

TRANSACTIONS

OF THE

WOOLHOPE NATURALISTS' FIELD CLUB,

HEREFORDSHIRE.

[ESTABLISHED 1851.]

VOLUME XXXIII. 1949, 1950 and 1951.

" HOPE ON"



"HOPE EVER"

PRINTED BY THE HEREFORD TIMES LTD

ISSUED 1952.



FOR THE GUIDANCE OF THOSE ABOUT TO MAKE A WILL

Form of Bequest of Legacy

"I give and bequeath to THE WOOLHOPE NATURALISTS' FIELD CLUB, THE CITY LIBRARY, HEREFORD, the sum of

pounds, for the general purposes of the said Club, for the purposes of archæological excavations, preservation of Herefordshire antiquities and the publication of records relating to the said county. And I direct that the said Legacy shall be free from duty, and payable primarily out of my personal estate, and that the receipt of the Hon. Treasurer and Hon. Secretary of the Club for the time being be sufficient discharge for the said legacy."

(NOTE.—When a Will has been made already, and it is afterwards desired to benefit the Club, it will be sufficient if the form below is filled up, detached, duly signed and witnessed in like manner as the Will itself, and carefully attached to the existing Will.)

"THIS IS A CODICIL to the last Will and Testament of me

dated

I give and bequeath to THE WOOLHOPE NATURALISTS' FIELD CLUB, THE CITY LIBRARY, HEREFORD, the sum of

free of Legacy Duty, to be payable primarily out of my personal Estate and applied for the general purposes of the said Club. In witness whereof I have hereunto set my hand this day

Signed by the said Testator as and for a Codicil to his last Will and Testament dated , in the presence of us both being present at the same time, who in his presence, and in the presence of each other, have hereunto subscribed our names as witnesses.

Signature of

TRANSACTIONS FOR THE YEARS 1949-1950-1951.

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Editorial Committee: —THE VEN. ARCHDEACON A. J. WINNING-TON-INGRAM, W. H. HOWSE, MAJOR A. E. W. SALT, F. C. MORGAN, with power to add to their number.

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Hon. Lanternist: -B. BUTCHER.

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WOOLHOPE NATURALISTS' FIELD CLUB.

PRESIDENTS FROM ITS ESTABLISHMENT IN 1851.

- 1851 Club formed in the winter months.
- 1852 Lingwood, Mr. R. M.
- 1853 Lewis, Rev. T. T.
- 1854 Symonds, Rev. Wm. S., B.A., F.G.S.
- 1855 Crouch, Rev. J. F., B.D.
- 1856 Wheatley, Mr. Hewitt.
- 1857 Lingen, Mr. Charles.
- 1858 Bevan, G. P., M.D.
- 1859 Bevan, G. P., M.D.
- 1860 Banks, Mr. R. W.
- 1861 Lightbody, Mr. Robert.
- 1862 Hoskyns, Mr. Chandos Wren.
- 1863 Hoskyns, Mr. Chandos Wren.
- 1864 Crouch, Rev. J. F., B.D.
- 1864 Clouch, Rev. J. F., 1
- 1865 Steele, Mr. Elmes Y.
- 1866 Bull, H. G., M.D.
- 1867 Hoskyns, Mr. Chandos Wren.
- 1868 McCullough, D. M., M.D.
- 1869 Rankin, Mr. James, M.A.
- 1870 Cooper-Key, Rev. H., M.A.
- 1871 Cam, Mr. Thomas.
- 1872 Steele, Mr. Elmes Y.
- 1873 Davies, Rev. James, M.A.
- 1874 Davies, Rev. James, M.A.
- 1875 Robinson, Rev. C. J., M.A.
- 1876 Chapman, T. A., M.D.
- 1877 Morris, J. Griffiths.
- ion brond, j. ondadio.
- 1878 Phillott, Rev. H. W., M.A.
- 1879 Armitage, Mr. Arthur.
- 880 Knight, Mr. J. H.
- 1881 Ley, Rev. Augustin, M.A.
- 1882 Blashill, Mr. Thomas, F.R.I.B.A.
- 1883 Piper, Mr. George H., F.G.S.
- 1884 Burrough, Rev. Charles, M.A.
- 1885 Martin, Mr. C. G.
- 1886 Piper, Mr. George H., F.G.S.
- 1887 Elliot, Rev. William, M.A.
- 1888 Elliot, Rev. William, M.A.

PRESIDENTS-Continued.

- 1889 Southall, Mr. H., F.R.Met.Soc.
- 1890 Croft, Sir Herbert, Bart., M.A.
- 1891 Cornewall, Rev. Sir George H., Bart., M.A.
- 1892 Barneby, Mr. William Henry.
- 1893 Lambert, Rev. Preb. William H., M.A.
- 1894 Davies, Mr. James.
- 1895 Watkins, Rev. M. G., M.A.
- 1896 Moore, Mr. H. Cecil, F.R.C.S., E.
- 1897 Moore, Mr. H. Cecil, F.R.C.S., E.
- 1898 Marshall, Rev. H. B. D., M.A.
- 1899 Beddoe, Mr. H. C.
- 1900 Leigh, The Very Rev. The Hon. J. W., D.D., Dean of Hereford.
- 1901 Blashill, Mr. Thomas, F.R.I.B.A., F.Z.S.
- 1902 Cornewall, Rev. Sir George H., Bart., M.A.
- 1903 Southall, Mr. H., F.R.Met.Soc.
- 1904 Hutchinson, Mr. T.
- 1905 Baylis, Mr. Phillip, M.A., LL.M., F.Z.S.
- 1906 Warner, Rev. R. Hyett, M.A.
- 1907 Rankin, Sir James, Bart., M.A.
- 1908 Moore, Mr. H. Cecil, and Rankin, Sir James, Bart., M.A.
- 1909 Williamson, Rev. Preb. H. Trevor, M.A.
- 1910 Farn, Mr. A. B.
- 1911 Phillips, Mr. E. Cambridge.
- 1912 Stooke-Vaughan, Rev. F. S., M.A.
- 1913 Watkins, Rev. S. Cornish, M.A.
- 1914 Watkins, Rev. S. Cornish, M.A.
- 1915 Wood, Mr. J. G., F.S.A.
- 1916 Jack, Mr. G. H., M.Inst.C.E., F.S.A., F.G.S.
- 1917 Grindley, Rev. H. E., M.A.
- 1918 Bannister, Rev. Canon A. T., M.A.
- 1919 Watkins, Mr. Alfred, F.R.P.S.
- 1920 Humfrys, Mr. W. J.
- 1921 James, Mr. Francis R.
- 1922 Marshall, Mr. George, F.S.A.
- 1923 Bradney, Colonel Sir Joseph A., Knt., C.B., M.A., D.Litt.
- 1924 Durham, Herbert E., D.Sc., M.B., B.Ch., F.R.C.S.(Eng.).
- 1925 Mackay, Mr. J. C.
- 1926 Scobie, Colonel M. J. G., C.B.
- 1927 Day, Rev. E. Hermitage, D.D., F.S.A.
- 1928 Symonds, Mr. Powell Biddulph.
- 1929 Smith, The Right Rev. Martin Linton, D.D., D.S.O., Lord Bishop of Hereford.

PRESIDENTS-Continued.

- 1930 Gilbert, Captain H. A.
- 1931 Symonds-Tayler, Lieut.-Colonel R. H.
- 1932 Swayne, Lieut.-Colonel O. R., D.S.O.
- 1933 Hamilton, Brig.-General W. G., C.B., C.S.I., D.S.O.
- 1934 Walker, C. W., M.C., M.D., Ch.B.
- 1935 Ellison, Captain F. B.
- 1936 Robinson, Mr. R. S. Gavin.
- 1937 Morgan, Mr. F. C., F.L.A.
- 1938 Bettington, Mr. E. J., F.R.S.A.
- 1939 Benn, Mr. C. A., O.B.E., M.A., F.G.S.
- 1940 Benn, Mr. C. A., O.B.E., M.A., F.G.S.
- 1941 Martin, Rev. Preb. S. H., M.A.
- 1942 Martin, Rev. Preb. S. H., M.A.
- 1943 Waterfield, The Very Rev. R., D.D., Dean of Hereford.
- 1944 Templer, Mr. P. J. T.
- 1945 Templer, Mr. P. J. T.
- 1946 Richardson, Mr. L., F.R.S.E., P.A.Inst.W.E., F.G.S.
- 1947 Winnington-Ingram, The Venerable Archdeacon A. J., M.A.
- 1948 Gilbert, Captain H. A.
- 1949 Wallis, Captain O. B., M.A., LL.B.
- 1950 Clarke, Rev. B. B., M.A., M.Sc.
- 1951 Morgan, Mr. F. C., F.S.A., F.L.A.

LIST OF MEMBERS

HONORARY MEMBERS (on the 31st December, 1951).

Gilbert, Capt. H. A., Bishopstone, Hereford.

Jack, G. H., M.Inst, C.E., F.R.I.B.A., F.S.A., 4, York Road, St. Albans, Herts.

Lovegrove, E. W., M.A., F.S.A., Common Hill Farm, Fownhope.

Morgan, F. C., F.S.A., F.L.A., 267, Upper Ledbury Road, Hereford.

Overbury, Thomas, F.R.I.B.A., F.S.A., Watercombe, Brimpsfield, Gloucester. Poulter, J., 17, Nelson Street, Hereford.

Richardson, L., F.R.S.E., F.G.S., 6, Hill View Road, Hanbury Park, Worcester.

Rowlands, O. W., F.R.E.S., Bronsil Hotel, Eastnor, Ledbury.

Stoker, Rev. C. H., The Flat, Oldfield, Barton Road, Tewkesbury.

The Editor of the Hereford Times, Maylord Street, Hereford.

Waterfield, The Very Rev. R., "Hereford", Swinley Road, Ascot.

ORDINARY MEMBERS 31st DECEMBER, 1951.

- 1919 Ainslie, Dr. W., Wargrave House, Hereford.
- 1943 Amies, S. M., 53, Lingen Avenue, Hereford.
- 1947 Andrews, A. B., Lower Lyde, Hereford.
- 1949 Andrews, P., Thinghill Grange, Hereford.
- 1951 Ap Ivor, Rev. C. B. A., The Vicarage, Much Dewchurch, Hereford.
- 1949 Ashby, J. F., 36, Broad Street, Ross-on-Wye.
- 1949 Atkinson, L., Lowood, Cofton Church Lane, Barnt Green, Worcester.
- 1949 Baillie, R. H., Wyche House, Kington, Hereford.
- 1933 Baily, R. E. H., O.B.E., Breinton Court, Hereford.
- 1951 Baker, R. H. G. (junior), Chadd's Leigh, 20, Ingestre Street, Hereford.
- 1945 Baker, R. H. Gordon, Whitwick, Canon Pyon Road, Holmer, Hereford.
- 1927 Ball, Edward, Oldfield House, Lyde, Hereford.
- 1931 Banks, R. A., Hergest Croft, Kington, Hereford.
- 1951 Barnett, F. S. G., Bryntirion, 87, Aylestone Hill, Hereford.
- 1917 Beattie, Rev. Preb. E. H., 24, Broomy Hill, Hereford.
- 1947 Beaumont, S. L., 2, Offa Street, Hereford.
- 1949 Beesley, D. W., 13, Norton Avenue, Putson, Hereford.
- 1949 Bell, S. P. E., 2, Castle Street, Hereford.
- 1944 Benjamin, Rev. S. M., The Vicarage, Stretton Grandison, Hereford.
- 1946 Benson, Rev. E. G., The Rectory, Presteigne.

- 1948 Bevan, The Ven. Archdeacon, H. H. M., Quatford Castle, Bridgnorth.
- 1939 Biggs, Herbert, Netherwood, Tupsley.
- 1925 Birmingham Public Reference Library, Birmingham 1.
- 1934 Birmingham University Library, Bristol Road, Birmingham.
- 1950 Blundstone, W. H., Lyndhurst Avenue, Hereford.
- 1948 Bois, C. H., Mathon Court, Worcester.
- 1949 Bolt, Brian H., Westwood, Hampton Park Road, Hereford.
- 1937 Bolt, Percy, Westwood, Hampton Park, Hereford.
- 1919 Bond, E. C., 4, Mead Road, Livermead, Torquay.
- 1933 Booth, C. E. T., 123, Whitecross Road, Hereford.
- 1951 Branstone, A. W., 9, Park Street, Hereford.
- 1946 Brecknell, C. J., 243, Upper Ledbury Road, Hereford.
- 1949 Brewin, J. L., M.Sc., The Grammar School, Ledbury.
- 1931 Bright, Captain G., Beech House, Luston, Leominster.
- 1949 British Mycological Society.
- 1940 Brook, J. A., Mullion, Breinton, Hereford.
- 1948 Brooks, K. G., M.A., Ashford House, Bodenham Road, Hereford.
- 1946 Bufton, W. R., Armadale, Hereford.
- 1947 Buisseret, Rev. H. G., Belmont Abbey, Hereford.
- 1926 Bulman, Dr. J. R., 20, Aylestone Hill, Hereford.
- 1944 Bulmer, Bertram, Little Breinton, Breinton, Hereford.
- 1926 Burnett, D., 10, Castle Street, Hereford.
- 1947 Burrows, The Very Rev. H. R., Dean of Hereford, The Dean's Lodging, Hereford.
- 1937 Butcher, Basil, 177, Upper Ledbury Road, Hereford.
- 1912 Butcher, G. H., O.B.E., Delamere, Bodenham Road, Hereford.
- 1948 Butcher, Major John T. D., Applecross, Ashfield, Ross-on-Wye.
- 1944 Cadbury, Christopher, Widemarsh Street, Hereford.
- 1945 Cadbury, George, Primrose Hill, Selly Oak, Birmingham 29.
- 1947 Campion, W., 37, Green Street, Hereford.
- 1951 Canning, Rev. A. B., The Vicarage, Lugwardine, Hereford.
- 1919 Capel, Major E. A., 36, Bridge Street, Hereford.
- 1948 Cater, H. R., St. Clair, Hergest Mill, Kington.
- 1948 Cave, W. J., The Hafod, Credenhill.
- 1939 Cawley, Right Hon. Baron, P.C., Berrington Hall, Leominster.
- 1951 Chandler, Dr. D. A., Bryntirion, Kingstone, Hereford.
- 1950 Chapple, F., Green Acres, Kingsthorne, Hereford.
- 1943 Charles, Rev. E., Wigmore Vicarage, Leominster.
- 1937 Charleton, P., 40, Garrick Close, Walton-on-Thames, Surrey.
- 1951 Cheney, J. E., 9, Redhill Avenue, Hereford.
- 1949 Chesterfield, Rt. Hon. the Earl of, Breinton House, Lower Breinton, Hereford.
- 1949 Chignell, Rev. W. R., Fownhope, Hereford.

