtfield).

The builder's great-great-grandfather, William Brydges (1584-1627) of Upleadon, married Margaret, daughter of John Vaughan of Courtfield, Welsh Bicknor, Herefordshire, and she died in 1655; there is a monumental inscription to her at Mordiford. Her branch of the Vaughan family abandoned their traditional and picturesque arms (*Sable, three boys' heads couped at the shoulders argent, crined or, enwrapped about their necks with as many snakes proper*) and adopted the Herbert coat displayed here.

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A TRIAL TRENCH ACROSS THE DEFENCES OF THE ROMAN FORT AT TEDSTONE WAFER, HEREFORDSHIRE

By GRAHAM WEBSTER, M.A., F.S.A., A.M.I.C.C., A.M.A.

This excavation was carried out by members of the Hereford Archaeological Research Group on 11th-13th September, 1954, inclusive. Thanks are due to the owner-occupier, Mr. Whistance, not only for his kind permission to excavate but for scything the standing crop on the area required in advance of cutting.¹

The site² was first discovered by Dr. K. St. Joseph from the air³. The crop mark lies wholly within field No. 78, O.S. 1/2500 No. Hereford XIV, by Coppice House on High Lane (Fig. 1). It had the appearance of a small, double-ditched Roman military fort of which three sides, the west, south and east, were visible, the approximate E.W. axis being 250 ft. between the ramparts. The only gate position seemed to be on the east side and if this occupies a central position the N.-S. axis would be about 200 ft.

¹ The excavation was organised by Miss Mary Thomas. The excavators consisted of Mesdames D. Currie and D. Oxley, Misses A. E. Etheridge, E. Davies, J. Currie, L. Perrett, Messrs. V. H. Coleman, V. Higham, E. R. Wood, C. B. Eyre, A. Brown, J. K. Clake, C. G. Spink, Dr. B. G. Levy and Col. T. W. M. Johnson.

² Nat. Grid Ref. 32/676602.

³ Photograph NE/39 facing p. 285.

JAMES BRYDGES
Died 1603

WILLIAM BRYDGES =
1584-1627. Of Up-
leadon. Buried at
Bosbury. (E)

MARGARET, daughter of John Vaughan of Courtfield, Monmouthshire.
Died 1655. M.I. at Mordiford. (E)

WILLIAM BRYDGES = ANN, 3rd daughter and coheir of Edward Marshall
1601-1668. Purchased of Blewberry, Berks.
Tyberton Court in Married 1628 at Stoke Lacy.
1652 from Kynard Died 1656. (3, D)
Delabere (D)

MARSHALL BRYDGES = ELIZABETH, daughter of Francis Kempe,
1634-1709. Of Tyber- of Wickham, Bucks. (? 3, C)
ton. High Sheriff of
Hereford, 1672. (C)

FRANCES, daughter of
Robert Creighton,
canon of Wells, the
only surviving son of
Robert Creighton,
bishop of Bath and
Wells.

MARSHALL BRYDGES
b. 1665. Of All Souls
College, Oxford. 3rd
son.

JANE, daughter of
Thomas Chetle of Wor-
cester, and widow of
Anthony Rowdon (1629
-1697), of Rowdon,
Herefordshire and
High Sheriff of Here-
ford, 1685. (B)

(2) = FRANCIS BRYDGES
1661-1727. Of
Tyberton and the
Middle Temple.
(B)

(1) ELIZABETH, daugh-
ter and heir of
Peter Oswald of
Strangford and Much
Fawley, Hereford-
shire. Died 1690.
(3, B)

CATHERINE, daugh- (2) =
ter of Griffith Rice WILLIAM BRYDGES =
of Newtown, Carmar- 1681-1764. Of Ty-
thenshire. o.s.p. (1, 2) berton. (A, 1, 2)

(1) JANE, only daughter
and heir of Andrew
Card of Gray's Inn.
Died 1718. (1, 3, A)

FREDWISA TAYLOR (2) = EDMUND BRYDGES.
A maternal cousin. 3rd son.

(1) ELIZABETH
BRYDGES. 1718-
1750. Married
1739.

ELIZABETH CREIGHTON BRYDGES

FRANCIS WILLIAM THOMAS BRYDGES
1751-1793. High Sheriff of Here-
ford, 1782. (3)

ANNE, 5th daughter of
Thomas Philipps of
Eaton Bishop. Married
1785. Married second-
ly Joshua Scrope of
Long Sutton, Lincs. (3)

DANIEL LEE-WARNER =
1752-1835. Assumed
surname of Lee-
Warner in 1805 by Act
of Parliament. Heir of
Henry, 1722-1804.

MARGARET, daughter
and heir of Nathaniel
Howarth of Wofhurst
Bank, Lincs. Married
1774. (? 6)

ANNE BRYDGES
Married 1808.
Died 1868. (6)

Rev. DANIEL HENRY LEE-WARNER,
1775-1858. Of Walsingham Abbey,
Norfolk. (6)

Colonel HENRY LEE-WARNER = DOROTHY, daughter of Sir George Grubham Howe,
1st baronet, of Berwick St. Leonard, Wilts., and his
wife Elizabeth, daughter of Sir Harbottle Grimston,
2nd baronet, of Essex. Married 1679. Died 1727. (6)

ANNE Married
1710. Died 1761.

Rev. RICHARD
HUNTLEY. R.
Boxwell, Glos.
Died 1728.

HENRY LEE-WARNER =
1681-1760.

MARY, daughter of
Samuel Mills of Pack-
ington, Warwickshire.

MARY = DANIEL WOODWARD,
of Bristol.
Died 1755. (6)

HENRY LEE-WARNER,
1722-1804. Unmarried.
Succeeded by Daniel
Woodward, 1752-1835.



Aerial view of Roman site at Tedstone Wafer.

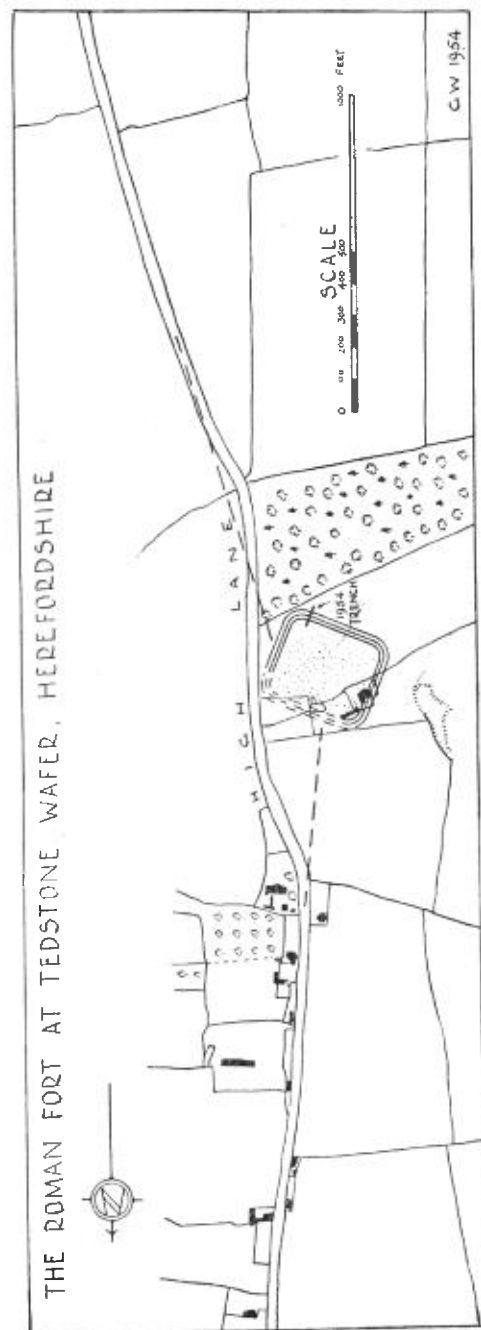


FIG. 1.