- 1937 Christmas, C. J., 128, Hampton Dene Road, Hereford.
- 1946 Clarke, The Rev. B. B., M.A., M.Sc., Byford Rectory, Hereford.
- 1951 Clutterbuck, R. H., 34, Bodenham Road, Hereford.
- 1946 Cohen, I., Past Walney, Aylestone Hill, Hereford.
- 1951 Coker, J. A., 7, Hurstbourne Road, Forest Hill, London, S.E.23.
- 1951 Cole, R. J. H., Stone House, Sutton St. Nicholas, Hereford.
- 1950 Coleman, V. H., Broadlands, Eardisley, Hereford.
- 1948 Collins, J. G. F., Wye Cliffe, Breinton, Hereford.
- 1949 Combes, Major R. E., The Sladd, Putley, Hereford.
- 1947 Compton, P. B., Marsh Court, Bridge Sollers.
- 1935 Cooper, G. B., 9, King Street, Hereford.
- 1951 Cope, A. G., 12, St. James' Road, Hereford.
- 1951 Cope, E. H., 29, Lichfield Avenue, Hereford.
- 1946 Cope, W. G. A., 95, Ledbury Road, Hereford.
- 1951 Copland-Griffiths, Brig. F. A. V., D.S.O., Bircher Hall, Yarpole, Hereford.
- 1932 Cotterell, Sir Richard, Bart., Garnons, Hereford.
- 1951 Croft, Major O. G. S., Croft Castle, Hereford.
- 1937 Croker, L. F., Sunnyside, Folly Lane, Hereford.
- 1945 Cuddon, Frederick, 2, Carisbrooke, Thorneloe, Worcester.
- 1946 Dain, A. R., St. Hilda, Hafod Road, Hereford.
- 1951 Dale, Rev. J. C., Church House, Ledbury.
- 1949 Davenport, Major J. L., Yarsop House, Mansell Lacy, Hereford.
- 1943 Davies, Godfrey C., Wyeval Ltd., Broad Street, Hereford.
- 1926 Davies, H. J., Fernleigh, Bodenham Road, Hereford Acct 1954
- 1947 Davoll, F. Evan C., The Downs House, Ross-on-Wye.
- 1949 Dawson, W. G., 93, College Road, Hereford.
- 1951 Denison, W. A. R., 100, Hinton Road, Hereford.
- 1925 Donaldson, Rev. Canon A. E., The Almonry, Cathedral Close, Brecon.
- 1951 Dudley, D. R., Porscott, British Camp, Colwall.
- 1949 Duncan, A. R., 32, Mount Crescent, Tupsley, Hereford.
- 1951 Ealand, G. A., 5, St. Peter's Street, Hereford.
- 1951 Edwards, Rev. H. A., The Priory, Preston, Ledbury.
- 1948 Ellis, W. H., 85, Holme Lacy Road, Hereford.
- 1947 Eltome, G., Hawthorne House, Duxmere, Ross-on-Wye.
- 1944 Evans, C., 9, St. Owen Place, Hereford,
- 1949 Evans, C. C., 11, King's Acre Halt, Hereford.
- 1926 Farmer, W. G., St. Cuthberts, Hampton Park Road, Hereford.
- 1947 Farquharson, A., Le Play House, Ledbury.
- 1944 Feltham, T. B., Town Hall, Hereford.

- 1950 Ffrench, Col. Kyrle, Greystone House, Winforton, Hereford.
- 1938 Fixsen, H. M., "Gwynant," Hampton Park, Hereford.
- 1949 Fletcher, G. H., Noakes Cottage, Pontshill, Ross-on-Wye.
- 1947 Fletcher, R. J., 162, Ross Road, Hereford.
- 1937 Ford, R. A., Garth, Venn's Lane, Hereford.
- 1934 Franklin, C., Greentrees, St. Margaret's Road, Hereford.
- 1950 Franklin, Major J. H., Roseway, St. Leonards Road, Eastbourne.
- 1941 Gale, H. A., Copperbeeches, Callow, Hereford
- 1947 Gardiner, N. H., "Radnor", Breinton Road, Hereford.
- 1949 Gates, N. F. W., Canada.
- 1951 Genealogists Society of, Chaucer House, Malet Place, London, W.C.1.
- 1942 Geological Survey and Museum, Exhibition Road, South Kensington, London, S.W.7.
- 1941 Goodall, W. K., J.P., 7, Bulmer Avenue, Hereford.
- 1951 Gordon, G. J., Y.M.C.A., St. Owen Street, Hereford.
- 1941 Goss, Rev. A. J., St. John's Vicarage, Southend-on-Sea.
- 1947 Grainger, D. A. H., Whitton House, Nightingale Road, Rickmansworth, Herts.
- 1945 Grant, Sir Alan J., Rosehill, Lyonshall, Hereford.
- 1943 Green, Capt. Lionel H., The Whittern, Lyonshall, Kington, Herefordshire.
- 1931 Greenly, Major-General W. H., Titley Court, Herefordshire.
- 1936 Griffiths, A. H., Overdale, Three Elms Road, Hereford.
- 1945 Griffiths, J. W. B., Birtley House, Birtley, Bucknell, Salop.
- 1945 Grigg, Donald, Police Station, Kington, Hereford.
- 1902 Grindley, Rev. H. E., Kingsland, Milverton, Somerset.
- 1921 Gwillim, A. Ll., Hill Field, Putley, Ledbury.
- 1950 Hadfield, P. G. H., Bulls' Grove, Putley, Hereford.
- 1926 Hall, G. A., Hinton, Elm Road, Hereford.
- 1944 Hall, H. A., Brampton, 18, White Horse Street, Hereford.
- 1945 Hammonds, G. T. H., 38, Tower Road, Hereford.
- 1928 Harding, C. J., 67, Edgar Street, Hereford.
- 1942 Harris, H. J., Perivale, 70, Old Eign Hill, Hereford.
- 1951 Harris, L. J. R., 51, Bodenham Road, Hereford.
- 1951 Harris, L. A. K., 56, Beattie Avenue, Hereford.
- 1940 Haywood, Rev. H. W. J. L. R., Spreacombe Manor, Braunton, North Devon.
- 1947 Head, L. V., Wadworth Cottage, Upper Breinton, Hereford.
- 1948 Heath, A. F., Putley, Herefordshire.
- 1942 Hereford County Library, 29, Widemarsh Street, Hereford.
- 1951 Herefordshire Ornithological Club, c/o Mr. C. J. Brecknell, 243, Ledbury Road, Hereford.

- 1935 Higgins, T. H., 2, Prince Edward Road, Broomy Hill, Hereford.
- 1949 Higham, V., Moorside, Much Birch, Hereford.
- 1924 Hill, Rev. H. W., Prestbury Vicarage, Cheltenham.
- 1949 Hill, W. R., Westview, Ledbury.
- 1946 Hinde, P. W., M.A., The School, Lucton, Leominster.
- 1948 Hocking, F. T., 1, Bullingham Lane, Hereford.
- 1946 Hopewell, A. F. J., M.A., Cathedral School, Hereford.
- 1948 Hopton, Major O. C., Rookwood, Clyro, Hereford.
- 1945 Howse, W. H., Broadaxe Corner, Presteigne, Radnor.
- 1945 Hughes, D. J., Wyatt House, Cross Keys, Hereford.
- 1951 Hutton, Prof. J. H., The Old Rectory, New Radnor, Radnorshire.
- 1950 Inman, S. W., The Halt, King's Acre, Hereford.
- 1951 Iron, Air-Commodore Douglas, Crown Hotel, Hay, Hereford.
- 1949 Jackson, Lt.-Col. E. H. P., Yew Tree House, Wellington, Hereford.
- 1951 Jackson, J. N., 34, Aconbury Avenue, Hereford.
- 1948 James, D. W., Panson House, Putson.
- 1951 James, D. W., Glendale, 108, Bullingham Lane, Hereford.
- 1943 James, Philip Gwynne, High Croft, Hereford.
- 1945 Jarvis, Rev. F. R. C., Church Cottage, Stretton Sugwas, Hereford.
- 1951 Jenner, Col. H. N., M.B.E., 9, Southbank Road, Hereford.
- 1932 Jewell, C., 31, Marlpit Lane, Newton, Porthcawl, Glam.
- 1949 Jezzard, E. J., Robin Hill, Canon Pyon Road, Hereford.
- 1949 Johnson, Col. T. W. M., Green Farm, Hallwood Green, Dymock, Glos.
- 1926 Johnston, Alex., 21, Mount Crescent, Tupsley, Hereford.
- 1946 Jones, Rev. D. Brynmor, 17, Moor Farm Lane, Hereford.
- 1944 Jones, Rev. D. E., Tedstone Delamere, Bromyard.
- 1923 Jones, Rev. G. I. R., Bryn-y-Groes, Gresford, Wrexham.
- 1950 Jones, Rev. Griffith P., Little Marcle, Ledbury.
- 1935 Jones, G. S. Averay, Mavis Holt, Hampton Park Road, Hereford.
- 1943 Jones, Harold, Pencerrig, 38, Hafod Road, Hereford.
- 1946 Jones, J., Dynham Hall, Ludlow.
- 1950 Jones, R. St. John, 18, Widemarsh Street, Hereford.
- 1946 Jones, W. H., Bankside, Symonds Yat, Ross-on-Wye.
- 1942 Jordan, Rev. Canon J. H., Canon's House, Hereford.
- 1948 Kendrick, F. M., 40, Stanhope Street, Hereford.
- 1951 Kidderminster Public Library, Kidderminster.
- 1927 King, C. F., 29, Eign Street, Hereford.
- 1933 King, W. J., The Homestead, Kingsthorne, Hereford.
- 1946 Kington, A. W., 21, Tennal Grove, Harborne, Birmingham 3.
- 1933 Knight, L. A., Trinity House, 12, Baggallay Street, Hereford.

- 1951 Lambert, E. L., 52, Belmont Avenue, Hereford.
- 1947 Lane, A. C., Ferndale Road, Hereford.
- 1949 Lane, H. A., Oldcastle, Aylton, Hereford.
- 1939 Langdale-Smith, Dr. H. G., M.B., Ch.B., Tarrington, Hereford,
- 1935 Langford, Dr. A. W., 5, St. John Street, Hereford.
- 1944 Lawson, Rev. J. L., Ely Cathedral, Isle of Ely.
- 1946 Layton, Arnold W., Aconbury Court, Hereford.
- 1941 Lea-Wilson, Rev. C. A., Aniwa, Kirk Michael, Isle of Man.
- 1948 Leeds, Frank, M.A., Edenhurst, Ross-on-Wye.
- 1939 Leek, D. A., 2, Eleanor Crescent, Westlands, Newcastle-under-Lyme, Staffs.
- 1949 Levy, Dr. B. G. F., The Ferns, Bartestree, Hereford.
- 1946 Lewis, Rev. G. O., The Vicarage, Tupsley, Hereford.
- 1942 Lewis, W. J., Clifton Villa, 14, Harold Street, Hereford.
- 1949 Lloyd, D., 114, Ryelands Street, Hereford.
- 1944 Lloyd, G. H., 40, Park Street, Hereford.
- 1937 Lloyd, Sir John, M.C., Abercynrig, Brecon.
- 1943 Lloyd, R. W., The Grange, Bampton, Oxfordshire.
- 1948 Lloyd-Johnes, Herbert, Summerleas, Monmouth.
- 1948 Lock, C. B., The Garage, Allensmore.
- 1946 Lockett, E., 1, Moreland Avenue, Hereford.
- 1927 Loder-Symonds, Vice-Admiral F. P., C.M.G., R.N., Waldrist, Venns Lane, Hereford.
- 1946 Long, H. F., Tower Road, Hereford.
- 1950 Longworth, The Rt. Rev. T., D.D., Lord Bishop of Hereford, The Palace, Hereford.
- 1921 Lovesey, A., Grendon, 74, Belmont Road, Hereford.
- 1946 Lowe, David A., Glenview, 62, Hafod Road, Hereford.
- 1943 Lucas, A. V., The Hut, Three Elms Road, Hereford.
- 1949 Luffman, D., B.Sc., The Willows, King's Thorne, Hereford.
- 1948 Machin, F. S., Manor House, Burghill, Hereford.
- 1933 Maclaverty, C., Wessington Court, Woolhope, Hereford.
- 1939 Malkin, Dr. G. R., Fownhope, Hereford.
- 1947 Malson, C. G. W., "Highfield", 2, The Crescent, Tupsley, Hereford.
- 1949 Mann, A. L., Greenbank, 4, Penn Grove Road, Hereford.
- 1923 Mappin, W. H., Ynyshir Hall, Glandyfi, Cardiganshire.
- 1945 Marchant, C., Garnet, Hesselton, 29, Barton Road, Hereford.
- 1931 Marriott, A. W., Cantilupe House, Cantilupe Street, Hereford.
- 1927 Marriott, C. L., 23, St. Owen Street, Hereford.
- 1940 Marriott, F. G., 27, Grove Road, Hereford.
- 1946 Marriott, N., Cantilupe House, Cantilupe Street, Hereford.
- 1948 Marshall, C., The Manor House, Breinton.
- 1921 Marshall, G. H., The Manor House, Breinton, Hereford.

- 1914 Marshall, Major Thomas, Rowberrow Manor, Winscombe, Somerset.
- 1916 Marshall, Rev. W., The Grange, Sarnesfield, Weobley, Herefordshire.
- 1947 Martin, Rev. Canon E. V., 55, Grange Road, Woodthorpe, Nottingham.
- 949 Martin, Major G. V., 55, Grange Road, Woodthorpe, Nottingham.
- 936 Martin, Rev. Preb. S. H., 203, Hinton Road, Hereford.
- 1950 Matthews, E. K. W., 4, Folly Lane, Hereford.
- 1931 Matthews, J. W., Ragleth, 39, King's Acre Road, Hereford.
- 1911 Matthews, T. A., 6, King Street, Hereford.
- 1950 Maudslay, Rev. G. M., The Rectory, Pixley, Ledbury.
- 1936 Mellor, J. E. M., M.A., Prospect Cottage, Bredwardine, Hereford.
- 1948 Miller, R. C., 30, Church Road, Tupsley, Hereford.
- 1951 Milligan, T. V., The Vinery, 28, South Bank Road, Hereford.
- 1947 Milne, G. D., Terrace Hall, Woolhope, Hereford.
- 1935 Milne, Leonard, 29, Church Street, Hereford.
- 1944 Moir, Rev. A. L., F.R. Hist. Soc., Bridstow Vicarage, Ross-on-Wye.
- 1899 Money-Kyrle, Rev. C. L., Homme House, Much Marcle, Gloucester.
- 1948 Monkley, R. C., 16, Bridge Street, Hereford.
- 1949 Morgan, W. E., Wye Valley Motors, St. Martin's Street, Hereford.
- 1949 Morris, A. W., West Wilcroft, Bartestree, Hereford.
- 1937 Morris, E. H., 19, Lichfield Avenue, Hereford.
- 1946 Morris, L. G., 34, Ferndale Road, Hereford.
- 1930 Mumford, Captain W. C., M.C., Sugwas Court, Hereford.
- 1946 Munnings, F. W., Larport, Mordiford, Hereford.
- 1951 Murray, J. C., Bank House, Southend, Ledbury.
- 1949 Newport Public Libraries, Dock Street, Newport, Monmouth.
- 1933 Newton, Freeman, Beckington, 12, Moor Farm Lane, Hereford.
- 1947 Noller, W. H., Avalon, 133, London Road, Biggleswade, Bedfordshire.
- 1946 Norton, W. J., Mill Farm, Bromfield, Ludlow, Salop.
- 1951 Oakeley, J. E. E. E., Old Forge Cottage, Goodrich, Ross-on-Wye.
- 1943 Oakley, Ernest R., Bryngwyn, Much Dewchurch, Hereford.
- 1951 Oakley, Rev. J., Belmont Abbey, Hereford.
- 1947 Palmer, Rex, Prospect House, Canon Pyon Road, Hereford.
- 1947 Parker, L. S., Foley Cottage, Tarrington.
- 1927 Parker, Rev. Preb. T. H., Vineyard Croft, Hampton Park Road, Hereford.
- 1937 Parr, R. C., The New Weir, Kenchester, Hereford.
- 1944 Parry, Herbert, The Stowe, Whitney-on-Wye, Hereford.
- 1949 Parsons, Dr., Street House, Madley, Hereford.
- 1924 Peacock, G. H., c/o The Hereford Times Ltd., Hereford.
- 1926 Perkins, G. W., Bredon, Cusop, Hay-on-Wye.