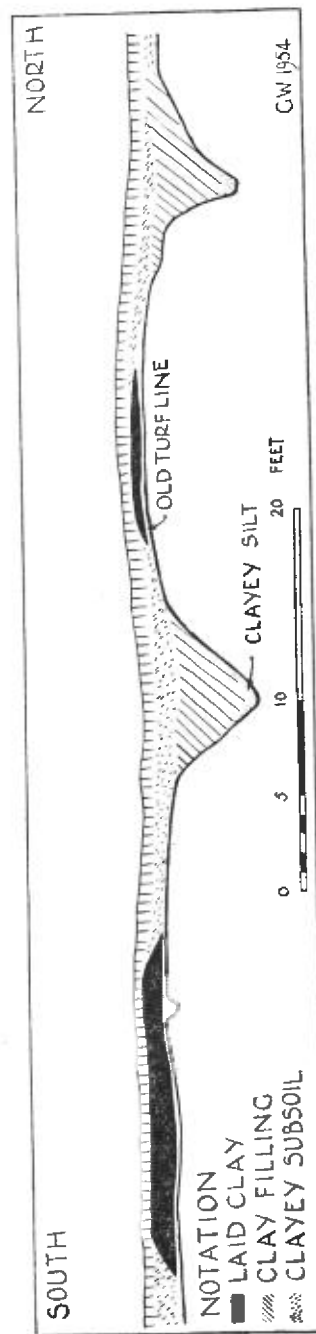


FIG. 2.

There is evidence to support this in the configuration of the ground immediately to the north of Coppice House, suggestive of the position here of the N.W. corner. This gives an area of a little more than an acre from the outer edge of the rampart. Only one trench was cut and this on the south side. It was sited to avoid the complication of a gate and also the circular crop mark which may be the ditch of a prehistoric tumulus.

The trench (Fig. 2) was 82 ft. long. It revealed two ditches cut into the stiff natural clay. The outer one was 10 ft. wide and 4 ft. 6 in. deep. The inner one, a well cut V-shaped example, was 10 ft. wide and 5 ft. deep. The 16 ft. strip between the ditches was covered with a layer of red clay, evidently from the ditch excavation. This may originally have increased the actual depth of the ditches, which appear otherwise to be small by general Roman military standards, by being shaped to their slopes. In this way an extra depth of three to four feet could have been achieved without any difficulty.

Both ditches had been deliberately filled in, the inner one with a mass of grey clay and the outer one with a mixture of grey and red clay. The only evidence of rapid silting may be the red, slightly silty clay, forming a six inch thickness on the sides and bottom of the inner ditch, although this profile could only have been caused by the ditch being cleaned out or recut before receiving its grey clay filling. Otherwise the primary silting would have been at least two feet thick. The deliberate filling was evidently from the clay rampart and the chronological aspect is considered below.

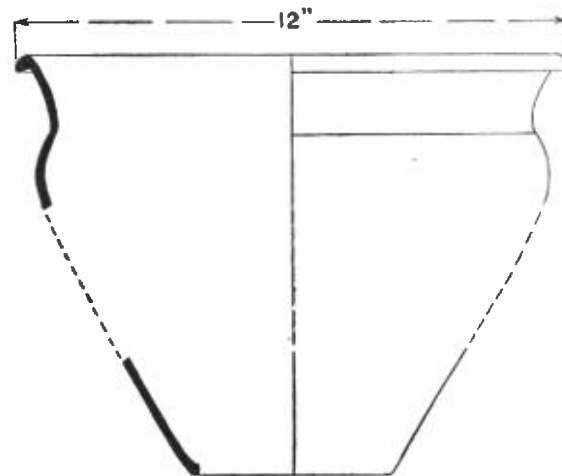
Behind the inner ditch there were traces of the base of a red clay rampart about 17 ft. wide. There was no definite edge to this at either end but it faded into clayey loam of a different texture. Towards the front of the rampart there was a slight box-like cutting into the natural clay which ran across the trench. It was reminiscent of a sleeper beam trench and might have been associated with a front timber revetment. This is not strongly urged since it was filled with the loamy clay which appeared to have been the old land surface, whereas if it had been a beam slot the clay rampart would have collapsed into it as the timber decayed. This feature could have been formed by a large tree root penetrating below the pre-Roman ground level.

The excavation has clearly demonstrated the military characteristic of the site although further work is required before other essential details, such as gateways, are recovered. Another suggestive characteristic is that of the road, High Lane, in its relationship to the fort. The modern road takes a distinct bend to avoid the fort and if the alignments on both sides were continued towards the fort, as the dotted line on the plan suggested, they would impinge on gate positions, one faintly discernible in the photograph to the east side in the centre of the N.-S. axis and the other from the north conjectural, allowing for the usual tripartite

division of a fort with the *principia* facing enemy territory, *i.e.* towards the west. It thus seems possible that High Lane was originally a Roman military line of communication.

THE POTTERY

In the clay filling of the inner ditch were found fragments of a wide-mouthed bowl in light red ware (conditions had removed all traces of surface treatment). The fabric is typical of the west Midlands and similar examples, usually burnished, have been noted at Gloucester,¹ Bourton-on-the-Water,² Bredon Hill (Worcester)³, Wroxeter⁴ and Sutton Walls⁵ in second century contexts. The implication of this find is that the ditches could not have been filled in before the second century. If the fort is of Claudian-Flavian date, as one would expect from the known historical context, it is difficult to explain the absence of a turf-line between the clay filling and the primary silt. The evidence on its face value suggests that the fort was actually constructed, and soon abandoned, in the second century. Clearly further work is required before any conclusions can be drawn with certainty and the precise chronological significance of this vessel must remain in doubt.



RECONSTRUCTION BOWL FOUND AT TEDSTONE WAFER, 1954.

¹ *Journal of Roman Studies*, xxxiii, Fig. 3, nos. 34-37. Where C. Green considers them to be late first/early second century.

² *Ibid.*, Fig. 3, no. 36. In Cheltenham Museum.

³ Information from Mr. A. Moray-Williams.

⁴ Atkinson, *Excavations*, 1923-1927, Fig. 45, nos. B5 and C5. These two similar vessels were found in different levels, one c. A.D. 160 and the other c. A.D. 275.

⁵ *Archæological Journal*, cx, (1953), Fig. 17, no. 6, in a group dated to the end of the second century.

HERALDRY ON THE WILLISON TOMB IN MADLEY CHURCH, HEREFORDSHIRE

By PAUL MORGAN, M.A., F.S.A.

In the following descriptions, the position of each shield is placed on the assumption that the altar is at the east end of the church. Only slight traces of colouring now remain, but tinctures have been supplied in the blazons here from those given in the Visitations mentioned in the Pedigree, George Strong, *Heraldry of Herefordshire*, 1848, and Burke's *General Armory*, 1883. These tinctures have been italicised in the first blazon of each shield.

SHIELDS

(I) On the south side of the tomb at the west end.

Sable, a chevron *argent* between three lions rampant double queued *or*, (Willison of Sugwas) impaling *Gules*, a bend between six unicorns' heads couped *argent* (Wombwell of Silvercliff, Yorkshire).

This shield refers to the grandfather of the Richard Willison, (died 1574), who is commemorated by this tomb. His wife was "Walis", as she is called on the inscription, a member of the Silvercliff branch of the Wombwell family, which had several branches in Yorkshire.

(II) On the south side at the east end.

Willison of Sugwas impaling a blank.

It must be inferred that this vague shield refers to the father and mother of Richard Willison, since his grandparents, himself and his child are all represented, so that it seems logical that his parents should also be included. His father was John Willison who married Alicia Skippe of Ledbury; the Skippes were armigerous, bearing *Azure*, on a chevron between three estoiles *or*, two roses *gules*, so it is strange that John Gildon did not add them.

(III) On the west side, at the head of the tomb.

Willison of Sugwas impaling *Paly* of six *or* and *gules*, on a bend *sable* three mullets of the first (Elton of Ledbury).

This coat represents Richard Willison himself and his wife, who was Anne, daughter of William Elton of Ledbury. The tinctures of the pales in the Elton coat can be found in several variations; Strong (*op. cit.*, p. 47) records *Paly* of six *or* and *azure* on a monument in Marcle church, while a Lancashire family of this surname bears *Paly* of six *argent* and *gules*; the common feature of all is the black bend with three golden mullets.

(IV) On the east side, at the foot of the tomb.

Quarterly, 1 and 4, *Argent*, two bars *gules*, in chief three cinquefoils *azure* (Denton of Hillesdon); 2 and 3, quarterly I, *Argent*, a fess dancetty *gules* between three billets *sable*, two and one;

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MADLEY

East end of tomb of Richard Willison (1575).
Made by John Gildon of Hereford



South side of tomb of Richard Willison.

II, quarterly i and iv *Or*, a lion rampant *sable*, ii and iii, *Gules* a fess dancetty [*between six crosses crosslet or*]; III, *Ermine* [*on*] a fess [*three crosses crosslet*]; IV, *Argent*, three greyhounds' heads erased in pale *sable* collared *or* between two pallets of the second. Overall at fess point a mullet for difference. Impaling Willison of Sugwas.