- 1951 Perry, J. R. W., 145, Holme Lacy Road, Hereford.
- 1932 Perry, W. T., 23, King Street, Hereford.
- 1945 Phillips, C. H., Ladye Grove, Birley, Dilwyn, Hereford.
- 1948 Pickthorn, Chas., F.R.G.S., F.Am.G.G., B.Sc., 5, Wedderburn Road, Harrogate, Yorks.
- 1947 Pitt, S., Churchettes, Whitestone, Hereford.
- 1935 Pocock, Dr. R. W., 43, Exeter Road, Brondesbury, London, N.W.2.
- 1947 Polley, Brigadier S. T., Mansel Lacy, Hereford.
- 1951 Poole, F. F., Ufton Court, Holme Lacy, Hereford.
- 1911 1938 Powell, Rev. Prebendary G. H., Dorstone Rectory, Hereford.
- 1943 Powell, Herbert J., A.R.I.B.A., Royston, 338, Upper Ledbury Road, Hereford.
- 1937 Powell, Hubert J., King's Acre Halt, Hereford.
- 1922 Powell, J. J. S., Hall Court, Much Marcle, Herefordshire.
- 1950 Praill, A. C., Kingscroft, 145, King's Acre Road, Hereford.
- 1948 Praill, L. J., The Knoll, Tupsley, Hereford.
- 1948 Price, J. C., St. Mary's, Kingsland, Hereford
- 1938 Prichard, H. M., M.A., Barr's Court, Tarrington, Hereford.
- 1934 Pritchard, Percy, 194, Ross Road, Hereford.
- 1951 Proe, E., Bucknell Manor, Bromyard.
- 1949 Prosser, C. T. O., Vineyard Hill, Vineyard Road, Hereford.
- 1949 Public Record Office, Chancery Lane, London, W.C.2.
- 1935 Pugh, H., J.P., The Firs, Southbank Road, Hereford.
- 1908 Purchas, Rev. A. B., Prenton, Churchdown, Gloucester.
- 1949 Ravenscroft, C. D., Much Marcle, Ledbury.
- 1949 Read, Tracey J., 139, King's Acre Road, Hereford.
- 1949 Redmond, Rev. G., The Vicarage, Breinton, Hereford.
- 1944 Rennell of Rodd, The Rt. Honble. Lord, The Rodd, Presteigne, Radnorshire.
- 1950 Richards, Rev. Ivor J., The Vicarage, Cwmlin, Monmouth.
- 1945 Richards, Walter, 86, King's Acre Road, Hereford.
- 1950 Ridger, H. J., 22, Bodenham Road, Hereford.
- 1951 Roberts, C. F. G., 269, Ledbury Road, Hereford.
- 1932 Roberts, Rev. J. H., Canon Pyon Vicarage, Hereford.
- 1932 Robinson, R. S. Gavin, Poston House, Peterchurch, Hereford.
- 1931 Roderick, Rev. H., The Manse, Gorsley, Newent, Gloucester.
- 1943 Roiser, E. A., L.R.I.B.A., 12, Imperial Square, Cheltenham, Glos.
- 1927 Romilly, E. C., Tankard Walls, Bodenham, Hereford.
- 1937 Ross, J. H., The Mount, Leominster.
- 1948 Russell, G. W., "Crofton," 21, Tower Road, Hereford.
- 1939 Salt, Major A. E. W., M.A., Stawne, Weobley, Herefordshire.
- 1948 Sanders, J. G., 142, St. Owen Street, Hereford.

- 1948 Scudamore, F. H., Haywood Lodge, Belmont, Hereford.
- 1926 Secretan, S. D., Swayes, Rudgwick, Sussex.
- 1923 Simpson, C. W. T., 15, Commercial Street, Hereford.
- 1950 Sisson, Rev. R. B., The Rectory, Moccas, Hereford.
- 1951 Slatter, A. W., Cedar Lawns, 27, Aylestone Hill, Hereford.
- 1950 Smith, E. R., The Modern School, Kington, Hereford.
- 1938 Smith, J. P., Aylescroft, 95, College Road, Hereford.
- 1941 Snell, F. H., Castle Pool Hotel, Hereford.
- 1951 Society of Antiquaries, Burlington House, London, W.1.
- 1950 Sockett, A. L., 10, Beech Road, Monmouth.
- 1947 Stancer, C. H., "Upway", Canon Pyon Road, Hereford.
- 1950 Statham, C. H., Quarry House, Aylestone Hill, Hereford.
- 1947 Steel, T. O. D., 30, Castle Street, Hereford.
- 1949 Stewart, D., Whiteholme, Belmont, Hereford.
- 1947 Stickings, Rev. H. H., The Vicarage, Bullinghope, Hereford.
- 1951 Stockley, Rev. Preb. G. S., The Rectory, Ross-on-Wye.
- 1945 Sturgess, C. R. H., Town Well, Credenhill, Hereford.
- 1937 Styles, Philip, F.S.A., 15, Church Street, Warwick.
- 1949 Suter, E. J., 86, Eign Street, Hereford.
- 1950 Tavernor, Rev. W. S., The Vicarage, Leintwardine, Craven Arms, Salop.
- 1910 Taylor, S. R., Stockinghill, Newlands, Leominster.
- 1936 Templer, P. J. T., Rydal Mount, 37, Bodenham Road, Hereford.
- 1944 Thomas, Rev. Preb. A. D. Wynne-, The Warren, Bridstow, Ross-on-Wye.
- 1904 Thomas, E. D. Ridley, The Lawns, Nunnington, Hereford.
- 1950 Thomas, M. H., 19, Nelson Street, Hereford.
- 1947 Thomas, J. Roderick, Hillcrest, 87, Belmont Road, Hereford.
- 1928 Thomas, W. Ridley, The Lawns, Nunnington, near Hereford
- 1951 Thompson, A. H., The Hyde, Woolhope, Hereford.
- 1951 Thorn, H., Little Netherton, Dymock, Glos.
- 1946 Thorpe, W. A., 1, Edwards Square, London, W.8.
- 1951 Thurston, E. J., The Wain, Munstone, Hereford.
- 1949 Trafford, G., Turvey House, Holmer, Hereford.
- 1949 Turner, R. W., 19, Coldwell Road, Kingstone, Hereford.
- 1948 Turney, The Rev. F. I., B.A., R.D., The Rectory, Brampton Bryan Bucknell, Salop.
- 1951 University of London Library, Senate House, London, W.C.1.
- 1943 Vinden, W. A., 354, Upper Ledbury Road, Hereford.
- 1932 Virgo, R. G., The Poplars, Ewyas Harold, Hereford.

1931 Walker, Dr. C. W., M.C., Summerhayes, 14, Venn's Lane, Hereford.

1950 Walker, Dr. R. R., Warden Court, Presteigne, Radnor.

1930 Wallis, Captain O. B., M.A., LL.B., The Firs, Hampton Park, Hereford.

1948 Walter, R. J. K., Eignslowe, 4, Hampton Park Road, Hereford.

1951 Walters, E. A., F.L.S., F.R.H.S., Northwood, Presteigne, Radnor.

1949 Watkins, M. P., Agincourt Street, Monmouth.

1946 Watson, P. Lloyd, Church House, Norton, Radnorshire.

1949 Watts, Rev. H. T., The Vicarage, Sutton St. Nicholas, Hereford.

1949 Weedon, D. A. J., Bank House, Eaton Bishop, Hereford.

1945 Wheldon, E. J., White Cottage, Docklow, Leominster.

1948 White, R. Comley, Fair View, 18, Folly Lane, Hereford.

1948 White, Robert, "Crahmond," Hampton Park Road, Hereford.

1946 Whitfield, J. R., 36, Three Elms Road, Hereford.

1942 Whittal, Sidney J., Pantalls Farm, Sutton St. Nicholas, Hereford.

1944 Widgery, H. Slater, M.A., F.C.A., All Saints' Chambers, Hereford.

1932 Willans, J. B., F.S.A., Dolforgan, Kerry, Montgomeryshire.

1949 Wingate, C. J., Huntington House, Huntington, Hereford.

1923 Winnington-Ingram, The Ven. Archdeacon A. J., Cathedral Close, Hereford.

1950 Witts, K. J., 86, Highmore Street, Hereford.

1948 Wood, Arthur, "Mayfield," Henley Road, Ludlow.

1945 Wood, Arthur S., Lady Well House, Vowchurch, Hereford.

1951 Wood, E. R., 277, Upper Ledbury Road, Hereford.

1945 Worsey, J. D., Coghill, 1, Harold Street, Hereford.

1940 Wright, A. Shaw, Hereford County Libraries, Hereford.

1945 Wright, W. H., 2, The Grange, Leominster.

1941 Yeomans, T. Herbert, New Court, Lugwardine, Hereford.

1931 Zimmerman, A. U., The Vine, Tarrington, Hereford.

CORRESPONDING SOCIETIES.

Llandudno and District Field Club, Brinkburn, Llandudno.

Cotteswold Field Club, Public Library, Gloucester.

North Staffordshire Field Club, c/o Public Library, Hanley, Stoke-on Trent.

Caradoc and Severn Valley Field Club, 37, Castle Street, Shrewsbury.

Birmingham Archæological Society, Birmingham and Midland Institute, Paradise Street, Birmingham.

Geological Society of London, Burlington House, London, W.1.

The Cardiff Naturalists' Society, No. 2, Windsor Place, Cardiff.

Worcestershire Naturalists' Field Club, Victoria Institute, Worcester.

British Association for the Advancement of Science, Burlington House, London, W.1.

Essex Museum of Natural History (Museum of the Essex Field Club), Romford Road, Stratford, London, E.15.

Essex Archæological Society, The Museum, Colchester.

The Somersetshire Archæological and Natural History Society, Somerset County Museum, Taunton Castle, Taunton.

Cambridge and Huntingdonshire Archæological Society, c/o Dr. J. R. Garrood, Alconbury Hill, Huntingdon.

Carmarthenshire Antiquarian Society and Field Club, The Museum, Carmarthen.

Powysland Club, Reference Library, Welshpool.

Hertfordshire Natural History Society, University College, Gower Street, London, W.1.

Kent Archæological Society, The Museum, St. Faith, Maidstone.

The Swansea Scientific and Field Society—c/o Allan Stuart, Esq., F.G.S., University College, Swansea.

The Worcestershire Archæological Society—The Victoria Institute, Worcester.

The Malvern Field Club-Malvern.

Oxoniensia, Haverfield Library, Ashmolean Museum, Oxford.

Radnorshire Society, c/o T. P. Davies, Esq., J.P., Park Crescent, Llandrindod Wells.

Obituary.

1949.

E. Deacon.

Lt.-Col. R. H. Symonds-Tayler.

Lennox B. Lee.

N. H. Todd.

1950.

G. Marshall.

Rev. C. W. Stewart.

Rev. T. Holland.

S. A. Wright.

Preb. J. S. Jobling.

Rev. W. S. Daw.

Rev. A. S. Jones.

1951.

W. J. Jones.

C. E. Scott.

Sir Geoffrey Cornewall.

C. E. Brumwell.

N. L. Armitage.

G. M. Brierley.

E. A. Moir.

M. E. Ockey.

R. Gray.

E. J. Barnes.

P. G. Harvey.

RULES

(as amended at the Spring Annual Meeting, 13th April, 1950)

OF THE

Woolhope Maturalists' 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 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.

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 at the Annual Winter Meeting from among the Ordinary and Honorary Members of the Club. Each of such other members of Committee shall hold office for three years from the next Annual Spring Meeting (except when elected to fill a casual vacancy) and four of them shall retire each year but be eligible for re-election. Every candidate for election or re-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. If there shall be more valid nominations than vacancies there shall be election by ballot. In the event of a tie for the last vacancy the President or other 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, and 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 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.

V.—That the Annual Subscription be Twenty Shillings, payable on the 1st January in each year to the Treasurer or Assistant Secretary. Each Member may have the privilege of introducing a friend on any of the Field Days of the Club. One field day in each year shall be known as Ladies' Day, and on that occasion each member may bring a ady as a guest. The President shall have the privilege of choosing the place of one field day during his year of office, but such choice shall not be Ladies' Day.

VI.—That the Reports of the several meetings and the papers read to the Club during the year, be forwarded, at the discretion of the Central Committee, to the "Hereford Times" newspaper for publication as ordinary news in preparation for the Transactions of the Club.

VII.—That at each Field Meeting papers be read and 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.

VIII.—Every candidate for membership of the Club shall be proposed and seconded by members who are both personally acquainted with him. The Central Committee shall elect or reject the candidate and one black ball in five shall exclude.

IX.—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.

X.—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.

XI.—That any Member whose Annual Subscription is twelve months in arrear shall not be entitled to any of the rights and

XII.—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 XI.

XIII.—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.

XIV.—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 of by the Central Committee.

XV.—That these Rules be printed with the Transactions, for general distribution to the Members.

> Note.—Gentlemen only are eligible for membership of the Club, but members may bring lady friends to a meeting, when this is stated on the notice.

WOOLHOPE NATURALISTS' FIELD CLUB (HEREFORDSHIRE)

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T. TEMPLER,

WIDGERY,

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together with the General Reserve Account, Merrick Beque in accordance with the books, and vouchers of the Woolho AUDITOR'S CERTIFICATE.

Account, and Benn Bequest Account, and Naturalists' Field Club.

GENERAL RESERVE ACCOUNT

FOR THE YEAR ENDING 31ST DECEMBER, 1949.

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P. J. T. TEMPLER, Honorary Treasurer,

MERRICK BEQUEST ACCOUNT

FOR THE YEAR ENDING 31ST DECEMBER, 1949.

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P. J. T. TEMPLER, Honorary Treasurer.

BENN BEQUEST ACCOUNT

FOR THE YEAR ENDING 31ST DECEMBER, 1949.

f. s. d. 1949 PAYMENTS 2 14 3 31st Dec. By Book Purchased 31st Dec. , Balance at Bank

P. J. T. TEMPLER, Honorary Treasurer.

WOOLHOPE NATURALISTS' FIELD CLUB (HEREFORDSHIRE)

HONORARY TREASURER'S CASH ACCOUNT FOR THE YEAR TO 31ST DECEMBER, 1950.

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GENERAL RESERVE ACCOUNT

YEAR TO 31ST DECEMBER, 1950.

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I. TEMPLER,
Honorary Treasurer.

WOOLHOPE NATURALISTS' FIELD CLUB (HEREFORDSHIRE) HONORARY TREASURER'S CASH ACCOUNT FOR THE YEAR TO 31ST DECEMBER, 1951.

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To Balance, 1st January, 1951: Cash at Bank Cash in Hand a. Interest on £590 6s. 6d. 34 per cent. War Stock Broceeds of Sale of Transactions 1951 1951	" Donations	AUDITOR'S CERTIFICATE I have audited the above Honorary Treasurer's Account, together with the Genoral 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.	19th January, 1952. Hon. Auditor. P. T. TEMDIEP

GENERAL RESERVE ACCOUNT FOR THE YEAR ENDING 31ST DECEMBER, 1951.

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Woolhope Raturalists' Field Club.

(HEREFORDSHIRE)

PROCEEDINGS, 1949.

FIRST WINTER MEETING THURSDAY, 27th JANUARY, 1949.

LECTURE:

"THE OLD MARKET HALL, HEREFORD". By N. DRINKWATER, A.R.I.B.A.

Capt. H. A. Gilbert, President, in the chair, and there was a good attendance of members and visitors.

The following new member was proposed:—Mr. D. Parsons, Street House, Madley.

A letter complaining of hooliganism at the holy thorn, Orcop, on old Christmas Day and asking if the Club could do anything in this matter was received from the owner of the land. After a discussion it was suggested that the matter was really one for the police.

It was agreed that *Transactions* should be exchanged with The Nottingham Archæological Society.

The President said that Mr. Bromley had reported a polecat half a mile from Kington and that one had been trapped on the Wye at Bridge Sollers in November.

An instructive talk on the "Old Market House, Hereford", was then given by Mr. N. Drinkwater. This was illustrated by plans and lantern slides. It will be found printed on pp. 1 to 13.

SECOND WINTER MEETING TUESDAY, 8TH FEBRUARY, 1949.

LECTURE:

"Some Notes on Falconry." By J. E. M. Mellor.

Mr. P. J. T. Templer was in the chair, and there was a fair attendance.

The following new members were proposed:—Major J. L. Davenport, Yarsop House, Mansel Lacy; Mr. D. Lloyd, Ryelands Street, Hereford; and Mr. A. W. Morris, Clifford House, Portland Street, Hereford.

A letter from the County Council was read asking for a representative of the Woolhope Club to attend a meeting to consider the quarrying on the Great Doward Hill. Major A. E. W. Salt consented to act for the Club.

It was agreed that the Central Committee consider the designs for the proposed Information Kiosk in High Town.

An illustrated lecture entitled "Some Notes on Falconry" was then given by Mr. J. E. M. Mellor and was much appreciated. This is printed on pp. 14 to 18.

THIRD WINTER MEETING

TUESDAY, 22ND FEBRUARY, 1949.

Capt. H. A. Gilbert, President, was in the chair, and there was a good attendance of members and visitors.

The following new members were proposed:—Mr. J. L. Brewin, M.A., The Grammar School, Ledbury, and Lt.-Col. C. W. Dann, The Gables, Bodenham.

Major Salt reported that he had been to the Dowards to inspect the quarry there and had been asked to report to the County Planning Committee at their next meeting when the quarry Manager would be present.

The President reported that a bittern had been seen twice in February, 1949, on Staunton Common by the Rev. H. O. Grimes and Mr. Clarke of Dilwyn.

A talk entitled "The Military History of Herefordshire" was then given by Major A. E. W. Salt.

FOURTH WINTER MEETING TUESDAY, 8th March, 1949.

LECTURE:

"REGISTERS OF STOKE EDITH." By the Venerable Archdeacon A. J. WINNINGTON-INGRAM.

Capt. O. B. Wallis, President-Elect, was in the chair, and there was a good attendance of members and friends.

Major Salt reported that he had attended the County Planning Committee meeting with regard to the quarrying that was taking place on the Dowards. These activities, if allowed to proceed unchecked, would interfere with the remarkable flora of the district and also with the prehistoric remains on the hills. It had been agreed that the quarrying should stop at the boundary of the 100 acre stretch that Mr. C. Cadbury wished to schedule, also that the quarrying should be watched for remains and that after quarrying the ground be filled up and covered with soil.

A most interesting lecture entitled "The Registers of Stoke Edith" was given by the Ven. Archdeacon A. J. Winnington-Ingram and was very much appreciated by the members. This is printed on pp. 19 to 43. Three volumes dating from 1534 were shown by the courtesy of the Rev. C. A. Lea-Wilson.

SPRING ANNUAL MEETING.

THURSDAY, 7th APRIL, 1949.

Present:—Capt. H. A. Gilbert, President, Capt. O. B. Wallis, President-Elect, Messrs. P. J. T. Templer, E. H. Morris, I. Cohen, W. H. Howse, C. E. Brumwell, C. Evans, R. C. White, H. M. Prichard, A. W. Marriott, N. Marriott, W. J. Lewis, G. H. Marshall, A. Johnston, H. J. Davies, Hubert J. Powell, J. P. Smith, J. C. Price, R. A. Ford, Rex Palmer, G. W. Russell, C. H. Stancer, F. Croker, H. Biggs, J. G. F. Collins, F. Kendrick, K. G. Brooks, R. H. G. Baker, N. L. Armitage, E. M. Ockey, F. T. Hocking, G. H. Butcher, D. Lloyd, Dr. A. W. Langford, Major A. E. W. Salt, The Ven. Archdeacon A. J. Winnington-Ingram, the Rev. H. G. Buisseret, Preb. S. H. Martin, the Rev. A. L. Moir, Dr. C. W. Walker, the Rev. G. W. Stewart, Sir Allan Grant, the Rev. B. B. Clarke, the Rev. J. H. Roberts, the Rev. C. A. Lea-Wilson, Mr. Shaw Wright, Mr. F. C. Morgan (Hon. Secretary), and Mr. Herbert J. Powell (Assistant Secretary).

The Presidential address upon the preservation of the countryside was then given by Capt. H. A. Gilbert, after which the president-elect, Capt. O. B. Wallis, took the chair.

The new President thanked Capt. Gilbert on behalf of the Club for his services during the past year.

The Hon. Treasurer, Mr. P. J. T. Templer, presented the accounts for 1948.

The Assistant Secretary presented his report for 1948. At the end of the year there were fourteen Honorary Members, two hundred and eighty-five ordinary members and four Library members. This showed an increase in membership of sixteen over the previous year. During the year fourteen members had died, ten had resigned and one had been struck off the list for non-payment of subscription: forty-one new members were elected.

Mr. F. C. Morgan presented his annual report on archæology. (See p. 89)

The President, Capt. O. B. Wallis, read a short statement giving the facts concerning the building of the City Library and Museum. This will be found printed on pp. 86 to 87.

The following gentlemen were elected members of the Club:— The Rev. R. G. Hayden, Mr. H. A. Lane, Mr. R. H. Baillie, Major J. L. Davenport, Mr. D. Lloyd, Mr. A. W. Morris, Mr. D. Parsons, Mr. J. L. Brewin, Lt.-Col. C. W. Dann. The following were proposed for membership:—Mr. D. W. Beesley, the Rt. Hon. Lord Chesterfield, Mr. Tracey Reed, Mr. W. R. Hill.

It was decided to hold field meetings at Bridge Sollers, Monnington and district, and at Ystradfellte.

Mr. E. Ball sent his report on botany for the year 1948 and wrote asking to be relieved of this work because of pressure of business. Major A. E. W. Salt consented to act in his place.

The Hon. Secretary reported that it was hoped to register the Club as a Friendly Society and to ask members to covenant to pay seven years' subscription or for life whichever were the shorter. The Club would then benefit by the Income Tax rebate. Mr. H. M. Prichard had kindly consented to undertake this work for the Club.

Mr. W. H. Howse reported that during the course of alterations at the Castle Hotel, Presteigne, a calendar dated 1685 was discovered behind a wall,

FIRST FIELD MEETING. Tuesday, 17th May, 1949.

THE COTSWOLD COUNTRY.

Present :- Capt. O. B. Wallis, President, Messrs. A. B. Andrews, N. L. Armitage, P. Bolt, J. L. Brewin, K. G. Brooks, W. G. A. Cope, J. G. F. Collins, H. J. Davies, W. H. Ellis, G. E. Eltome, W. G. Farmer, R. A. Ford, C. J. Harding, A. F. Heath, T. H. Higgins, F. T. Hocking, W. H. Howse, A. Johnston, W. J. Jones, F. M. Kendrick, A. C. Lane, A. W. Layton, W. J. Lewis, A. W. Marriott, N. Marriott, C. L. Marriott, J. W. Matthews, E. A. Moir, E. M. Morris, N. H. Noller, E. M. Ockey, D. T. Perry, S. Pitt. Hubert J. Powell, H. M. Prichard, J. Sanders, F. H. Scudamore, J. P. Smith, F. H. Snell, C. H. Stancer, C. H. Sturgess, W. A. Vinden, R. J. R. Walker, R. C. White, A. U. Zimmerman, A. Wood, W. Ridley Thomas, E. D. Ridley Thomas, Rev. R. G. Hayden, Rev. D. Brynmor Jones, Rev. G. Ifor Jones, Rev. G. O. Lewis, Preb. S. H. Martin, Rev. A. L. Moir, Rev. J. H. Roberts, Mr. F. C. Morgan (Hon. Secretary), and Mr. H. J. Powell (Assistant Secretary).

Three motor coaches left Hereford and travelled via Cheltenham to Withington where by the kind permission of the owner, Major R. J. Gunther, an interesting Cotswold mansion was inspected.

The coaches then proceeded to Chedworth where the famous Roman Villa was inspected under the guidance of Mr. R. S. Gavin Robinson.

After lunch the party proceeded to Fairford Church where the interesting 15th century stained-glass windows were fully described by Professor O. L. Richmond, who was sincerely thanked by the President.

Proceeding to Cirencester the Roman remains in the museum were inspected, after which a journey was taken along the Fosse Way and Ermine Street to Thames Head. Unfortunately this had temporarily ceased to exist owing to the dry weather. At Birdlip tea was provided and the business of the Club was transacted.

The following gentlemen were elected Members of the Club:—Mr. D. W. Beesley, the Rt. Hon. Lord Chesterfield, Mr. T. Reid, and Mr. W. R. Hill.

The following new members were proposed:—Mr. E. J. Suter, Hereford, Mr. N. Gates, Hereford, Mr. L. Shaw, Hereford, and Col. T. W. H. Johnson, Dymock.

The Hon. Secretary read two letters, one from the agent for Guy's Hospital regretting that new trees could not be planted adjacent to the main road near Harewood End where a number had been felled as the soil was not deep enough. The second letter from Mr. W. H. Howse concerned a robins' nest which was built on a lorry. It stated that the lorry went journeys of varying lengths, and the birds awaited its return each day and resumed work of incubating the eggs.¹

After the meeting the President gave a short account of a journey he had made by water from Abingdon to Chepstow. The coaches then returned to Hereford.

SECOND FIELD MEETING. THURSDAY, 9TH JUNE, 1949.

THE ELAN VALLEY.

LADIES' DAY.

Present :- Capt. O. B. Wallis, President, Messrs. A. B. Andrews, N. L. Armitage, E. Ball, P. Bolt, G. Bright, I. Cohen, W. Cope, J. G. Collins, F. Cuddon, G. C. Davies, H. J. Davies, W. H. Ellis, C. Evans, R. A. Ford, W. G. Farmer, H. M. Fixsen, J. Griffiths, A. Ll. Gwillim, A. F. Heath, F. T. Hocking, A. Johnson, W. J. Jones, W. J. King, H. A. Lane, D. Leek, D. L. Lloyd, F. H. Long. E. Lovegrove, C. G. Marchant, A. W. Marriott, N. Marriott, J. W. Matthews, J. E. M. Mellor, R. C. Monkley, A. W. Morris, E. H. Morris, E. M. Ockey, W. T. Perry, S. Pitt, H. J. Powell, H. M. Prichard, T. Reed, W. Richards, F. H. Scudamore, W. Ridley Thomas, J. P. Venning, W. A. Vinden, R. J. R. Walter, R. C. White, Arthur Wood, A. S. Wood, J. D. Worsey, A. V. Zimmerman, the Rev. H. Bland, Rev. B. B. Clarke, Rev. G. O. Lewis, Rev. Canon E. V. Martin, Rev. Preb. S. H. Martin, Rev. A. L. Moir, Rev. C. L. Money Kyrle, Rev. J. H. Roberts, Major A. E. W. Salt, Mr. F. C. Morgan (Hon. Secretary), Mr. H. J. Powell (Assistant Secretary), and lady and gentlemen guests.

A large party left the City Library in four coaches and travelling via Kington and New Radnor made the first stop at Abbey-Cwm-Hir where, by permission of Lieut.-Colonel J. L. Philips, D.S.O., the ruins were inspected and a short description of them was given by the said gentleman.

Continuing along the mountain road or track to Rhayader a stop was made for a picnic lunch on high ground where magnificent views were obtained. The business of the Club was then transacted.

The following gentlemen were elected members of the Club:—Mr. E. J. Suter, Mr. N. Gates, Col. T. W. M. Johnson and Mr. L. Starr. The following were proposed for membership:—Mr. G. H. Fletcher, Hereford, Major R. E. Combe, Hereford, Mr. C. C. Evans, Hereford, Mr. J. F. Ashly, Ross-on-Wye, Mr. S. Bell, Hereford, Mr. P. Andrews, Hereford, and Mr. R. A. Topham, Hereford.

A short paper on the "Hanging Valleys of the Wye" by the Rev. H. E. Grindley was read by the Rev. B. B. Clarke.

¹ Unfortunately the eggs did not hatch, and therefore the problem of feeding the young did not arise.

Major Salt reported that the original agreement with regard to the Pembridge Market Hall and the owners of the New Inn had been referred to, and the Brewery Co. agreed that the Market Hall should be kept in good repair by them for the use of the village.

The journey then continued to Rhayader and beyond, half the party continuing up the Elan Valley to the top dam and the other half going to the Claerwen Valley, where, by permission of the General Manager and Secretary of the Birmingham Waterworks, Mr. A. E. Fordham, the new dam was seen in course of construction. Returning to Rhayader tea was then partaken prior to the return journey.

Returning through Builth and Hay the famous wild service tree¹ at Staunton-on-Wye was inspected and measured and the party returned to Hereford.

THIRD FIELD MEETING. THURSDAY, 21st JULY, 1949.

MOCCAS DISTRICT

Present: -Capt. O. B. Wallis, President, Messrs. N. L. Armitage, P. Bolt, G. H. Butcher, I. Cohen, J. G. F. Collins, H. J. Davies, W. H. Ellis, C. Evans, W. G. Farmer, C. J. Harding, T. H. Higgins, F. T. Hocking, A. Johnson, G. S. Averay Jones, F. M. Kendrick, A. W. Kington, W. J. Lewis, A. Lovesey, C. G. Marchant, A. W. Marriott, N. W. Marriott, J. W. Matthews, E. A. Moir, E. H. Morris, F. W. Munnings, S. Pitt, L. J. Praill, Hubert J. Powell, H. M. Prichard, W. Richards, T. J. Read, G. W. Russell, W. H. Howse, E. J. Suter, P. J. T. Templer, R. C. White, S. A. Wright, A. U. Zimmerman, J. D. Worsey, J. C. Price, C. H. Baillie, C. J. Christmas, R. H. G. Baker, W. J. Jones, C. Marshall, and George Marshall, Major A. E. W. Salt, Rev. S. M. Benjamin, Rev. B. B. Clarke, Rev. G. O. Lewis, Rev. Canon E. V. Martin, Rev. A. L. Moir, Rev. F. R. C. Jarvis, Col. T. W. M. Johnson, Dr. Langford, Mr. F. C. Morgan (Hon. Secretary), and Mr. H. J. Powell (Assistant Secretary).

Leaving Hereford at 10 a.m. the first stop was made at Bridge Sollers where Major A. E. W. Salt gave a short description of a section of Offa's Dyke to be seen there.

At Byford the Rev. B. B. Clarke described the glacial deposit upon which he lectured to the Club in 1948 and afterwards gave an interesting description of the church. Byford Court was visited by permission of Major C. Scott; and after a short walk Lower House was viewed externally.

The journey was continued to Monnington where the church was described by the Rev. A. Stanley Jones and afterwards John Abell's work in the Court was inspected by permission of Mr. H. S. Jay. Members then proceeded up Monnington Walk where lunch was eaten and the business of the Club was transacted under the famous Monnington oak.

The Hon. Secretary read a letter from the Hereford Rowing Club inviting thirty members of the Club to a river trip from Bridge Sollers to Hereford on Saturday, 13th August, 1949. Members wishing to accept the invitation were asked to give in their names not later than 3rd August.

¹ It was noticed that this tree was suffering from a heap of manure placed against the trunk. This has now been removed at the request of the Club. See Transactions 1930, p. 183.

¹ See pp. 44 to 47.

The Hon, Secretary read a letter from Mr. K. D. M. Dauncey asking for the help of any members in making an Archæological Survey of the County to be undertaken by the Birmingham University.

The following gentlemen were elected members of the Club:—Mr. G. H. Fletcher, Major R. E. Combe, Mr. J. F. Ashby, Mr. S. Bell, Mr. C. C. Evans, Mr. P. Andrews and Mr. R. A. Topham. The following new members were proposed:—Mr. N. W. Holloway, Hereford, the Rev. G. Redmond, Breinton, Mr. E. J. Jezzard, Hereford, Mr. C. T. O. Prosser, Hereford, Mr. Dawson, Hereford, Rev. A. Stanley Jones, Moccas, and Mr. Denis Luffman, Oxford.

Continuing the journey to Moccas Court members were met by Sir Geoffrey Cornewall, by whose permission the gardens were. inspected.

The next call was made at Moccas church where the Rector, the Rev. A. Stanley Jones, again acted as guide.

Leaving the Church the party divided, some going to see Sir Geoffrey's collection of early water colour drawings of the district by Thomas Hearne, others going to the "Deepwell" where is found much of the travertine of which some churches are built. The Rev. B. B. Clarke described this, and also spoke upon the formation of Brobury Scar. (See p. 48.)

Driving back through the park, "Park Pool" was passed and the journey was continued to Moorhampton where, after tea, the return ride was made to Hereford.

FOURTH FIELD MEETING. THURSDAY, 25TH AUGUST, 1949.

YSTRADFELLTE DISTRICT.