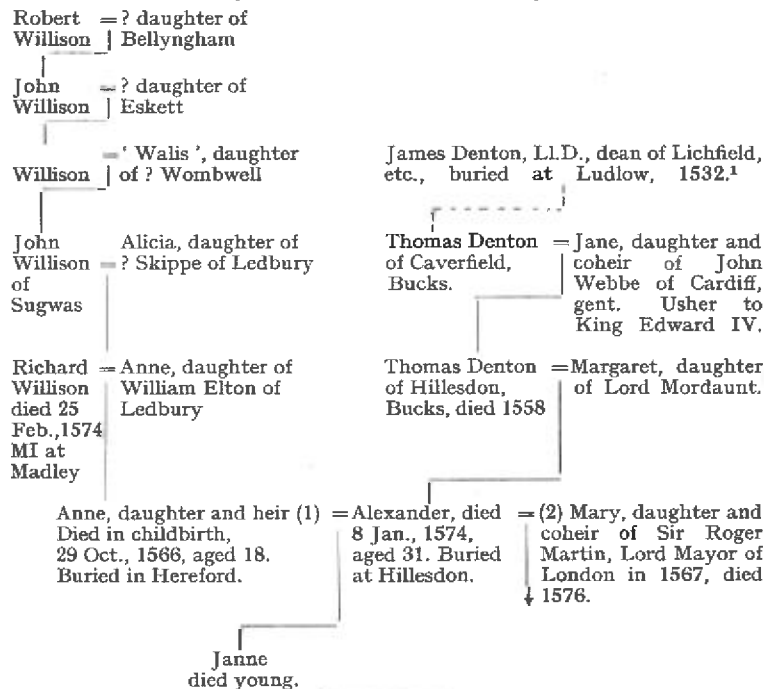
This elaborate coat represents Richard Willison's only child, Anne, and her husband Alexander Denton of Hillesdon, Buckinghamshire. This is rather poignant as Anne predeceased her father by eight years and her only child also "died young", as the Visitation has it; moreover, Alexander Denton also died about six weeks before Richard Willison, but he had married a second wife and left descendants. The tomb, then, commemorates the last of a line who had experienced the great grief of losing both only child and only grandchild before he himself died.

The Denton coat as displayed here presents many problems. At the 1634 Visitation of Buckinghamshire (*Harleian Society*, vol. 58, 1909, pp. 36-37) no arms were recorded, but on the original manuscript in the Bodleian Library of the particular version used by the Harleian Society, Peter Le Neve (1661-1729) a distinguished herald, has added a shield of nine quarters with one in pretence and the first six are the same as those at Madley. A glance at the pedigree would suggest that the twice-quartered second and third quarters would represent Mordaunt or Webbe, but neither of these families apparently have ever used any of the blazons on this tomb and the arms noted by Le Neve. It is interesting to note that George Lipscomb, the historian of Buckinghamshire (*History and antiquities of the county of Buckingham*, vol. 3, 1847, p. 17), notes that the Denton coat is *Quarterly 1, Argent, two bars gules, in chief three cinquefoils and at fess point a mullet* (Denton, as above); 2, *Argent, a chevron between three estoiles wavy sable* (Mordaunt); 3, *A bend gutty* (?). When two or more coats are conjoined by quartering, it indicates usually that the bearer is the descendant of two or more heirs of armigerous families. Now, Alexander Denton's mother, the daughter of Lord Mordaunt, was not an heiress in her own right, but his grandmother Jane Webbe was, so it can only be assumed that the second and third quarters of his shield on this tomb represent Webbe of Cardiff. A support for this theory is found in the fact that *Or, a lion rampant sable*, one of the subdivisions found at Madley and noted by Le Neve, represents, among other families David ap Mathew, standard bearer of England in the reign of Edward IV. Welsh families are notoriously mindful of their genealogical connections and it is a possibility that the Webbes of Cardiff were relatives of this standard-bearer, especially since John Webbe was remembered in the pedigree recorded in 1634 as having been an usher to the same King. But all this is pure speculation only, and no concrete evidence of identification of these arms has been discovered.

The arms as carved on the tomb have certain variations from those blazoned by Le Neve, though they may be caused through the disappearance of paint from the tomb. On the tomb in the second and third quarters of the second quarters of the second and third grand quarters, there are no *six crosses crosslet or*, while in the third quarters of the same sub-sections, there are no *three crosses crosslet on the fess*; all of these may have been shown in paint only and not carved. On the tomb also, the three objects *in pale* in the fourth quarters of the second and third grand quarters are very hard to identify; Le Neve draws them as *greyhounds' heads erased*, but on the tomb they might easily be *garbs*.

PEDIGREE OF WILLISON AND DENTON

to illustrate the heraldry of the Willison tomb in Madley Church, Herefordshire



Based on: *The Visitation of Herefordshire . . . in 1569*. Edited by F. W. Weaver. 1886, pp. 76-77. *The Visitation of the County of Buckingham made in 1634*. Edited by W. H. Rylands (Harleian Society, Vol. 58), 1909, pp. 36-37. G. Lipscomb: *The History and Antiquities of the County of Buckingham*. Vol. 3, 1847, p. 17.

¹ The connection between James and Thomas is purely conjectural. The dean of Lichfield, naturally celibate, mentioned no relatives whatever in his will, of which a transcript exists in *Ashmolean MS 1123*, fol. 104r-105v in the Bodleian Library, Oxford.

COPIES OF DOCUMENTS BELONGING TO MAJOR J. R. H. HARLEY, BRAMPTON BRIAN, PRINTED BY HIS PERMISSION

HEREFORD CASTLE

The two following papers deal with the history of Hereford castle in the early years of the 18th century. It appears that the money for the purchase of the castle from Col. John Birch, who had been granted the property by the Parliament, was advanced by Col. Sir Edward Harley (1624-1700), and the writer of the first note was his grandson Edward Harley, the second earl of Oxford (1689-1741). Wainwright was his legal adviser. The castle was sold to the six members of Parliament for Herefordshire for the benefit of dwellers in the county, and is now leased to the Corporation of the city, by the county magistrates, for the annual rent of of £1 0s. 0d. The deed of sale by Birch is among the archives at the City Library.

(1) The City of Hereford being in the late Unhappy Civil War often plunged and exposed to the Ravage of the soldiers, Col. Birch being too much concerned in this and having obtained a Grant of the site of the Castle of Hereford. S^r Robert Harley, S^r E. Harley and others to prevent future mischeifs agreed with Col. Birch for his Title which is conveyed by a Deed enrolled and Fines to S^r R. H., S^r E. H. and others and the survivors of them, by an Endorsement on the said Deed signed only by S^r Robert Harley it is declared that

upon the payment of £600 with Intrest at $\frac{1}{8}$ per cent, the Premises shall be for the use of the County.

Note. The said Purchase Money was paid by S^r R. H. or S^r E. H. and was never repaid, but as the Purchase was only designed for the benefit of the County of Hereford, S^r E. H. in his life time and the late E of Oxford left the management of the same to the Justices of Peace of the said County confiding in their disposal of it to the best advantage.

S^r E. H. was the surviving Trustee.

Quare Whether any Lease or Demise of the Premises by the Justices of the County is valid in Law.

Quare: Whether the present E. of Oxford in whom the Inheritance is vested can be compelled to convey over the same without the Repayment of the Purchase Money.

Quare Since S^r E. H. was present at several of the sessions orders relating to the Castle (as appears by the Report sent to Ld Oxford) and considering the last E. of Oxford Letters to the sessions, a copy of which is inserted in the same paper. What is proper for the present E of Oxford to do.

Endorsed on back

The case of Hereford

Castle Feb 172 $\frac{1}{2}$

Upon the desire of the Gentlemen of the County of Hereford at their last Quarter Sessions, that I would send an Answer, whether I insist on any title to the Castle Green and appurtenances.

(2) I have look'd into my own evidences and the Papers transmitted to me and find, I am advised, that the legal Estate of the Premises descended to me charg'd and chargeable in the first place, with the payment of six hundred pounds and interest after the rate of eight per cent from the year 1647, and subject to that charge, then in trust for the County, and that my Family is entitled to the principal money and interest Soe charg'd upon the Premises it having been the proper money of my Grandfather and advanced by him for the purchase of the Premises and never since repaid.