Present:—Capt. O. B. Wallis, President, Messrs. A. B. Andrews, P. Andrews, N. L. Armitage, J. F. Ashley, G. Baker, D. W. Beesley, I. Cohen, J. G. F. Collins, F. Cuddon, H. J. Davies, G. Davies, W. H. Ellis, G. H. Fletcher, C. J. Harding, R. Hill, T. Johnson, A. Johnson, W. J. Jones, A. V. Lucas, J. M. Kendrick, D. Lloyd, H. F. Long, D. Luffman, D. W. Marriott, N. Marriott, J. W. Matthews, T. A. Matthews, R. C. Monkley, E. M. Ockey, W. T. Perry, D. Parsons, S. Pitt, Hubert J. Powell, L. J. Praill, J. C. Price, H. M. Prichard, C. W. T. Simpson, C. H. Stancer, R. A. Topham, J. R. Venning, R. J. K. Walter, A. U. Zimmerman, J. W. Griffiths, W. J. Lewis, W. R. Thomas, P. Bolt, and C. G. Marchant, Rev. H. C. Buisseret, Rev. Canon J. H. Jordan, Dr. A. W. Langford, Rev. Canon E. V. Martin, Rev. Preb. S. H. Martin, Mr. F. C. Morgan (Hon. Secretary), and Mr. H. J. Powell (Assistant Secretary).

Departing from Hereford at 9.30 a.m. and travelling via Brecon, a halt was made at the Storey Arms where coffee was provided. Continuing across the mountains a visit was made to Mellte Castle where the members were addressed by the President and the Honorary Secretary.

The latter said that:

On the fork of two small streams Llia and Dringarth, which unite at its apex and form the Mellte river, is a castellet of whose history little is known, about which even local tradition has little to say. Only enough remains to give the outline of the walls. The builders took advantage of the steep ground worn down by the rivers on two sides of its triangle: on the land side it was defended by a ditch, the soil from it being thrown up to form a rampart on the inside or scarp. The ditch still holds water and is called "Scodlyn".

It was here that Edward I convened a conference of the Lords Marchers, perhaps in 1276. Llewellyn and the Welsh had been troublesome, after the King's return from the Crusade in 1274. In 1276 Llewellyn offered to ransome his affianced bride, who had fallen into the King's hands, but refused to restore lands he had taken or repair the castles he had destroyed and therefore the offer fell through. At this time Flint, Rhuddlan and other castles were built by Edward to defend the west country from the Welsh who again rebelled in 1282.

In the reign of Edward II, 1316, Llewelyn Bren led a rebellion and besieged the Lady de Clare in Caerphilly Castle until it was relieved by the Farl of Lancaster and John Giffard. Llewelyn surrendered at Ystradfellte, and later was drawn to a traitor's death at Cardiff.

The church had yew trees taller than itself, said to be 825 years old.

There were no families of opulence in the parish, but many respectable yeomen and freeholders. It gave birth to Sir David Williams and Willm Morgan, Attorney General for Wales temp. Charles I. The inhabitants, says Jones, were affected by the wildness of the scenery and preserved a great faith in hobgoblins and ghosts. The cry of the dogs of Anwn were as familiar as the watchman's rattle in Covent Garden.

Resuming the journey to the caves at Cwm Porth near Ystradfellte, members had lunch and then a short business meeting was held.

The following gentlemen were elected members of the Club:—Mr. N. J. Holloway, Rev. G. Redmond, Mr. E. G. Jezzard, Mr. C. T. O. Prosser, the Rev. A. Stanley Jones, and Mr. Denis Luffman. The following new members were proposed:—Mr. Douglas Stewart, Mr. Guy Trafford, the Rev. H. T. Watts, Mr. A. L. Mann, Mr. W. E. Morgan, and Mr. C. Wingate.

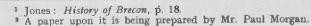
Mr. A. S. Wood of Vowchurch said a rate book of Madley dated 1817 which he had given to the President was given in the hope that a paper might be written for the Club.² He also sent a transcript of an early 'Tearear' (Terrier) of Turnastone.

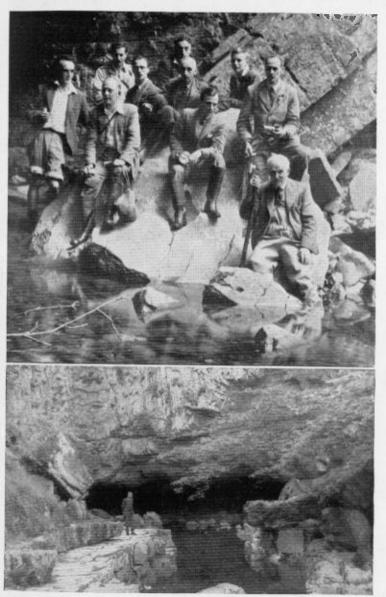
It was agreed that *Transactions* should be exchanged with the Surrey Archæological Society.

After the meeting the caves were inspected and a party of exploration was lead by the President (Capt. O. B. Wallis).

A party then walked to the falls of Clyn Gwyn after which the buses were met at the nearest point.

Continuing to Pont-neath-Vaughan the Silica mine in Sychnant Gorge was visited. The party then returned to the Storey Arms for tea and the return journey was made to Hereford via Brecon, Crickhowell and Abergavenny.





- THE CAVE AT CWM PORTH, NEAR YSTRADFELLTE:
 The subterranean party. Photograph by D. Luffman.
- 2. THE ENTRANCE TO THE CAVE. Photograph by J. Cohen.

FIRST AUTUMN MEETING. Thursday, 13th October, 1949.

LECTURES:

- 1. "REFLECTIONS ON ROADS AND BRIDGES IN HEREFORDSHIRE." By G. H. JACK, M.Inst.C.E., F.S.A.
- 2. "LUDLOW MISERICORDS." By F. C. MORGAN, F.S.A., F.L.A.

Capt. O. B. Wallis, President, was in the chair with a good attendance of members and visitors.

The following new members were proposed:—Mr. David A. D. Weedon, Bank House, Eaton Bishop; Major G. V. Martin, M.C., Wonder View, Much Birch; Rev. W. C. Chignell, Fownhope Vicarage; Lt.-Col. E. H. P. Jackson, Yew Tree House, Wellington; Dr. B. G. F. Levy, 'The Firs', Bartestree.

A letter was read from Mr. Hubert J. Powell regretting the felling of a fine beech tree in King's Acre road and asking if the Club would approach the responsible authorities about the matter. After discussion a resolution to the effect that the County Planning Authority be approached and asked if the trees were scheduled and if not what could be done to prevent the felling of a variety of other trees nearby was proposed by Mr. I. Cohen, seconded by Mr. E. H. Morris and carried unanimously.

Major A. E. W. Salt said that some Roman ornaments displayed at the meeting were found at Lyonshall. They were at the service of the Club and could be sent away for identification.

An interesting paper, "Reflections on Roads and Bridges in Herefordshire" by Mr. G. H. Jack was read by the President (Capt. O. B. Wallis). This is printed on pp. 49 to 54.

Lantern slides of Ludlow Misericords, photographed by the Hon. Secretary, Mr. F. C. Morgan, were then described by him.

Both the paper and the slides evoked interesting discussions.

SECOND AUTUMN MEETING. Tuesday, 25th October, 1949.

LECTURE:

"Some Aspects of the Medieval Manor in Herefordshire."
By Mr. A. J. Roderick, M.A., Ph.D.

Capt. O. B. Wallis, President, presided over a good attendance of members and visitors.

The following new member was proposed:—Mr. V. Higham, Moorside, Much Birch, Hereford.

A letter from the Clerk to the Council with regard to the trees in King's Acre road was read. It stated that no Tree Preservation Order had yet been made by the County Planning Committee but that the letter from the Woolhope Club protesting at the felling of a tree at King's Acre would be brought before the Committee. A letter from the University College of North Wales, Bangor, was read asking for any records of the occurrence in Herefordshire of Epilobium pedunculare, a willow herb from New Zealand, which had been found in Shropshire. A letter from the Chief Inspector of Ancient Monuments, in reply to a letter from the Honorary Secretary concerning the Old Grammar School, Weobley, stated that the building appeared to be worthy of preservation and certainly should not be demolished.

The Hon. Secretary mentioned that some human remains were unearthed at Ashgrove, near Sutton Walls, during the war, and read the following report from the University Museum, Oxford, to the Curator of Hereford Museum, stating that the bones were probably Saxon. This confirmed the belief of Mr. George Marshall who had expressed the same opinion when the bones were found.

Anthropology Laboratory,
Department of Human Anatomy,
University Museum,
OXFORD.
24th October, 1949.

I have examined the relevant parts of the human remains from Ashgrove, and have arrived at the following tentative conclusions. More definite results are not possible in view of the fragmentary nature of the material.

The bones are probably those of a young adult female. Their dating remains dubious, but the femur exhibits a considerable degree of platymeria, a condition frequently found in Saxon remains. Metrically and morphologically such evidence as the skull can provide agrees with such a dating. It is possible, however, that the remains may be a little earlier, of Iron Age date.

Yours sincerely,

D. F. ROBERTS.

A paper entitled "Some Aspects of the Manor in Medieval Herefordshire" was read by Mr. A. J. Roderick (See pp. 55 to 67), and after discussion the meeting closed.

THIRD AUTUMN MEETING. THURSDAY, 10TH NOVEMBER, 1949.

Capt. O. B. Wallis, President, in the chair with a good attendance of members,

The Hon. Secretary said that the County Planning Committee were making full inquiries into the question of tree felling in King's Acre Road and the whole matter was under consideration.

The Hon. Secretary exhibited a small cast figure that had been found below ground on the site of the new Telephone Exchange. It was thought that the figure might be from the top of a gate post and date from the late 18th century.

An extremely interesting paper entitled "The Lost Brass of the Cantilupe Shrine" was read by the Rev. E. G. Benson, M.A. It was agreed that this paper, the result of much patient research and investigation, was a valuable addition to the *Transactions*. It evoked some interesting discussion. It is printed on pp. 68 to 76.

FOURTH AUTUMN MEETING. Thursday, 24th November, 1949.

LECTURE:

"THE CARVINGS OF THE LADY CHAPEL, HEREFORD." By F. C. MORGAN, F.S.A., F.L.A.

Capt. O. B. Wallis, President, was in the chair and many members and visitors were present.

The Hon. Secretary reported that the paper read at the last meeting by the Rev. E. G. Benson on "The Lost Brass of the Cantilupe Shrine" would be printed in the *Transactions* of the Monumental Brass Society, and asked if members wished it to be printed in the Woolhope *Transactions* also. It was agreed that the paper should be printed by the Club if no objection was raised by the Monumental Brass Society or the author.

The following new members were proposed:—Mr. M. P. Watkins, Agincourt Street, Monmouth, Mr. Peter Cooke, Bartestree Court, Hereford, and Mr. R. W. Turner, Kingstone, Hereford.

The President reported on a meeting held by the Birmingham University on 22nd November with regard to the Archæological Survey of Herefordshire and asked for helpers to fill up special forms provided.

The Hon. Secretary, Mr. F. C. Morgan, then gave a talk on the "Carvings of the Lady Chapel, Hereford Cathedral", illustrated with many slides from photographs taken by himself mainly from the scaffolding erected for limewashing the vaulting of the chapel in the spring of this year.

The hope was expressed that the photographs be reproduced in the *Transactions*.

WINTER ANNUAL MEETING. THURSDAY, 15th December, 1949.

Present: - Captain O. B. Wallis, President: the Rev. B. B. Clarke, Messrs. R. C. White, J. E. M. Mellor, J. W. Matthews, W. J. Lewis, I. Cohen, G. H. Fletcher, A. F. Heath, E. H. Morris, G. H. Butcher, C. Evans, W. H. Ellis, W. G. Farmer, H. J. Davies, H. M. Prichard, L. S. Parker, A. U. Zimmerman, J. D. Worsey, A. W. Marriott, N. W. Marriott, R. A. Ford, B. Butcher, W. J. King, F. T. Hocking, Rex Palmer, Hubert I. Powell, R. H. Baily, Alex Johnston, W. G. Dawson, H. Lloyd-Johnes, G. Bright, C. H. Stancer, C. Marshall, H. Marshall, N. L. Armitage, H. Biggs, F. M. Kendrick, W. T. Perry, P. J. T. Templer, C. E. Brumwell, J. G. F. Collins, Major A. E. W. Salt, Major R. E. Combe, Dr. G. W. Walker, the Rev. H. G. Buisseret, the Rev. Preb. S. H. Martin, Col. T. W. M. Johnson, Dr. A. W. Langford, the Rev. G. W. Stewart, the Rev. J. M. Roberts, the Rev. R. G. Hayden, Dr. J. R. Bulman, Dr. H. G. Langdale-Smith, Mr. F. C. Morgan (Hon. Secretary), and Mr. H. J. Powell (Assistant Secretary).

The President announced with regret the passing of Mr. Lennox Lee, who had been a member of the Club for thirty years, and the members stood in silence as a token of respect.

Apologies for absence were received from the Very Rev. the Dean of Hereford, The Very Rev. Dean R. Waterfield, the Rev. A. L. Moir, Mr. Willans, Mr. T. H. Yeomans, Mr. C. Cadbury, Mr. C. Sturgess, Mr. G. W. Russell, the Rev. Canon E. V. Martin and Mr. George Marshall. It was agreed to send good will messages to Dean Waterfield and Mr. George Marshall.

The Minutes of the Spring Annual Meeting of Thursday, 7th April, 1949, were read and confirmed.

The Hon. Secretary read a letter from Mr. J. Bosley of Bosbury suggesting the recovery of a meteorite which fell near Bosbury on 21st October, 1900, at 8.35 p.m. Dr. Walker proposed that the matter should be referred to the Royal Astronomical Society. Mr. C. H. Sturgess wrote asking if the dates of meetings could be circulated at the beginning of the year but it was felt that this would not be practicable.

The Hon. Secretary reported that Mr. Daniels had asked for volunteers to help in the excavating of a glass works at Treago, St. Weonards.

On the proposition of the Hon. Secretary, seconded by Preb. S. H. Martin, the Rev. B. B. Clarke was elected President for the coming year. The following officers were elected for the year 1950:—

Vice-Presidents: Captain O. B. Wallis, the Ven. Archdeacon
A. J. Winnington-Ingram, Mr. G. H. Butcher, and Major A. E. W.
Salt. Central Committee: Messrs. H. M. Prichard, G. Bright,
R. C. White, J. E. M. Mellor, Dr. C. W. Walker, Dr. A. W. Langford,
The Right Hon. Lord Rennell, Preb. S. H. Martin, Dr. H. G. LangdaleSmith and Col. O. C. Hopton. Editorial Committee: Messrs.
G. Marshall, W. H. Howse, Captain O. B. Wallis, and the Hon.
Secretary. Hon. Treasurer: Mr. P. J. T. Templer. Hon. Auditor:
Mr. H. S. Widgery. Hon. Secretary: Mr. F. C. Morgan. Assistant
Secretary: Mr. H. J. Powell. Hon. Librarian: Mr. F. C. Morgan.
Hon. Lanternist: Mr. Basil Butcher. Delegate to the Society of
Antiquaries: Mr. F. C. Morgan. Sectional Editors:—Ornithology:
Captain H. A. Gilbert and Dr. C. W. Walker. Botany: Major
A. E. W. Salt. Geology: Rev. B. B. Clarke. Archæology: Mr.

It was decided to hold two field meetings, in Kempley district and Lingen district respectively, during 1950.

H. J. Powell.

The following gentlemen were elected members of the Club:—Mr. Douglas Stewart, Mr. Guy Trafford, Rev. H. T. Watts, Mr. A. L. Mann, Mr. B. H. Bolt, Mr. W. E. Morgan, Mr. C. Wingate, Mr. D. A. J. Weedon, Major G. V. Martin, M.C., the Rev. W. R. Chignell, Lt.-Col. E. H. P. Jackson, Dr. B. G. F. Levy, Mr. V. Higham, Mr. C. D. Ravenscroft, Mr. M. P. Watkins, Mr. Peter Cooke, Mr. R. W. Turner, Mr. L. Atkinson, Rev. A. Goode, and Mr. A. R. Duncan.

The following new members were proposed:—Mr. M. H. Thomas, 19, Nelson Street, Hereford, and Dr. R. P. Walker, Warden Court, Presteign.