To this State of my title, which I have caused to be drawn up at the request of the Gentlemen, I shall only add. That as I have the right of my Father and Ancestors I have allsoe their regard and inclination for the Publick service of the County of Hereford, and shall in any proper and reasonable method shew myself ready to preferr that to my private interest

My Hon. Lord

In obedience to your commands, I send this Draft, that I may have your directions, if you would have it alter'd when I wait upon you to day. If your L^dship approves of this form it might be proper to send it to the Master for his and Mr. Auditors approbation before it is sent from you to the Gentlemen

I am

your Lordship's
faithfull humble servant
Jo Wainwright

Lincolns inn

Thursday morning

(Endorsed on back)

Mr Wainwright
to the Earl of Oxford
17th

THE COMMISSION OF THE PEACE FOR HEREFORDSHIRE, 1660

These are to require you to renewe the Comission of the Peace for the County of Hereford and therein to place the persons herein named and alsoe nominatinge the Lord Viscount Scudamore Custos Rotulor' and this shal bee your warrant.

Dated the Second day of July 1660

To the Clarke of the Crowne

or his Deputy

Hereford

(Signed) Edw Hyde

q Lord Chancellor
q Lord Marq. Ormonde
q Lord Generall
q Earle of Manchester
John Viscount
Ld Scudamore
q Wallop Brabazon

John Barneby of Rockhampton
Francis Unett
Edward Cornewall

Barronets

q Sir James Bridges
q Sir John Kirle
q Sir Edward Hopton
q Sir Edward Ling
q Fitz Wm Coningesby
q Edward Harley
Thomas Cornewall
Thomas Thomkins
Roger Vaughan

John Vaughan
Humphrey Baskerville
John Booth of Hereford
q Bennett Hoskins Esqr
John Birch
q Edward Pills (sic)
Wm Gregory
James Pitts
Thomas Blaney Esqr

Barronets

q John Prise
q Wm Kinsam als Powell
John Scudamore Senr
q Thomas Prise
John Skipp
Thomas Cocks
q Richard Hopton
Humphrey Cornewall
Thomas Harley
John Barneby of
Cannon Pyon
Rudhall Gwilliam
q Job Charleton
Roger Bosworth
Herbert Westfaling
Richard Reed

EDVIN LOACH

By Prebendary S. H. MARTIN, M.A.

Mention is made in Domesday Book of a district near Bromyard called Gedeven, Edevent, Jedefen and Zedefen. It is described as the land of Osbern FitzRichard, but soon afterwards it fell into the hands of two families, the Ralfs and the De Loges, from which the two parishes of Edvin Loach and Edvin Ralph derive their names. Ralf de Yedefen appears in the margin of Hereford Domesday, but the De Loges are first heard of in the district in the second half of the twelfth century when Germanus de Loges, "in the presence of Bishop Gilbert, Dean Geoffrey and the synod of Hereford clergy, gave the church of St. Giles in Yedenon together with two hides of land in the parish of Lyde to the priory of St. Guthlac, Hereford" (see St. Guthlac's Cartulary, No. 204). This is the first written mention of the church, though the name Edvin (from the Anglo-Saxon Yeden 'to go') and the early masonry of the building bear witness to its existence in the eleventh century.

The gift of Germanus may have been in response to pressure from the diocesan authorities, who had just built the priory outside the walls of the city and were anxious to equip it with sufficient endowments. The two following charters (205 and 206) show that the gift involved the Bishop and the Prior in difficulties, for two clergy, Brinsius and Osbert, claimed rights. The matter was decided by a synod in Hereford over which the Bishop presided. Brinsius gave up his claim on the payment of one and a half marks, while Osbert was allowed to hold the living on condition that he and his successors paid two shillings annually to the priory and that the church sent an annual gift of three shillings to Clifton-on-Teme, the mother church of Edvin Loach. This three shillings was duly paid as late as 1536 (see Valor Ecclesiasticus, III, 280, and Swinfield's Register, p. 134).

The charter of Germanus also reveals that the church, which has always been known as St. Mary's, was originally dedicated to St. Giles. Had the reference stood alone it might have been passed over as a mistake made by the writer of the charter, but it does not stand alone; it is corroborated by a place-name. Close to the church, not much more than an acre in size, is an orchard belonging to the Parochial Council with the remains of a cottage once occupied by the parish clerk, long known as St. Giles' Acre.

Germanus was probably by that time lord of the manor. His mother Albreda and his daughter Isabel and his son Richard consented to his gifts to the priory. A hundred years later John de Loges and his son William were still patrons of the living. In 1256 William released the parson from his payment of two shillings and made a further gift to the priory of a messuage and six acres in the parish. So the parish rightly took to itself the name of Edwin or Edvin Loach. The old church, which is still standing, is described by Habington in his *Survey of Worcestershire* (Vol. I, p. 516) as "a little church without arms or monuments which adjoineth so near to an old fortification that they both seem to possess jointly antiquity and poverty". It was replaced by a new church in 1800.

MUCH MARCLE—AND SALT FROM DROITWICH

By the late JAMES G. WOOD, F.S.A.

(Sent by Miss C. Radcliffe-Cooke)

An extract from Dr. J. H. Rounds "Introduction to the Domesday Survey of Herefordshire", in Vol. I of the *Victoria County History* of that county, pp. 294, *et. seq.*, reads:—

"The Herefordshire woodlands are of more interest than either the fisheries or the water mills . . . they were closely associated in this county with hunting for profit, with the spread or decay of cultivation, and, strange as it may seem, with the salt industry of Worcestershire. . . . The connexion between the woodlands and the salt industry at Droitwich is illustrated by the entry on Fladbury (Worcestershire), where the Bishop of Worcester is stated to receive all the produce of the wood in (1) hunting, (2) honey, and (3) fuel for the Droitwich salt pans. In Herefordshire the 5s. received for the wood at *Marcle* were given for 60 mits of salt at Droitwich, and 5s. were similarly apportioned from the 22s. received for the woodland at Leominster, and produced 30 mits. . . . The system is explained in the entry on Bromsgrove, the first royal manor in Worcestershire, which, although possessing saltpans, etc., of its own at Droitwich, had to send thither 300 cart loads of wood (for the furnaces) in order to obtain thence 300 mits of salt . . . the king's manor of Marden had 9 "seames" (summas) of salt from the saltworks there (Droitwich) or 9d. (in lieu thereof); on the Bishop's lands are four manors of which one owned a saltpan at Droitwich, another a saltpan there 'rendering 16 mits', and the others severally shares of salt pans; 'walintone' also was entitled to seams 16 mits of salt at Droitwich for 30 pence."

The passage cited by Dr. Round is the only passage in the Herefordshire Domesday Book associating salt with *Marcle*.

The passage as to Bromsgrove occurs in the Worcestershire section (fol. 172a) which may be translated as follows:—

"Kings Land. Bromsgrove. To this Manor belong 13 salt springs at Droitwich; and 3 salt workers who render from those springs 300 mits of salt—and to them were given at the time of King Edward (Confessor) 300 cartloads of wood by the wood-wardens. There are 6 leaden boiling pans there."

This shows that though the *salinae* belonged to the King, they were not in his possession or worked by him.

To Dr. Round's explanation I may perhaps add this:—Originally the right to work a *salina* or salt spring was granted by the Crown to a subject with the right to take from the King's forest sufficient wood to evaporate the brine. In return for this the grantee had to render, by way of rent service (not as "tribeck"), a certain number of mits of salt. In course of time this grant of wood was commuted for a money payment—but the obligation to deliver the salt remained.

This had its analogy in the Iron Works in the Dean Forest. Those who had the right from the Crown to work "bloomaries" (or smelting furnaces), such as the abbeyes of Tintern and Flaxley had also the right to take necessary timber and wood—and the King had a render of iron ore or blooms.

Salt was in great use in the middle ages. In the account to the King of the Warden of Chepstow Castle (1310) he returned in the stores account "2½ Carcases of Beef Salted—sold for 12/-"—Salt was not allowed to be sent out of England into "the Marches"—so the Lords of Chepstow imported it from Gascony for sale—and kept a large store there. Sir Wm. Herbert, Earl of Pembroke (*obit.* 1468), by his will left 100 tons of salt from his store at Chepstow to be sold—and the proceeds to be given for the restoration of the cloisters at Tintern. I apprehend that salt was always in demand and could be readily converted into money.