The Annual Report on Ornithology by Captain H. A. Gilbert and Dr. C. W. Walker was read by Dr. Walker. (See pp. 93-95.) The Annual Report on Botany was read by Major A. E. W. Salt. See p. 92.

Mr. R. A. Ford reported that a trench had been dug near the wild service tree at Staunton-on-Wye which was likely to cause injury to it. Major Salt volunteered to call on the owner.

The President gave notice that at the Spring Annual Meeting he would propose certain alterations in the Club Rules concerning the admission of members and the election of the Committee.

The President reported on his negotiations with the Library Committee with reference to a proposed agreement with the City Council on the use of the Woolhope Club Room. The Library Committee had admitted the claim of the Club, but had been overruled by the Council. In view of the Council's wish to have prior use of the room, it was proposed by Mr. P. J. T. Templer and seconded by Mr. C. E. Brumwell and carried that Counsel's opinion should be taken on the matter as suggested by the President.

A stone axe, a striped hawk moth, and a bone fossil, sent by Mr. D. Grigg, were exhibited by the Hon. Secretary.

Mr. Geoffrey Bright gave to the Club a Poll List for 1722, the earliest known relating to the county. It is the third known example only of printing by W. Parks, the first Herefordshire printer. It is also of great value as it forms a directory of all the electors in Herefordshire at this period.

Woolhope Naturalists' Field Club.

(HEREFORDSHIRE)

PROCEEDINGS, 1950.

FIRST WINTER MEETING THURSDAY, 26TH JANUARY, 1950.

LECTURE:

"THE GEOLOGY OF GARNONS HILL AND SOME OBSERVATIONS ON THE FORMATION OF THE DOWNTONIAN ROCKS OF HEREFORDSHIRE."
By The Revd. B. B. Clarke, M.A., M.Sc.

Capt. O. B. Wallis, President, was in the chair, and a good number of members and visitors were present.

Apologies for absence were received from Mr. P. J. T. Templer and the Revd. H. T. Watts.

The Minutes of the fourth Autumn Meeting of the 24th November, 1949, were read and confirmed.

The Hon. Secretary reported that the Monumental Brass Society and the Revd. E. G. Benson had no objection to the paper on the "Lost Brass of the Cantilupe Shrine" being printed in the Transactions.

Capt. G. Bright said that he had another Poll List for 1818 which he had brought with him.

The Revd. H. G. Buisseret wrote asking if any member knew the origin of the Woolhope Club badge.

The following new members were proposed:—Lt.-Col. K. Ffrench, Greystone House, Winforton; Mr. K. J. Witts, 11 Ferndale Road, Hereford; and Mr. W. H. Blunderstone, Lyndhurst Avenue, Hereford.

Major A. E. W. Salt reported that a satisfactory conclusion had been arrived at with regard to the quarrying at the Dowards. The boundary suggested by Major Salt and Mr. Christopher Cadbury between the land for quarrying and for preservation had been agreed.

A most interesting paper entitled "The Geology of Garnons Hill and some observations on the formation of the Downtonian Rocks of Herefordshire" was then read by the Revd. B. B. Clarke, M.A., M.Sc.

This is printed on pp. 97-111.

SECOND SPRING MEETING THURSDAY, 9TH FEBRUARY, 1950.

LECTURE:

"A MUTUAL INSURANCE SOCIETY TO EASE THE BURDEN AND EXPENSE OF SHERIFFS 1729." By GEORGE MARSHALL, F.S.A.

Capt. O. B. Wallis, President, in the chair, and a good number of members and visitors were present.

The Minutes of the first Spring Meeting of 26th January, 1950, were read and confirmed.

The following new member was proposed:—The Revd. R. B. Sisson, Hentland Vicarage, Ross-on-Wye.

A paper entitled "A Mutual Insurance Society to Ease the Burden and Expense of Sheriffs 1729" by Mr. George Marshall, F.S.A., was read by the President. This is printed on pp. 77–85.

The Hon. Secretary then read some notes he had made on the Poll List of 1722 which had been given to the Club by Capt. G. Bright.

THIRD SPRING MEETING THURSDAY, 2ND MARCH, 1950.

LECTURE:

"EARLY MAN IN NORFOLK." By R. S. GAVIN ROBINSON.

Capt. O. B. Wallis, President, in the chair, and many members and visitors.

The Minutes of the second Spring Meeting of 9th February, 1950, were read and confirmed.

The Hon. Secretary asked for a volunteer who would make reports and digests of papers for the British Association. The Revd. B. B. Clarke offered to do this work.

Dr. C. W. Walker reported that the West Wales Field Society had formed a Society for the preservation of the kite in Carmarthenshire and would appreciate a donation from the Club. Dr. Walker proposed a sum of £5 0s. 0d. should be given and this was seconded by Mr. J. E. M. Mellor and carried.

A paper with lantern illustrations entitled "Early Man in Norfolk" was given by Mr. R. S. Gavin Robinson.

FOURTH SPRING MEETING THURSDAY, 23RD MARCH, 1950.

LECTURE:

"RECENT PREHISTORIC FINDS AT CRASWALL." By R. S. GAVIN ROBINSON.

Capt. O. B. Wallis, President, in the chair, and many members and visitors.

The Minutes of the third Spring Meeting of 2nd March, 1950, were read and confirmed.

A paper with lantern illustrations entitled "Recent Prehistoric Finds at Craswall" was given by Mr. R. S. Gavin Robinson. During the discussion which took place afterwards, Miss L. Chitty, F.S.A., made some interesting comments on the lecture and axes exhibited, and the Revd. B. B. Clarke gave an opinion on the two axes from their geological point of view. This paper is printed on pp. 112—117.

Mr. Basil Butcher reported that Mr. Donovan Wilson could supply six keen Scouts to do any excavating at week ends.

FIFTH SPRING MEETING THURSDAY, 30TH MARCH, 1950.

LECTURE:

"An Early 19th Century Survey of Madley," By Paul Morgan, B.A.

Capt. O. B. Wallis, President, in the chair, and members and visitors.

The Minutes of the fourth Spring Meeting of 23rd March, 1950, were read and confirmed.

The following new members were proposed:—Major Lewis Stanisford, Hagley Court, Bartestree; and Mr. C. B. Colman, Broadlands, Eardisley.

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

Mr. W. H. Howse sent a cutting from the Radnor Times for 18th March, 1950, which stated that a Pole Cat and a Badger had been seen fighting near Builth Wells. Mr. Ockey reported seeing two rabbits chasing a stoat.

Mr. Paul Morgan then read a paper on "An Early 19th Century Survey of Madley". This is printed on pp. 118—125.

Afterwards Mr. F. C. Morgan displayed the slides he had taken of the carving and bosses of the choir vaulting of Hereford Cathedral.

SPRING ANNUAL MEETING THURSDAY, 13TH APRIL, 1950.

Present:—Capt. O. B. Wallis, President, in the chair, The Revd. B. B. Clarke, President-Elect, Messrs. G. H. Fletcher, I. Cohen, W. J. Lewis, A. W. Marriott, H. M. Prichard, L. S. Parker, G. H. Butcher, E. H. Morris, J. F. Ashby, D. Lloyd, C. T. O. Prosser, H. J. Powell, Rex Palmer, D. A. J. Weedon, H. J. Davies, A. Johnston, J. P. Smith, W. G. Dawson, E. A. Moir, A. F. Heath, J. D. Worsey, C. Marshall, G. H. Marshall, R. A. Baillie, N. L. Armitage, F. Croker, H. Biggs, F. T. Hocking, C. J. Harding, W. H. Ellis, F. M. Kendrick, W. H. Howse, S. Bell, P. J. T. Templer, Dr. C. W. Walker, the Revd. G. Ifor R. Jones, the Revd. H. G. Buisseret, Col. T. W. M. Johnson, Mr. A. L. Mann, Lt.-Col. E. H. P. Jackson, the Revd. G. O. Lewis, the Revd. Preb. S. H. Martin, the Revd. A. Goode, the Very Revd. the Dean of Hereford, Mr. F. C. Morgan (Hon. Secretary), and Mr. H. J. Powell (Assistant Secretary).

The Minutes of the Winter Annual Meeting of 15th December, 1949, were read and confirmed.

Apologies for absence were received from Capt. H. A. Gilbert, Mr. A. V. Zimmerman, Major A. E. W. Salt, Mr. C. Cadbury, the Ven. Archdeacon A. J. Winnington-Ingram, Mr. F. Leeds, Sir G. Cornewall, Mr. R. C. White, Mr. C. Evans, and the Revd. Canon E. V. Martin.

Capt. O. B. Wallis then delivered his Presidential Address:

PRESIDENTIAL ADDRESS.

The diligent student of the Club Transactions will find that by our first rules the President was to be "requested to favour the Club with an address containing a written summary of its proceedings at the several Field Meetings during the previous year, together with such observations from himself" as he might "deem conducive to the welfare of the Club and the promotion of its objects", a phrase almost worthy of Dr. Samuel Johnson.

Members today might hardly welcome such a summary of the year's proceedings, for these will be duly recorded in the Transactions.

The original rule no doubt sprang from the fact that the regular publication of *Transactions* was not undertaken for fourteen years; and the founders of the Club might have been agreeably surprised and impressed by the noble array of volumes which has been gradually built up.

In modern times it is not expected of the President that he will act as the year's reporter, but rather that he will enlarge upon his particular hobby or enterprise and if possible convey some information not hitherto recorded.

The interests of the Club range from grave, it may be hoped to gay, even if not from lively to severe. Much research into archives and elucidation of records has been done by our more learned members, and such work has gone far to render the *Transactions* the mine of history which they are.

Architectural and archæological investigation has long been ably carried out and recorded, and our ornithological and botanical members, our experts in butterflies and beetles, and our naturalists in general keep us informed of what goes on in the wild life of the county.

One whose days are perforce spent in the reading and making of documents may well turn from them and take a particular pleasure in the field work of the Club, and in that exploration of Herefordshire and its surroundings for which there is always scope and reward.

The present speaker must leave it to the geologists to expound the causes of much that lies around us, and in our incoming President we shall have one well qualified to do this.

Today you are asked to hear something of the streams and rivers which intersect the county, bringing water to man and beast and fertility to the land, and contributing not a little to the beauty of this region. Of that beauty the Poet Laureate, a son of the county, has said that his ideas of heaven are framed upon it, and we humbler folk may well say "Amen".

It is not my intention to inflict upon members of the Woolhope Club a gazetteer, but rather to invite their company upon a sentimental journey, an extended field day in spirit. Perhaps pleasure may be found in contemplating from afar the arteries of Herefordshire, and if there be any information or profit it may not come amiss. You are not asked to assist at a deep mathematical or geographical study, and no doubt each of you could add to what I have to say about his particular district.

It is well known that our county is about forty miles long from north to south and about thirty-two miles wide. It is perhaps less well known that the boundary is some two hundred miles long, and that running water forms at least fifty miles of it. These miles are contributed by a dozen or more brooks and rivers in a score of sections.

In the extreme north-west the little rivers Redlake and Clun, each for about a mile near Leintwardine, divide us from Shropshire. Eastwards the Raddle and the Gosford do the same for short distances.

The Teme also flows between us and Shropshire, for half-a-mile near Downton Castle and again for half-a-mile north of Brimfield. A couple of miles further on there is the Ledwyche Brook, and for the next four miles it is our border until near its junction with the Teme, just short of Tenbury. Then Herefordshire withdraws suddenly westward, with the result that for a mile and a half the Teme, surprisingly enough, gives us a southern boundary; this time cutting us off from Worcestershire.

A dozen miles away to the south-east, as the crow flies, there is the Teme again between us and Worcestershire. This is near Whitbourne and is a stretch of three miles.

A little further south there is for our frontier a mile of the Leigh Brook, a name pronounced as if it indicated a falsehood, though within a comparatively short distance the brook is variously known as the Tundridge, the Mousehole, and the Rundal, before it reaches the Teme in Worcestershire. On approaching the Malvern Hills there is half-a-mile of the Cradley Brook.

South of the Malverns the River Leadon, having come down from Bosbury and Ledbury, gives us a good mile of western boundary, for by another strange conformation a Worcestershire peninsula lies to the west of a Herefordshire one. Not far away there is nearly half-a-mile of the Preston Brook between Herefordshire and Gloucestershire.

Away again to the south-west the Wye itself is reached, and for seven miles, from Welsh Bicknor to near Wyaston Leys, the county boundary is in midstream, interrupted at Symonds Yat where the river doubles back into Herefordshire in the famous Huntsham loop.

Here we are at the southern point of the county, and on turning north-westwards we find it bounded for no less than seventeen miles by the River Monnow, the longest stretch of all. Then comes the long Hatteral Ridge of the Black Mountains, ending at Pen-y-Beacon, better known from our side as the Hay Bluff. The Dulas Brook rises near by, and, tumbling down the Cusop Dingle to empty itself into the Wye at Hay, it continues the frontier of England and Wales, of Herefordshire and Brecknock. The other Dulas Brook, rising near Newton and St. Margarets, flows in the opposite way, to join the River Dore at Pontrilas.

The Wye itself, with Radnorshire on its left or west bank, extends the frontier from Hay for three miles to Rhydspence, and then comes the rising ground leading to Brilley Mountain.

The River Arrow, earning its name perhaps by its speed, though surely not by its direction, comes down from the Radnorshire heights, and at Michaelchurch, flowing north-eastwards, it is our boundary for a mile. Its tributary the Gladestry Brook is on that boundary for a mere furlong, in the valley between Hergest Ridge

and Huntington. Northwards again, and approaching Presteigne, the Hindwell Brook divides the counties for half-a-mile at Wegnall's Mill, near the Rodd. At Presteigne the Lugg for two miles towards the east and the Boultibrook stream coming down from the north form a right angle, still between Herefordshire and Radnorshire. The two-hundred-mile circuit is nearly complete. At Brampton Bryan the Teme is crossed to Coxall Knoll, and in a mile the River Redlake is reached again at our starting point.

What a variety of watercourses we have met, yet most of them having in common the power to become raging torrents in time of flood. The subject of fishing I leave to Izaak Walton and his disciples, better qualified than I to speak of its joys and mysteries; though who has not heard of the trout in Teme and Lugg and Arrow, and many a lesser stream? Of the mighty salmon it can only be said here that many years ago, in a part of the Wye which need not be indicated, one jumped into my punt, and before the legal and other niceties of the position were decided he—jumped out again.

All the world knows of the River Wye, but how many of those who live and move in Herefordshire can name all its rivers and brooks, and say where they flow?

The Wye, which all must hope will soon be again unpolluted, first touches the county at Hay, and enters it in earnest three miles further on, at Rhydspence. It leaves Herefordshire twenty-five miles from Hay as the crow flies, at Wyaston Leys, not far above Monmouth, but in its passage it travels no less than seventy-five miles, or about half its total length.

In the course of several voyages down the river from Boughrood and Glasbury in Radnorshire to Chepstow and Beachley in Monmouthshire one cultivates an eye for the Wye's characteristics and a knack of dealing with them. A year or two ago a writer in the local press said that the river was a suitable one for beginners to navigate, but from that I must dissent. There are difficulties and dangers as well as beauties and delights. One must understand the "streams" and rapids, the rocks and shallows, and learn to judge quickly where the proper channel lies-often a narrow and tortuous one. Hardly any two "streams" on the river are alike, and some of the most perilous places for boats are the safest for swimmers and vice versa. The well known "V stream" at Eaton Bishop is a case in point. Here the bather may play in a natural water chute, but many a boat has been stove in. On the other hand toil in ascending the narrow channel is rewarded by the fact that after perhaps quarter of an hour's struggle in gaining fifty yards one may, immediately above the rocky barrier, relax and rest on quiet water. By contrast the Vineyard stream below Hereford gives no such respite. Having reached the top one must continue for a couple of hundred yards, nearly to the Eign railway bridge, or one will be sucked back.