I do not know anything of the Saxon Palace at Wychbold—but it was early Crown property for I find that in 692 Ethelred of Mercia granted 111 manentes (or homesteads) on the bank of the Salwarp and called Unicbold for the use of the Church at Worcester.

Nor do I know anything of a tax on the use of the Droitwich-Bromsgrove road—but Dr. Round mentions that in Cheshire there was a tax on the transport of salt. It may be that if we could learn more about this it would explain why several roads were called Saltways.

REPORTS OF SECTIONAL EDITORS

ARCHÆOLOGICAL REPORT FOR 1954

By I. COHEN, M.I.Mech.E.

Too late for reporting last year visits were made by Col. T. W. M. Johnson and myself in the Ross district on December 15th, 1953.

At Weston-under-Penyard Mrs. Perry's husband had ploughed up an orchard that had not been disturbed for 200 years. Amongst other objects she showed us were pieces of slip ware from the orchard site, suggesting the former presence of some form of habitation.

At Adams Cot ($\frac{3}{4}$ mile north of Lea) Mr. A. D. Boynton showed us a few flint cores and we were told that other flints had been sent to the Hereford Museum some five years ago. He had found flints scattered in a field to the east of his cottage.

Mr. S. J. Cookson of Firbank, Pontshill, about 200 yards south of Noakes cottage had found a piece of pottery, suggestedly of the Hallstadt type with finger decoration, some 18 inches below the surface, on top of eight inches of powdered charcoal. He said it had been examined by Mr. W. F. Grimes of the London Museum. He also told us he had sent some pottery to the National Museum of Wales. However after writing to the Museum I was informed that it could not be traced. Arrow heads and flints scattered about had been given to the secondary school at Ross, and to Mrs. Leeds of the Ross Grammar School. In addition we were told that Mrs. Longford at Bromsash has some Roman coins from Ariconium.

ANCIENT MONUMENTS

March, 1954. The Ministry of Works states that the following have been scheduled :—

- | | | |
|--------------|-----|---|
| Monument No. | 37 | Bristow, Wilton Castle. |
| | 139 | Cusop Castle. |
| | 144 | Leominster, Castle moat. |
| | 145 | Leominster Priory, site and remains of transepts and eastern arm. |
| | 146 | Kilpeck, village earthwork and site of ancient village. |
| | 147 | Brinsop, moated site 200 yards south of Brinsop Court. |
| | 148 | Hemhill, moated site. |

EXCAVATIONS AT PUTLEY

These were started at Easter and continued at most week-ends until August. The site is in a field to the north of the second

orchard east of Putley Rectory. Roman pottery had been found in 1953 when trenching for field drains. This year's excavations revealed two trenches, sealed by subsoil, filled with dark soil until they crossed the 1953 trench at right angles and connected with large irregular-shaped depressions containing dark earth, charcoal, etc. A considerable amount of third century pottery, tiles and iron nails was found, mainly in the trenches and depressions. No masonry was discovered, except a small amount of paving and a collapsed wall. The site slopes from south-west to north-east. It is hoped that the Archæological Section will present a full report at a later date.

FIREPLACE AT MUCH DEWCHURCH

Visits were made in May, June and July to the Black Swan, Much Dewchurch, where Mr. W. J. Bishop, the licensee, was making alterations and had found an old fireplace. This had part of an old lintel, made of oak, that had at one time been sawn short leaving a piece in position containing some carving and two sets of markings, readable as 1618 and 1815. This may mean that the original date was 1618 and the date of alteration as 1815.

As the present operations developed it was found that a supposed "priest's hole" was actually where three successive fireplaces had been located. The side of the room has now been rebuilt in stonework and a stone column inserted, carrying the old fragment of lintel.

CARVING ON HOUSE AT COMBERTON

Two visits were made to inspect the front of a 17th century farm cottage in Comberton, near Orleton. There is a vertical member forming part of the support of an upper floor and on this member is carved the upright figure of a man carrying an axe. A front view of the cottage appears on Plate 19 of the Royal Commission on Historical Monuments Report, but the carving is not visible in the illustration.

FONT AT PETERSTOW

The original font of Peterstow was acquired after various ownerships by W. H. Morgan, of Wilton, a former churchwarden, and reported to the Advisory Committee for the care of Churches. After inspection by Mr. F. C. Morgan, who gave his opinion that it was the original font, it was returned to the church and re-dedicated on the 4th July.

The font is probably 14th century, made of conglomerate from the upper red sandstone of the Forest of Dean area and measures as follows :—

External diameter	...	29 inches
Internal diameter	...	20 inches
Height	...	15 inches
Depth	...	6 to 7 inches, but has probably been reduced from its former size.

POTTERY SITE AT ST. MARGARETS

Two visits were made to St. Margarets where Mr. Gavin Robinson reported that a pottery site had been uncovered after timber felling and deep ploughing by Mr. Gwilym.

The first visit was made on July 18th by Miss S. Robinson, Messrs. F. C. Morgan, B. Butcher and myself. The site showed dark discoloration, numerous fragments of pottery and firing plates. Three fragments showed finger-tip depressions as ornamental round rims and several had handles.

The second visit was made on July 24th by Messrs. J. Griffiths, B. Rogers, F. C. Morgan and myself. By now the site had been harrowed. Numerous pottery fragments were unearthed and the possible site of one kiln at least was uncovered. One pottery fragment had one smooth and one twisted handle. All appeared to be 17th century in origin. Mr. Griffiths took away many pieces and has since reconstructed several complete vessels. The site will be seeded to grass in future.

NETHERWOOD MANOR PIGEON HOUSE

At the end of July the County Planning Committee reported to Herefordshire County Council the receipt of a grant from the Pilgrim Trust to cover the whole estimated cost of putting the pigeon house in sound order.¹

INVESTIGATIONS AT COED-Y-GRAFOL

On August 7th along with Miss M. Wight and Prebendary S. H. Martin I visited Coed-y-Grafol where Mr. Reed, the occupier, showed us a sloping field facing south-west, separated from his farmhouse by a sunken grass lane, that, though stoneless elsewhere, had a level patch some 20 yards by 30 yards, covered with stones a few inches below the surface. Ploughing had almost obliterated the level patch which may have been a terrace. Five stones about 3 ft. by 2 ft. and some inches thick had, he said, been once laid as part of a wall, but had now been removed. He hoped to re-locate a tessellated pavement reported as having been uncovered a few years before 1779, as recorded in *Archæologia* of 1786, Vol. VI, p. 13, and mentioned in the Woolhope *Transactions* of 1905, p. 264. The paragraph in *Archæologia* reads "Mr. Hay wrote that a few years ago, as he was credibly informed, some considerable vestiges of a tessellated Roman pavement were also found at Cored Gravel, which is about two miles to the north of Old Castle . . . this seems to argue some temporary settlement of the Romans there."

No evidence of Roman occupation was visible, in spite of a diligent search by Messrs. Reed and Martin, but we think something might be found if a trench were dug in the field above the house.

An adjacent barn has a new circular central support column, built of arcuate small stones. It is about 18 inches in diameter

and is capped by what seems to be a Roman capital. Is it possible that the capital is a remnant of the supposed Roman villa?

EXCAVATIONS AT TEDSTONE WAFER

The Archæological Section confirmed by digging between, September 10th and 13th, the existence of a Roman fort suggested by an aerial survey by Dr. St. Joseph in 1952. A detailed report by G. Webster appears on pp. 284-287.

EARLY EXPERIMENTS IN ANÆSTHETICS

In a letter to T. A. Knight of Downton Castle, published in 1824, Henry Hickman of Shifnal (1800-1830) describes some experiments.

There were six operations on puppies, mice and dogs, apparently, without pain. The creatures were placed "under a glass cover surrounded by water so as to prevent the ingress of atmospheric air, where their respiration in a short time ceases". In other experiments the insensibility was "much more suddenly brought on by the agency of sulphuric acid and carbonate of lime".

Further he stated "I feel perfectly satisfied that any surgical operation might be performed with quite as much safety upon a subject in an insensible state as in a sensible state, and that a patient might be kept with perfect safety long enough in an insensible state for the performance of the most tedious operation".

The letter was sent to the Royal Society and to the French Academy of Medicine, but made no impression. Possibly this was due to his youth. Thus it was that America was able to claim the first use of anæsthetics by C. W. Long of Jefferson, Georgia, in about 1842. A panel in the north wall of Bromfield church was dedicated to Hickman's memory in 1930.