At Hay bridge one enters the county by a channel hard under the right or Herefordshire bank, only to be compelled to seek midstream at once to avoid stranding. In half-a-mile there is a rocky ledge and the passage through it must be seen in time, typical of many on the Wye. The old timber tollbridge at Whitney makes a fine picture when seen from water-level, and there is probably nothing quite like it in the country. Not far below, at the site of the old Whitney Castle, there is intricate navigation to be done, for the river zig-zags to and fro and great banks of gravel trap the unwary. Two miles further down is Clock Mill, the house on the right bank with gardens so greatly beautified by the late Mr. Rafael Sabatini.

Such names as Turner's Boat, the Boat Inn at Whitney, and the Sugwas Boat nearer Hereford, recall times when ferries were regularly maintained, and people did not drive for miles round when they could be carried across.

At Letton the so-called Letton Lakes flow into the Wye from its left bank, and form a strange loop, probably the old course of the river before some strong flood cut its way across the peninsula.

Less than a mile above Bredwardine Bridge is the difficult passage of Parson's Point. The current is fierce and the channel tortuous, and more than one craft has been swept down and under the overhanging bushes, which can quickly drag the navigator overboard. Bredwardine Bridge shews that beauty can be attained in brickwork, especially when mellowed by time.

Then comes The Scar at Moccas, that great red cliff on the left bank which forces the river to double back in the shape of a hairpin. It is worth going far to see. Rising sheer from the water's edge, and adorned with trees, it shews its warmest colour in the evening sun.

Soon Monnington Falls invite the adventurous. The actual drop may be only about three feet, but the force of the current is great, and the right spot must be seen where one's craft can shoot through without fouling the rocky lip. With a steady hand and eye the passage is exhilarating, but it is possible to come to grief through excess of caution and by moving too slowly.

The rocky channel below the fall is remarkable, and was probably artificially straightened in the days of the barge traffic between the Bristol Channel and Hay, when fixed winches or "engines" hauled the barges up the fall.

At Byford, and shortly below, there are more angular channels, involving sudden crossings from the left to the right bank. We cannot pass without paying our respects to our new President, the Rector.

So, by such landmarks as The New Weir, The Jackdaws, The "V" stream, and The Little Devil, we come to Hereford, past the beautiful woods of Eaton Bishop and Belmont, and along the straight mile-and-a-half which is one of the finest reaches in England, and ends only at Wye Bridge.

The two miles past the city are difficult and beset with shoals, though the public slipways at Quay Street and at The Whalebone Inn were once busy with the loading and unloading of goods. The barges needed a fair head of water above summer level, but their passage kept open channels through the gravel banks which are now silted up. No doubt the whale's blade bone which forms the sign of the inn was brought up on a barge from Chepstow.

Below Hereford the Wye moves in greater bends than ever, and the effect of one great turn to the north-east is that at Lugg's Mouth, near Mordiford, the River Lugg "runs in uphill" as is often said. The two rivers flow directly towards each other, and in times of flood the Lugg gets the worst of it. Its waters are forced back and its floods cannot disperse till the Wye has fallen. Modern land drainage allows the surface water to reach the rivers more quickly than before, and is thus probably the cause of the higher and more frequent floods of the rivers themselves.

Passing on down between difficult rocks at Fownhope one comes to the three Carey Islands at Ballingham, where a broad path of water on the left leads to destruction and a narrow one on the right, with a surging current, is the way of safety.

At the Hole in the Wall above Foy there are scattered rocks as well as great shoals, and the twisting channel needs great watchfulness. Safely past this one approaches Foy Church, where the deep and narrow channel on the right of a huge gravel bank looks easy enough. Actually it is one of the most dangerous places on the river, for the current is mighty and tends to draw a boat under the trees which sweep the water. It would be all too easy to be dragged out and held under water by the branches.

Wilton Bridge at Ross has received the solicitude of our member Mr. G. H. Jack, who has done so much for Herefordshire bridges, but the Ministry concerned has used unsightly makeshifts at Wilton, and we still wonder when the parapet will be put in order and the fine old sundial restored to its place.

From the next venerable stone bridge, Kerne Bridge, near Goodrich Castle, the Wye after passing under an iron railway bridge of excessive ugliness weaves into more great loops, turning back before the wooded hills. So it comes to the cliffs of the Coldwell Rocks and to Symonds Yat, makes an excursion to the Old Forge at Huntsham two miles away, receives the waters of the Garren, and returns to the Yat, enclosing in its loop the Quince

Stone monolith, as to whose origin and purpose our archæologists will no doubt have still much to debate.

Below the Yat is the New Weir, where some years ago too much zeal in removing rocks which threatened the railway had the result of dropping a huge boulder into the fairway. Claims for shipwreck damage gave the railway authorities much cause for thought.

Below the New Weir is Martin's Pool, the deepest part of the river and reputed to be sixty feet deep at summer level. On each side rise the cliffs, heavily wooded and forming a magnificent gorge, and prominent on the cliffs of the Herefordshire side are the Doward Rocks, the Seven Sisters Rocks and the Boy's Rocks.

Here we leave the county, for on the left bank is Gloucestershire and on the right Monmouthshire. There is much more of interest, beauty, and grandeur on the Wye, but it is not within the scope of this paper.

What of our other rivers and brooks? Within or bordering the county the Lugg flows for some thirty-eight miles, the Monnow for twenty-six, the Arrow for twenty, the Teme for nineteen, the Frome for eighteen and the Dore for twelve. Smaller named streams are almost countless.

The Lugg, Arrow, and Teme come down from the hills of Radnorshire and Shropshire as turbulent young rivers, singing on their way and with a rugged rocky charm. At Kinsham the gorge of the Lugg, cleft through the woodlands, is a very splendid and impressive one, but in the grassy lowlands in the centre of the county the Lugg has the still waters and green pastures of the psalmist. It is joined at Longworth by the Frome, a pleasant stream from the pleasant lesser hills. Yet it is recorded of the Frome that below Bartestree its floods swept away and overturned the mail coach, and tradition says that one of the local members of parliament was among the victims drowned.

The Arrow too, reaching Kington through the great valley between Bradnor and Hergest Hills, and keeping its vigour through Titley and Staunton, becomes sobered by the lowlands near Pembridge, and at Eardisland forms part of a famous scene of beauty at peace.

It is interesting to notice that nearly all the northern half of the county is drained by the Lugg, helped by the Arrow and Frome; and that the south-western part is drained by the Monnow and its main tributaries the Dore and the eastern Black Mountain group.

In Herefordshire the Wye receives water in bulk from the Lugg on its left bank near Mordiford, and from the combined Garren and Gamber on its right near Huntsham. Otherwise it has no large tributaries in this county, for the waters gathered by the Monnow are not received by the Wye until Monmouth itself is reached.

I have no wish to discourse on watersheds, catchment areas, and such technicalities, but our rivers flow as they do because of the intervening masses of hill. In the north the high lands of Laysters and Pudleston, stretching eastwards to Bromyard Downs, divide Teme from Lugg.

Lugg and Arrow are parted by Hergest Ridge and Wapley Hill, but join forces in the flat lands south of Leominster.

The Arrow and its main tributary the Stretford Brook are sent northwards away from the Wye, the first by the Brilley hill and high ground eastwards to Broxwood, and the second by Wormsley Hill and Dinmore.

The sources of the Frome and its tributaries are barred from the valley of the Teme, not very far to the north, by the northward extension of the Bromyard Downs to Upper Sapey and Hanley Child.

Between Frome and Leadon is Frome's Hill and between Lugg and Lodon are Hegdon Hill and its outliers. On the south side of the Wye Merbage and the Stockley Hill form a rampart against the Golden Valley and the River Dore which runs therein. Dinedor and Aconbury keep the little Gamber at a respectful distance, and between Dore and Escley is Urishay Common, standing high.

The parallel rivers Monnow and Olchon, rising between the ridges on the Herefordshire side of the Black Mountains, are real mountain torrents flashing among the rocks. The Escley is a little less so, and runs through richer farm land, but is part of the same group. The Monnow collects the other two and settles down to a quieter life before surrendering all to the Wye at Monmouth.

In the east of Herefordshire the River Leadon from Bosbury and Ledbury flows into Gloucestershire, then receives the Preston Brook and makes off to join the Severn at Gloucester.

The Teme, with the waters of small tributary streams from the northern fringe of Herefordshire, also goes eastwards to the Severn, into which it flows just below Worcester.

Of lesser brooks, though named, we have an almost uncountable supply. They cannot be weighed, measured, or tabulated here, but all play their part in the county's life, and we could ill spare them.

May one end on a note not too serious, yet thankful that the lines are fallen unto us in pleasant places:—

Oh land of woods, and hills, and streams, Of fertile fields and pastures rare, Where Nature's truth excels our dreams And seeks to banish lurking care—Not least among thy beauties flow In sinuous courses Arrow, Dore, Pinsley and Preston, Pentaloe, Great streams and little, thrice a score. Stretford, Honeylake, Leadon, Cage, Lodon and Humber, Gladestry, Bage, Teme, Olchon, Escley, Gamber, Leigh, Lugg, Monnow, Garren, fruitful pour Their waters from each hilly store In tribute to our noble Wye.

After the address the President-Elect, the Revd. B. B. Clarke, took the chair. The new President thanked Capt. Wallis for his services to the Club and congratulated him upon his address. This was seconded by Mr. I. Cohen.

The Hon. Treasurer, Mr. P. J. T. Templer, presented the accounts for 1949. The acceptance of these was proposed by Dr. C. W. Walker, seconded by the Revd. G. Ifor R. Jones, and agreed to.

The Assistant Secretary presented his Report for 1949. At the end of the year there were 13 Honorary Members, 320 Ordinary Members and 7 Library Members. This shows an increase of 37 over the previous year and is a larger membership than at any time previously. During the year five members had died, four had resigned and four had been struck off for non-payment of subscriptions. Fifty new members were elected. An appeal was made to members to pay their subscriptions early in the year.

The Librarian presented his annual Report for 1949.

It was decided to hold Field Meetings at Much Wenlock, this being the President's choice, and Caerwent and Caerleon, this to be Ladies' Day. The first Field Meeting in the Kempley district to be held on 25th May. Dr. C. W. Walker proposed that two half day Field Meetings to which ladies and young people should be invited should be held and this was seconded by the Dean and approved.

The following gentlemen were elected Members of the Club — Mr. W. H. Blunderstone, Hereford; Mr. V. H. Coleman, Eardisley; Colonel Kyrle Ffrench, Winforton; the Revd. R. B. Sisson, Ross-on-Wye; Major Lewis Stanisford, Bartestree; Mr. M. H. Thomas, Hereford; Dr. R. R. Walker, Presteigne; and Mr. K. J. Witts, Hereford.

The following new Members were proposed:—Mr. A. G. Cope, St. James's Road, Hereford; Mr. H. J. Ridger, 22 Bodenham Road, Hereford; Mr. S. W. Inman, The Halt, King's Acre, Hereford; and the Revd. G. M. Maudsley, Pixley Rectory, Ledbury.

Mr. H. J. Powell presented his Archæological Report for 1949. Printed on p. 210.

The alterations to Rules II, III and VIII as agreed by the Central Committee were proposed by Capt. O. B. Wallis and after some discussion Rules II and III were approved but Rule VIII was amended to read as follows:—

"Every candidate for membership of the Club shall be proposed and seconded at an open meeting by members who are both personally acquainted with him. The Central Committee shall elect or reject the candidate and one black ball in five shall exclude."

These as amended were seconded by Dr. C. W. Walker and approved by the meeting.

The President told members that the Central Committee had approved for one year the Assistant Secretary's suggestion that money for the Field Meetings should be sent with applications for seats.

FIRST FIELD MEETING THURSDAY, 25TH MAY, 1950

KEMPLEY DISTRICT.

Present: - The Revd. B. B. Clarke, President, Messrs. A. B. Andrews, I. Cohen, V. H. Coleman, J. G. F. Collins, W. G. A. Cope, H. J. Davies, W. G. Dawson, W. H. Ellis, W. G. Farmer, N. H. Gardiner, A. Ll. Gwillim, C. J. Harding, A. F. Heath, R. Hill, A. Johnson, B. S. Averay Jones, W. J. Jones, F. M. Kendrick, W. J. King, A. C. Lane, H. A. Lane, W. J. Lewis, A. L. Mann, A. W. Marriott, N. W. Marriott, J. W. Matthews, E. M. Ockey, Rex Palmer, L. S. Parker, L. J. Praill, H. M. Prichard, J. D. Worsey, C. W. T. Simpson, J. P. Smith, D. Stewart, P. J. T. Templer, R. J. K. Walter, D. A. J. Weedon, R. C. White, A. U. Zimmerman, T. H. Higgins, J. F. Ashby, C. Price, C. T. O. Prosser, J. L. Brewin, the Revd. Max Benjamin, Major R. E. Combe, Lt.-Col. E. H. P. Jackson, the Revd. J. H. Roberts, Major A. E. W. Salt, the Revd. F. I. Turney, Col. T. W. M. Johnson, Capt. O. B. Wallis, Dr. Langdale Smith, the Revd. A. L. Moir, Mr. F. C. Morgan (Hon. Secretary), and Mr. H. J. Powell (Assistant Secretary) and guests.

Leaving Hereford at 10 a.m. the party travelled to Preston Court where Col. T. W. M. Johnson gave a short account of the 17th century building. The Court was visited by permission of Mr. and Mrs. Rhys Thomas.

Proceeding to Much Marcle church members were met by the Vicar, the Revd. A. B. Spittall and by the Revd. C. L. Money-Kyrle who described the features of interest.

At Kempley old church the early wall paintings were seen and described by the Hon. Secretary.

Leaving Kempley, lunch was partaken at the Beauchamp Arms and then at the kind invitation of the Revd. J. E. Gethyn-Jones the Club Meeting was held in Dymock church.

Apologies for absence were received from the following members:—Messrs. E. H. Morris, Hubert J. Powell, C. J. Wingate, T. J. Read, and Nugent Armitage. As Mr. Armitage was in hospital it was resolved that a letter should be sent to him wishing him a speedy recovery.

The Minutes of the Fifth Spring Meeting of 30th March, 1950, were read and confirmed.

The following persons were proposed for membership:—Mr. R. St. John Jones, Hereford; Mr. A. C. Praill, Hereford; the Revd. W. Stubbs Tavernor, Leintwardine, and Mr. F. Chapple, Kingsthorn.

The Hon. Secretary read a letter from the Ministry of Works asking for help in making a survey and record of the City Walls at Hereford. After the Hon. Secretary had stated that this work had in fact been started by the Club prior to the outbreak of war, it was proposed by the President and seconded by Capt. O. B. Wallis, that a reply should be sent to the Ministry stating that the Club would be prepared to help in this work.

The Hon. Secretary had received a letter from the Society of British Entomologists stating that the sixth annual congress would be held in Nottingham in July and asking the Club to send one or more delegates.

The President thanked Col. Johnson for acting as guide to the Club and the Vicar of Dymock said a few words about his church.

Proceeding, the President explained the geology of the district. A visit was made to the Malvern Urban District Council Waterworks where, because of the rain, the President spoke to the members in the shelter of the Pump House. His address was as follows:—

A Note on the Geology of the Bromsberrow Area

To the north of Bromsberrow lies the mass of the Malvern Hills consisting mainly of Pre-Cambrian rocks but with Cambrian and Silurian rocks on the west side. Banked up against this mass of ancient rocks from the south is a succession of red rocks of Permian and Trias age around Haffield, Redmarley and Bromsberrow. The dip is to the south so that we move up the succession as we go southwards. The lowest of these rocks is the Haffield Breccia. It is a typical breccia consisting of angular fragments of rock usually one to two inches in size. The extent to which pebbles of a derived rock of this kind are worn round depends on how far they have been carried in water by streams and rivers. If they are carried far enough they will be completely rounded and the resulting rock will be a Conglomerate. If they have travelled but little or not at all the resulting rock will be a Breccia. H. T. Farrar records that breccias are being formed to-day in the region between the Nile and the Red Sea. The conditions required to form this rock appear to be high mountains under arid climate with sharp differences between day and night temperature. This will cause fragmentation of the rocks. Then there must be very occasional heavy thunderstorms to sweep the broken pieces down the hillsides. The area of the Haffield Breccia is quite small as are those of the similar rocks at Clent and Enville. These chocolate coloured breccias are considered to be of Permian age though some geologists place them at the top of the Carboniferous, and in this case the Permian rocks are considered to be absent from the Midlands.