BELOW GROUND IN ROSS

A preliminary inspection of two cellars on September 14th, one below the King's Head Inn and the other beneath the Saracen's Head, about 30 yards to the east, indicated a possibility that they had been connected at one time. Two further visits on November 16th and 23rd were made and two walls on the north and west sides of the Saracen's Head were pierced. In each case the wall had been built to close up a doorway, the remainder of the walls being either solid rock, or rough stone work of more than one period. After piercing the north wall there appeared to be a mass of compressed rubble, over which had been built some cottages. The west wall indicated a hollow beyond. The cellar had a brick arched roof, with a smaller arch at right angles. A natural rock pillar of triangular section with sides measuring five feet partly supported the ceiling.

Visits were paid to the cellars of the intervening buildings on the west side. They had been hewed from the solid rock and

¹ See also pp. XXIX and XXXII, and illustration facing p. XXVI.

later extended to reach the building line of the street on the south, having brick walls with window openings at this side. The north sides were of varied shapes, one with a semi-circular recess, formed partly of solid rock and partly of stonework. The cellars were divided by stone walls and each wall showed that doorways had been filled up at some more recent date by coarser stonework. The cellar at the King's Head showed a closed up doorway and we were informed that one cellar floor there had been concreted recently, so diverting a spring that existed at its west end.

Inspector D. Grigg, who accompanied me, agreed that it was conceivable that a well, fed by the spring, had existed in the original cellar and was thus accessible to both inns and the intervening buildings. Further inspection is impracticable until such time as extensive alterations are made to one or more of the buildings.

TYBERTON CROSS

September 17th. The top of the old cross at Tyberton has been repaired (where damaged by iron dowels) by L. Davis, of Hereford, under the supervision of E. A. Rosier, architect, of Cheltenham.

MOAT IN TRILLOES COURT WOOD

On October 4th with Mr. V. Higham and Mr. T. C. Gwynne of Little Dewchurch we inspected the site of the moat (map ref. 546.324), described in R.C.H.M. as Homestead Moat, 700 yards south-west of Bolstone church. Situated on a slope it is partly filled with water-washed silt. On a slope above there was a thick charcoal deposit. Probing in other places indicated a possible stone wall, traces of a short length being visible at one point. The surroundings being coppice wood of great density made measurements impracticable at the time.

A spring higher up which is the cause of silting is now used as a water supply for Ballingham. There is a local legend that monks at one time blessed the spring and attributed curative properties to it. Is this the origin of the name, Trilloes meaning "holy"? There is a Trill mill close by. Does any record exist of a Trilloes Court? A search through local parish registers may furnish useful information. Excavation, when the coppice is somewhat cleared, may uncover the foundations of a building, if any ever existed.

WHITE CROSS

The housing estate now being developed near the White Cross has an access road at present in alignment with the cross. On enquiry of the City Surveyor I was told that he did not wish to disturb the cross and had written to the Ministry of Transport for permission to so arrange the new road as to leave the cross on an island site. Work on the road has been suspended until the position is clarified. (October 5th.)

POUND AT BREDWARDINE

Visiting Bredwardine on October 19th I interviewed the occupier of the old toll house near the bridge. Opposite the toll house is a small triangular field bounded on one side by a stone wall, and at one time was a cattle and sheep pound. Payments were made at the toll house to which the field appertains.

It will have been noticed that several matters mentioned in this report are awaiting further investigation. In addition I have received from Major Salt some particulars of a "Stone Road" by the Whelpley Brook near Stanford Bishop. Up to now there has been no opportunity to deal with the siting and legends associated with the road.

BOTANICAL REPORT, 1954

By F. M. KENDRICK

In June, 1954, the Club paid a visit to Hartlebury Common where, amongst others, the following plants were noted:—

- Bucks-horn plantain (*Plantago coronopus*)
- Hoary pepperwort (*Lepidium draba*)
- Bog bean (*Menyanthes trifoliata*)
- Sundew (*Drosera rotundifolia*)
- Marsh cinquefoil (*Potentilla palustris*)

all of which are rare in or absent from Herefordshire.

In August a visit was paid to Aconbury where a prolific growth of danewort (*Sambucus ebulus*) was inspected. The elecampane (*Inula helenium*) which grows near the church, unfortunately had been cut down during hedging work so the flowers could not be seen. At Holme Lacy, Miss E. Armitage drew members' attention to a fine specimen of the tree *Zalkova crenata*. The field-day concluded with a visit to Caplar where some of the typical plants to be found in the district were examined, and the beautiful view was much admired by the members present.

The Botanical Society has had another successful season, starting in March with a members' evening when I exhibited fluid mounts of algae to be found in Herefordshire followed later in the same month with a lecture on "Trees" by Mr. Miles Hadfield. Following the lecture by Mr. Hadfield, a field meeting was held in Holme Lacy Park where the lecturer described a number of the trees to be found in the grounds. Field meetings were arranged for Westhope Common, Checkley, Stanner Rocks and Kington district, Ledbury, Mathon, Lea Bailey and Wigpool, Mordiford, Lugg meadows, Black Mountains (Olchon Valley), Downton Gorge

and Llanrothal. The last mentioned meeting was to try and find the acrid lobelia (*Lobelia urens*), but was unsuccessful and it seems as if this plant is now extinct in the area.

The most important records received during the year either by the recorder of the Botanical Society or myself, are as follows:—

1. NOT RECORDED IN THE FLORA OR ADDITIONS OF 1894

Petasites albus, Gartn. Dist. 12.¹ Wood, Winforton house (Miss Powell). A naturalised plant found mainly in the north.

Cyperus longus, Linn. Galingale. Dist. 2. Banks of Wye (Dr. R. W. Butcher) (Day). Very rare and local.

Senecio vulgaris var *radiatus*, Koch. Dist. 7. Sewage Farm, Hereford. (Miss I. Muller.) Rare. Dist. 9. Leominster railway station (Day). Kew states that this plant is now fairly frequent on waste ground and railway ballast in many parts of Britain, and seems to be spreading.

Lathyrus hirsutus, Linn. (Rough or hairy pea). Rare. Dist. 7. Sewage Farm, Hereford. (Mrs. Whitehead.) Three or four plants.

Carduus tenuiflorus. Dist. 7. Hereford station (Day). This thistle is frequent near the sea, but this is the first record for the county.

Chenopodium glaucum. Rare. Dist. 4. Hopyards, near Bosbury (Day).

Impatiens parviflora D.C. Naturalised. Dist. 11. Kington. Dist. 12. River Arrow (Miss Dunne), Pembridge.

Sisymbrium orientale L. Dist. 7. Lyde (Mrs. Whitehead), Lugg Mills.

Lepidium ruderalis, L. (Apetalous pepperwort). Dist. 7. Lugg Mills on roadside near road reconstruction (Mrs. Whitehead).

2. PLANTS RECORDED IN FLORA

21. *Ranunculus sardous*, Crantz. Not common. Dist. 13. Field between Abbeydore and Wormbridge (Porter).

35. *Papaver dubium*, L. (Long-headed poppy). Dist. 7. Sewage Farm, Hereford (Mrs. Whitehead). Reported in *Flora* as common, but no recent reports received. Can it now be rare?

36. *Papaver argemone*, L. (Long-headed rough poppy). Dist. 7. Lugg Mills (Mrs. Whitehead).

214. *Prunus padus*, L. (Bird cherry). Dist. 14. River Monnow above Craswall. Given in *Flora* for Dist. 14, as Llanthony Valley which is not now in the county.

218. *Agrimonia odorata* (Miller) (Scented agrimony). Dist. 13. Near Vowchurch (Porter).

Astrantia major, L. Dist. 10. Typi-y-Coed, Shobdon (Miss Fairhurst). Has no number in *Flora*. Note on p. 145 gives one unconfirmed record.

332. *Pimpinella magna*, L. (Great burnet saxifrage). Dist. 2. Roadside above Fownhope (Miss Marklove).

423. *Senecio viscosus*, L. Dist. 7. Hereford Sewage Farm (Mrs. Whitehead). Bath Street wood yard (Mrs. Whitehead). Gaol Street (Kendrick).

427. *Doronicum pardalianches*, L. (Great leopard's bane). Dist. 7. Eau Withington (Mrs. Whitehead). Dist. 12. River Arrow (naturalised) (Miss Dunne).

473. *Wahlenbergia hederacea*, Reich (Ivy-leaved bell-flower). Dist. 13. Above Bredwardine bridge (Miss Victor). The station for Moccas Park seems to have been destroyed.

480. *Monotropa hypopitys*, L. (Yellow birds-nest). Dist. 13. Wormbridge (Porter).

489. *Menyanthes trifoliata*, L. (Bog bean). Dist. 13. Wormbridge (Porter).

Linaria repens, Mill. Dist. 2. Mordiford (Webb). This plant bears no number in the *Flora*, but appears as a footnote on p. 212.

551. *Scutellaria minor*, L. (Lesser skull-cap). Dist. 2. Moat, Goodrich Castle (Miss Victor).

556. *Stachys ambigua*, Sm. Dist. 3. Gurneys Oak, Fownhope (Miss Marklove).

727. *Polygonatum multiflorum*, All (Solomon's seal). Dist. 1. Woods, Garway (Major Roberts).

871. *Asplenium viride*, Huds (Green-stalked maiden-hair). Dist. 14. Olchon Dingle (Field-day). Old record.

893. *Lycopodium selago* (Fir-club moss). Dist. 14. Olchon Dingle (Field-day). Old record.

902. *Chara vulgaris* var *longibracteata*, Kütz. Dist. 13. Wormbridge (Porter).

I shall be glad to receive any information from members regarding the occurrence of the Daffodil (*Narcissus pseudo narcissus*) in Districts 10 and 11 (Aymestrey and Kington areas) also any recent record of the bur-marigold (*Bidens tripartita*) which has not been reported of late outside District 7 (Hereford area) where it is found on the Wye and is common on the Lugg.

Before concluding, I should like to mention that this year is the centenary of Henry Marshall Ward, the Herefordshire Botanist who studied botany both in this country and Germany and did much research work especially on fungus diseases of plants in the Far East. He was honoured by the Linnean Society, made a Fellow of the Royal Society, and was elected to the Chair of Botany at Cambridge on the death of Professor Charles Babington.

¹ District numbers refer to "Herefordshire Flora."

ORNITHOLOGY, 1954

By C. W. WALKER

The dull, wet summer of 1954 was most unfavourable to bird life, and made observation difficult. There were, however, several interesting records.

A little gull (*Larus minutus*) was seen on 16th January at Hereford sewage works. It has only once before been recorded for Herefordshire. At the same place during the bitter weather early in February a ruff was to be seen for some days, as well as a knot and a dunlin—all driven from their usual haunts by the hard frost. The floods which followed brought many ducks to the Wye and Lugg valleys, including a flock of pintail which frequented the lower Lugg valley in February and March. A dead spotted crane (*Crex prozana*) was found at Bromsash in March: this has become a very rare species, and was last recorded in this county in 1905. A hoopoe was seen on his lawn at How Caple on 29th April by Major H. Allfrey, and a similar report came from Mr. E. Wilmot on 8th May, the bird being seen on that date at Perry-stone Towers: the localities are not far apart as the crow flies, and both records may refer to the same bird. There were several records of corncrake being seen or heard in the Lugg meadows, and a nest full of eggs was said to have been destroyed by a hay-mowing machine on 11th July. Marsh warblers were heard singing in their usual haunts at the beginning of June, but their nesting was interrupted by floods and the birds vanished. The hobby bred successfully in the county, and adults and young were seen flying together at the end of August. On 26th September Mrs. G. Best saw a golden oriole in her own garden at Canon Pyon—a very rare visitor.

The November gales brought two unusual seabirds to the district: a storm petrel was found in dying condition in Eastnor Park, and a kittiwake was found dead by the roadside near Lower Eggleton.

The north easterly weather in December brought white-fronted geese to their favourite meadows, but the floods which followed sent them off again, and brought many thousands of common gulls to the river valleys from their headquarters in the Bristol Channel. As the water subsided, the meadows were frequented by large flocks of duck, especially wigeon and teal.

COINS BROUGHT IN OR REPORTED DURING 1954

By PREBENDARY S. H. MARTIN

ROMAN

- Per Mr. Williams, Croase House, Kington.
Antoninus Pius. Jupiter with sceptre. A.D. 138-161. R.I.C. 192.
Radiate coin. Illegible. c. A.D. 270.
Valentinian I. *Gloria Romanorum*. A.D. 364-375.
Per M. Edwards, County Secondary School, Ross.
Diva Faustina Augusta, wife of Marcus Aurelius. Rev. *Pudicitia*. R.I.C. 707.
Per Richard Sharland, 10, Lewis Smith Avenue, Hunderton.
Found in the playing field near 47, Haylease Crescent.
Claudius II. *Homoousia*. Greek coin from Alexandria. A.D. 270. Milne 4257.
Per Mr. J. Price, Fordllasa, Three Cocks. Found two feet underground near Gwernylfed Park.
Ptolemy II. Obv. *Zeus*. Rev. Eagle. Large copper coin. Nine like it have been found in Britain.
Per Mr. C. H. Laurence, Ridge Hill, Bullingham. Found in the roof of a house in Mill Street, close to the old wall.
Diva Faustina. Rev. Unintelligible. *Sestertius*.
Per Rev. A. L. Moir. Found by Mr. Foxley at Wilton, near Bridstow.
Domitian. *Fortuna Augusti*. S.C. *Dupondius*. A.D. 87. R.I.C. 349.
Brought in by Mr. Bettington, New Inn, Pembridge.
Greek coin. Bronze. Obv. *Zeus*. Rev. Eagle. Probably from Elis. 300-200 B.C.
Provenance unknown.
Caludius I. *Ex. sc. ob. cives servatos* (with countermark prob.) *Sestertius*. A.D. 41-54. R.I.C. 60.
Caesar Augustus. *Principes juventutis*. Denarius. B.C. 2-A.D. 14. R.I.C. 60.
Crispus. Obv. *Nobilis Caesar*. Rev. *Beata Tranquillitas* *Vot. XX*. A.D. 320.
Magnentius. Rev. *Victoriae NNDD*. A.D. 350-353.
Diva Faustina. Rev. *Ceres*. Denarius. A.D. 141. R.I.C. 358.
Bactrian coin. Obv. Elephant. Rev. Panther. 200 B.C.

BRITISH and FOREIGN

- Per Mr. Sinclair, 14, Leominster Road.
Christina Queen of Sweden. 1 ore. Emergency copper coin minted at Dalaroe. A.D. 1645.

- Per Mr. F. S. Morgan. Ploughed up at Kilpeck.
Anglogallic Jeton. Obv. King's head, border of strokes.
Rev. Short cross, bowed limbs, border as obv. 1300-1400.
- Per Mr. F. S. Morgan. Ploughed up at Shobdon.
French Jeton. Obv. Heater shield with two quatrefoils and three lys. Rev. Cross Potent with four quatrefoils and sprays.
Legends blundered. Possibly from Tournai. 1450-1500.
- Per Mr. C. H. Laurence, Ridge Hill, Hereford. Found at Ridge-hill.
Charles II. Half a crown. 1676.
- Per Mr. V. H. Coleman. Found in Eardisley.
Elizabeth I. Silver groat. 1558-1560.
- Per Mr. R. Melhuish
James I. Brass weight for gold crown piece. Value five shillings and sixpence. 1604-1619.
- Per Mr. Hurcomb, 29, Highmoor Street. Found in Ryeland Street.
Charles I. Token copper farthing. Issued by the Duchess of Richmond. 1625-1634. Obv. *Caro DG.* Rev. Crowned harp. (Brooke *English Coins*, p. 212.)
Coin of three talus of Shareefs of Morocco. 1871.
- Per Mr. Sinclair, 14, Leominster Road.
Indian rupee. Possibly of Mohammed Shah Ruler of Delhi. 1748.
- Per Mrs. Nipper, Council Houses, Kington.
William III. Copper farthing. 1698-1699.

REPORT ON LEPIDOPTERA FOR 1954

By R. B. Sisson

In a recent number of *The Entomologists' Record* I read these words "An account of the moths which usually occur here would, last year, be chiefly a list of species not seen!"

I can endorse that statement as far as Moccas is concerned. Generally speaking, I found the season a very poor one—there were very few butterflies about and the numbers of moths appeared to be well below the average.

However, there were some bright spots. When a willow tree in the garden blossomed, I trapped a total of approx. 2,200 specimens—small quakers, quakers, powdered quakers, twin spot ditto, clouded drabs, Hebrew characters—some of these last named were of an exceptionally dark form. Additionally, some half a dozen white marked (*G. leucographa*) came to the light. I had not observed these before, and this remark applies also to a couple of lead-coloured drabs (*O. populeti*).

Other moths which came under my observation for the first time in this place were the small elephant (*D. porcellus*), the lobster (*S. fagi*), the straw dot (*R. sericealis*). There were also a

few lappets (*G. quercifolia*) about—I saw none of these last in the three preceding years.

In August I captured a somewhat battered scarce silver Y (*P. interrogationis*). This moth does not appear in the only Herefordshire list that I possess; neither does it appear in the county list (1945) of Gloucestershire, so it is just possible that this may constitute a new county record.

Coming now to the autumn. This was somewhat disappointing. The numbers of red underwings, brindled greens and sallows of different species appeared to be well down.

I have not received any reports from other sources during the past year and in consequence I have only been able to base my remarks upon my own observations.

REPORT ON MAMMALS FOR 1954

including January and February, 1955.

By J. E. M. MELLOR

The PIGMY SHREW (*Sorex minutus minutus*). Three were recorded at the Weir, Kenchester; found by Mr. R. C. Parr in early February, 1955.

NATTERER'S BAT (*Myotis nattereri*). One was shot near Knill church on 27th July, 1954, by Dr. David Walker of Presteigne when with Dr. J. G. Harrison of Sevenoaks who was collecting for his brother, Dr. David Harrison, who is doing research on bats.

This is the second record of this bat in Herefordshire. The first was reported by Dr. C. W. Walker on 7th December, 1938. This observation was recorded twice, once as having been made in Three Elms road and again as in Moor Park road. In fact there was only one bat, caught by a cat and carried by it from one road to the other. Consequently a correction is needed to my note in the Centenary volume, pp. 98 and 99 the words "another was found in Moor Park Road in 1939" should be erased.

The GREY SQUIRREL (*Sciurus carolinensis*). Mr. I. Cohen reported getting a glimpse of an animal which he thought might have been a grey squirrel on Aylestone Hill, Hereford, which seemed to have dark bands around tail and body: another was reported from near Eardisley having a black line down the spine and black feet "like a fox". Mr. T. C. S. Morrison-Scott of the British Museum (Nat. Hist.) wrote on 25th August, 1954, that he had never heard of the rings round the body but that, if dark be read for blackish, the rest could be explained by the seasonal variation in coat colour. He enclosed a copy of a paper on the subject (published in the *Proc. Zool. Soc. London*, Vol. 121, pp. 773-775) the coloured plates of which, together with an explanation in type, form part of a temporary exhibit in the British Museum.

Dr. C. W. Walker wrote on the 26th November, 1954, that a forester, John Humphries, had seen, sometime in the summer of 1954, a grey squirrel attack a red squirrel, which was feeding in a roadway in Shobdon forest, and kill it instantaneously.

This is the only red squirrel I have heard of since the 1953 record included in my notes in the Centenary volume and I have seen none myself.

The DORMOUSE (*Muscardinus avellanarius*). There are few records of dormice having been seen in the county. On the 8th October, the *Hereford Times* printed a letter in which I showed that the presence of dormice could be determined by finding nuts which they had eaten. The dormouse makes a very characteristic round hole—almost always at or near the base of the nut which can very readily be distinguished from openings made by field mice, squirrels or nuthatches. To this letter no replies came from anyone in Herefordshire, but many, with collections of nuts, from all over England and one even from Austria. A second letter to the *Hereford Times* produced two letters from Miss M. Marklove, of Fownhope, enclosing hazelnuts which had been eaten by dormice in Fownhope and Woolhope.—November 14th and 9th respectively—and I have found such nuts in Bredwardine, around The Prospect and in the hedgerows between it and the bottom of the hill; some have been found in the vicarage garden. I have also found them in Mansel Lacy and Wellington and Mrs. Beach-Thomas sent me some very small wild-plum stones, which appear to have had their kernels eaten by dormice from Breinton Common.

The YELLOW-NECKED MOUSE (*Apodemus flavicollis wintoni*). An immature female was sent in from Pontrilas: Ewyas Harold's first record.

It has been the only species of mouse caught at The Prospect where three were taken in traps baited with cheese or whole-meal bread on their way to apples in the cellar, amongst which they had done some damage: two were found in a corn-bin in an out-house.

The POLECAT (*Mustela putorius putorius*). One was killed near poultry on Stockly Hill, Vowchurch, by Miss Powell in October.

The RABBIT (*Oryctolagus cuniculus cuniculus*). The outstanding event of the year has been the devastation caused among rabbits by myxomatosis which seems to have nearly cleared them out of most districts. It would now be interesting to have reports of any rabbits seen and whether hares have come into the rabbit-clear areas.

I do not think there need be any undue anxiety about the unhappy predators so suddenly deprived of a source of flesh. Nature always contrives a balance; adults in excess of the number capable of surviving without rabbit flesh will die off (two stoats were seen near the top of Dorstone Hill who looked thin and

seemed unable to move quickly); probably there will be smaller litters of mammals and fewer eggs or clutches laid by birds.

In a few places (Prospect, Bredwardine, Winforton, Poston, Vowchurch) a marked increase of blow-flies (*Calliphora sp.*) was observed during the summer. From the last, green-bottles (presumably *Lucilia sp.*) were reported. This may have been due to the large number of rabbit carcasses in the fields. No large increase is likely next summer as, if the first issuing broods are greater than usual, there will be little suitable material left on which to oviposit.

There is another point which may interest those who suffer from the attentions of the harvest-mite. It is the immature stage which irritates man: the adults were found a few years ago to live on the ears of rabbits. Unless they can find or have an alternative host we may expect less trouble of this sort. There has already been a great decrease of the rabbit flea.

ADDITIONS TO THE LIBRARY.

- | | |
|-----------|--|
| 504 | Lees (Edwin). The Affinities of plants with animals. 1834. |
| 506 | Woolhope Club. Transactions, 1886 to 1884. vols. Grang-
erized copies, with letters, extra illustrations, original draw-
ings, etc., etc. enlarged to 9 volumes. |
| *508.4247 | Lees (Edwin). Pictures of nature in the Silurian region around
the Malvern Hills. 1856. |
| *581.942 | Lees (Edwin). The Botanical looker-out among the wild-
flowers of England and Wales. 1851. |
| *81.94247 | Lees (Edwin). The Botany of the Malvern hills . . . with
geology [etc.] [1868]. 3rd ed. |
| 581.94247 | Lees (Edwin). The Botany of Worcestershire. 1867. |
| 634.1 | Hogg (Robert). The Apple and Pear as vintage fruits. Ed. by
H. G. Bull. 1886. |
| 726.5 | Cautley (H. Munro) Suffolk churches and their treasures. Col-
oured and other illus. 1954. (Marshall Collection). |
| *821.89 | Lees (Edwin). Scenery and thought in poetical pictures. 1880. |

* These volumes were inscribed presentation copies from the author to Dr. H. G. Bull; two have photographs of Lees.

BOOK REVIEW.

Photography for Archaeologists. By M. B. COOKSON; foreword by Sir Mortimer Wheeler. Max Parrish & Co. Price 15/-.

Now that so much archaeological excavation is taking place throughout the country, including our own county of Hereford, this book should be of the utmost value to those whose part it is to make photographic records of the work in progress, and to illustrate the positions of articles found on the sites. The fact that so famous an archaeologist as Sir Mortimer Wheeler has written the prefatory note is proof of the value of the advice given to photographers. He and the author have striven for a quarter of a century to record factually the archaeological evidence presented to the camera, in places as far apart as Dorset and Delhi.

There are twenty chapters devoted to apparatus ranging from miniature to stand camera, filters, scales, the processing of negatives, print making for special purposes, negative recording and storage. Other chapters are devoted to the special work of photographing various types of walls, earthworks, earth sections, stratification, and pavements. Photography in colour is also described, bringing the work quite up-to-date, and thus it is an important addition to the scientific archaeologist. No one engaged on excavations should be without a copy.

ERRATA

- P. xxiv, 4 lines from bottom *read* Huddington *not* Huddingham.
 P. xxix, 2nd line, *read* Newland, *not* Newchurch.
 P. 144, add S. H. Martin as author of report on coins.
 P. 146, in report on botany line 16 *read* foliata, *not* falcata.
 P. 147, in report on botany line 15, *read* epipactis *not* epipaetis.

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NOTE.—Copies of the second, enlarged edition of *Herefordshire Birds* by H. A. Gilbert and C. W. Walker are available, price 2/6, from the Hon. Secretary, the Woolhope Club, 267, Ledbury Road, Hereford.

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