To the south of the Haffield Breccia is the Bunter Sandstone or more strictly the Upper Mottled Sandstone, being the topmost division of the Bunter and the only one present here. The Lower Mottled Sandstone and the Bunter Pebble Beds are absent, as this area was presumably undergoing denudation in lower Bunter times. The Bunter Sandstone is a bright brick red soft sandstone. When magnified the grains are seen to be partly rounded but not us much as a wind blown sand. There is practically no

cementing material, meaning abundant air space between the grains. This packing of partly rounded grains without cement and so with air space between makes the Bunter Sandstone one of the two richest water bearing formations in England, the other being the Chalk. For water to be available for drinking purposes it is not only necessary to have a water bearing rock but also an impervious floor to hold up the water and also an impervious cover to keep out surface drainage and so keep the water pure. In the Bunter Sandstone there are bands of Marl which serve these purposes so that the situation at Bromsberrow pumping station, which supplies water to Malvern and part of Ledbury, is as ideal as possible for this kind of supply. The boring at Bromsberrow is 200 feet deep in the Bunter Sandstone all the way. At 91 ft. 6 in. there is a band of marl 2 ft. thick making the impervious cover. Below this is 107 ft. of water bearing sandstone. No doubt the estimate of over 200 ft. for the thickness of the Bunter Sandstone in this part given by the Geological Survey is from information supplied by this boring.

Above the Bunter Sandstone is the Keuper Sandstone exposed to the south in a large tract of country called Ryelands, stretching from just south of Bromsberrow to beyond Newent. Above this again is the Keuper Marl which covers the country to the east of the Malvern Fault, which runs in a north-south direction one mile east of Bromsberrow.

Geological Succession at Bromsberrow.

The drive was then continued to Birts Morton where, by kind permission of F. B. Bradley-Birt, Esq., the Court was visited. Despite the heavy rain this visit was much appreciated.

Tea was provided at the Winter Gardens, Malvern, and the return journey was then made to Hereford.

HALF-DAY FIELD MEETING SATURDAY, 10th June, 1950.

WOOLHOPE DISTRICT.

The President, the Revd. B. B. Clarke, and a large number of members and friends were present, including ladies and young people.

The first stop was at Fownhope Church which was described by the Vicar, the Revd. W. R. Chignell.

After leaving the Church, the party proceeded to the road leading to Woolhope, two stops to study the natural history of the district being made.

At the first, where an exposure of the Aymestrey Limestone was seen by the roadside, the President gave the following note upon the "Woolhope Dome" and the party then searched for characteristic fossils, many being found.

A short way up the Woolhope road from Fownhope is an exposure of the Aymestrey Limestone. This is the highest of the three limestones that, together with the sandy shales that come between, make up the Woolhope area. It is an organic limestone built up by tiny organisms working in clear sea water. To try to visualise the conditions under which it was formed it is necessary to imagine conditions very different from those here today but rather like those obtaining in the Great Barrier Reef off the coast of Australia at the present time. The land lay far to the east, and the deep ocean far to the west, where north west Wales is today. Between the two was a broad continental shelf covered with a shallow sea on which these rocks were formed. The limestones needed very clear water for their formation: there were two views as to how this clearness came in the shallow sea. One is that the level of the sea bed oscillated and three times the sea became deeper, and the land further away so the water became clearer. The other view is that strong currents developed from time to time and these kept the sea clear. The clear water gave a chance for other forms of life besides the microscopic organisms which made the limestone. In the case of the Aymestrey Limestone these were the brachiopods, creatures living in little bivalve shells. This family still survives today and their shells can be found on almost any shore. The most common brachiopod in the Aymestrey Limestone is Rhynchonella a small sharply ribbed shell where the two valves join in a crenulated bridge. Other fossils that are found here are Pentamerus knighti and Chonetes striatella. The party then settled in with hammers and a large number of specimens were collected. Rhynchonella nucula as big as a little finger nail, and Rhynchonella wilsoni as big as a thumb nail were both found.

The party then moved on and walked up the ridge of the Wenlock Limestone escarpment. The President explained that this was the middle one of the three limestones. Like the Aymestrey

Limestone it was an organic limestone and rich in fossils and in some places like Dormington Wood there were coral reefs.

He went on to explain the structure of the Woolhope Dome, saying that it was that great pioneer geologist Roderick Murchison who first worked it out. He made out the succession of the rocks and realised that they must have been originally laid down horizontally or nearly so and they were quite definitely not flat today. He perceived that at Woolhope there was a curious upfold or anticline, curious because it died out at both ends, making a dome. The limestones were much harder than the shales and stand out as escarpments, whereas the shales make low ground between. Because of the dome-like structure the escarpments are in the form of rings. The President said we were standing on the escarpment of the Wenlock Limestone, in front was the low ground formed by the Lower Ludlow Shales. In the distance was the higher ground of the Aymestrey Limestone escarpment. Behind could be seen the low ground of the Wenlock Shales and beyond that the hard core of the dome making Haugh Wood, consisting of the Woolhope Limestone and the Llandovery Sandstone. Murchison's pioneer work on the structure still held today, though much detail has been added by C. I. Gardiner and R. W. Pocock. Members then hunted for fossils, and specimens of Favosites, Strophonella euglypha, Leptaena rhomboidalis and Atrypa reticularis were found.

The second stop was at the Nupend Ridge where the President pointed out the formations he had previously mentioned and on the walk above the ridge the botany was described by Major A. E. W. Salt.

Tea was partaken in an old quarry and afterwards the party went to see the "Marcle Wonder", where extracts from old writings upon this great landslide were read by the Hon. Secretary.





Photographs by B. Butcher

Two unusual photographs of the upper surface of the Woolhope Limestone at the junction with the Wenlock Shale, showing jointing in the Limestone. Locality: South of Haugh Wood, Woolhope.

SECOND FIELD MEETING

THURSDAY, 22ND JUNE, 1950.

MUCH WENLOCK DISTRICT

Present:—The Revd. B. B. Clarke, President, Messrs. H. J. Davies, W. H. Ellis, C. J. Harding, W. H. Howse, W. J. Jones, F. M. Kendrick, A. W. Marriott, N. W. Marriott, H. M. Prichard, L. S. Parker, J. G. Sanders, C. W. Simpson, D. Stewart, R. J. K. Walter, C. J. Wingate, A. U. Zimmerman, A. Wood, W. Ridley Thomas, F. T. Hocking, W. J. King, J. W. Matthews, Rex Palmer, D. Parsons, R. C. White, Col. T. W. M. Johnson, Preb. S. H. Martin, Major A. E. W. Salt, and Mr. F. C. Morgan (Hon. Secretary).

The first stop was at the Titterstone Clee Hill Quarry, which was visited by permission of the British Quarrying Company. Here the President gave the following interesting talk on the geology of the district illustrated by a diagram he had prepared for the purpose.

Titterstone Clee Hill was a small area of younger rocks surrounded by older ones. These younger rocks were of Carboniferous age and consisted of the Carboniferous Limestone, which members would see at Oreton, where we were to lunch; the Millstone Grit, which we saw in the sharp rise at Coreley when we began to ascend the Titterstone Clee; and finally at the top the Coal Measures, which we were looking at in the quarry. The interesting feature about the Coal Measure series at the Clee was the great flow of igneous rock some 150 feet thick. This rock, called locally the Dhustone, was being quarried for road metal, and was very widely used for this purpose even as far away as London. The Dhustone had the composition of a Basalt and was thought by some to be a lava flow from a volcano which erupted in Coal Measure times. It was a remarkable fact that volcanoes all over the world, and in all geological periods, erupted a lava of the same composition. This suggested that these lavas come from a depth far below all the surface rocks with their great variableness. A figure of 30 miles is the one geologists had in mind for the depth from which these lavas were thrown up. Not all agreed that the Clee Hill Dhustone is a lava flow, some thought it to be an intrusion of igneous rock forced into the Coal Measures in a molten

Afterwards, under the guidance of the foreman, the machinery for crushing and grading the stones was inspected. Magnificent views were seen from the quarry.

The next stop was at Oreton near the New Inn, where lunch was eaten and a quarry of Carboniferous Limestone was seen. Here the President pointed out the unusual colithic formation of this limestone, somewhat resembling the Oclite of the Cotswold Hills. Afterwards the business of the Club was transacted.

The Minutes of the meeting on the 25th May, 1950, were read and confirmed.

Apologies for absence were received from the Dean, Messrs. E. A. Moir, J. R. Venning, N. Armitage, A. Johnstone, V. H. Coleman, and E. Ockey.

The Hon. Secretary was asked to send a letter of sympathy to Mr. Ockey in the loss of his brother.

The Members proposed at the meeting of 25th May were declared duly elected.

The following gentlemen were proposed for membership:—Mr. Peter C. Statham, Hereford, and the Revd. Ivor J. Richards, Cramlin, Monmouth.

The Hon. Secretary reported that correspondence was still taking place between the Ministry of Works, the City Council, and the Club concerning the City Walls.

The party then proceeded to Aston Botterell passing the highest bed of the Old Red Sandstone at Farlow. At Aston Botterell the Revd. Preb. S. H. Martin gave a short account of the history of the manor and then the Manor House was seen by permission of the tenant, Mrs. W. P. Kinnish. Here the 16th century plaster ceiling and the roof timbers were noteworthy.

The supposed site of the moated house of Tochil, one of the few Saxons to retain his possessions at the Conquest, was seen in an adjoining field and the Rector kindly invited the members to visit the church, where there are effigies of the Botterell family.

Going next to Much Wenlock, the 16th century Guildhall and Court Room were found to be of great interest.

Buildwas Abbey was next visited (by permission of the Ministry of Works) and a short note on this was given by the Hon. Secretary.

The President described the great interest of Ironbridge Gorge, illustrating his remarks with a diagram.

Standing overlooking the flat ground which once was Lake Buildwas and with the steep sided rocky gorge at Ironbridge in the distance the President explained that before glacial times the river Severn joined the Dee and flowed out to the Irish Sea at the Wirral. During the glacial period ice poured into the Irish Sea from the mountains of the Lake District, Scotland and Ireland, and this ice advanced over the Cheshire plain, thus cutting off the escape of the Severn. As the ice age passed and conditions began to get warmer the ice melted and began to retreat over the Cheshire plain leaving two small lakes at Buildwas and Newport. Into Lake Buildwas came much of the water that had originally flowed into the Dee estuary as well as that from the melting ice. The lake overflowed at Ironbridge into the valley of the Stour and so the water got away southwards. Further retreat across the Cheshire plain enlarged the two small lakes till they coalesced to form the large Lake Lapworth. The overflow from this also was through the new gap at Ironbridge. When the ice had quite gone and the Cheshire plain became drained once again, most of the water, including the upper Severn, continued to flow through the new gorge and so down to the Bristol

Channel as it does today instead of going to the Dee estuary as in pre-glacial times. The work of collecting information in the field and working out all the details of this theory has been done by Professor L. J. Wills.

Passing by the Gorge the party went to the Swan Hotel, Bridgnorth, for tea, and returned to Hereford, which was reached at 7.50 p.m. The whole journey was through fine scenery.

HALF DAY FIELD MEETING SATURDAY, 8TH JULY, 1950.

LEOMINSTER DISTRICT.

The President, the Revd. B. B. Clarke, and a large party of members and friends were present.

The first stop was at the Old Red Sandstone quarry at Gates Wood on the road to Dinmore Manor, where the President gave an interesting address on the rocks here which contain the Psanmosteus Limestone.

He said:

The first thousand feet of the Downtonian consisted of red marls and the top 250 feet of harder rocks with limestones, cornstones and sandstones. It was the hard nature of these rocks that made Dinmore Hill. He described the conditions of formation as the estuary of a great river. The Psammosteus Limestone was seen in the quarry and this he explained to be a chemical limestone formed by the infiltration of water charged with carbonate of lime into marl or sandstone. That it is almost always nodular in character suggested that infiltration was not the whole story of its formation but that some process of growth was also involved. One of the cornstone bands was also seen in this quarry and these were explained to be fragmental limestones of mechanical origin. They consisted of fragments of limestone cemented together to make a solid rock. The Downtonian rocks were of great importance as they contained fossils of the earliest plants and of the earliest fishes. Unfortunately they are very rare and difficult to find, and here the Club had the opportunity of seeing one of the fish horizons, Onchus and Trequairaspis symondsi were both to be found and members searched and found some specimens.

The party then moved on to Howe Wood, also on Dinmore Hill, to see the large exposure of Calcareous Tufa there. It was explained that in origin this was the same as the Deeple Tufa at Moccas and some leaf impressions were found.

After a picnic tea the party proceeded to Leominster Priory where the Vicar, the Revd. S. M. F. Woodhouse, allowed the most beautifully written early register and pre-Reformation chalice to be exhibited. The Hon. Secretary, Mr. F. C. Morgan, gave a short account of the architecture of the Church.

The last place visited was Shobdon, where the church, the best example of a "Strawberry Hill Gothic church" in England, was seen and also the Shobdon arches, which were taken from the old church by Lord Bateman in the 18th century and re-erected in the Park. These were described by the Hon. Secretary.

THIRD WHOLE DAY FIELD MEETING

MONDAY, 17TH JULY, 1950.

CAERWENT AND CAERLEON.

Present:—The Revd. B. B. Clarke, President, Messrs. N. L. Armitage, H. Biggs, F. Chappel, W. G. A. Cope, H. J. Davies, C. Evans, W. H. Ellis, W. G. Farmer, W. K. Goodall, A. Ll. Gwillim, C. J. Harding, F. T. Hocking, W. H. Howse, T. W. Inman, A. Johnson, W. J. Jones, W. J. King, H. J. Knill, H. A. Lane, W. J. Lewis, C. G. Marchant, A. W. Marriott, N. Marriott, J. W. Matthews, R. C. Monkley, E. M. Ockey, L. S. Parker, S. Pitt, H. M. Prichard, H. Ridger, F. H. Scudamore, J. P. Smith, C. H. Sturgess, R. J. K. Walter, R. C. White, C. J. Wingate, I. Cohen, G. H. Fletcher, A. F. Heath, F. Leeds, R. Palmer, H. J. Powell, G. Trafford, A. U. Zimmerman, Col. T. W. M. Johnson, Major C. E. Lewis-Stanisford, the Revd. G. O. Lewis, the Revd. J. H. Roberts, the Revd. S. Max Benjamin, the Revd. I. J. Richards, Mr. T. A. Matthews, Mr. F. C. Morgan (Hon. Secretary) and Mr. H. J. Powell (Assistant Secretary) and many lady and gentlemen guests.

Leaving Hereford in three coaches and a number of private cars, a stop was made at Chepstow for coffee. Here the party met the Revd. A. B. Purchas, one of the oldest members.

Proceeding to Caerwent, members were met by Miss A. Williams of the National Museum of Wales, who gave an interesting account of this one-time Roman town built in A.D. 75, a long stretch of the original wall being still in existence. Here lunch was eaten before proceeding.

Caerleon was next visited and here the complete foundations of two sets of Roman barracks were explained before proceeding to the amphitheatre, one of the best preserved in the country. Before proceeding the President proposed a vote of thanks to Miss Williams for her invaluable services during the day.

At the museum the exhibits were explained by Miss Williams, who remarked upon their great importance in any assessment of the history of Roman Britain. Proceeding to Usk, tea was provided at the "Three Salmons Hotel", where the business of the Club was transacted.

Apologies for absence were received from the Dean of Hereford, Col. K. Ffrench, Mr. E. A. Moir and Mr. T. J. Read.

The Minutes of the meetings of 10th June, 22nd June, and 8th July, 1950, were read and confirmed.

The Members proposed at the meeting on 22nd June were declared duly elected.

The following gentleman was proposed for membership:—Mr. Kenneth Matthews, Hereford.

The Hon. Secretary was asked to send a letter of sympathy to Mrs. Holland upon the death of her husband, and a letter to the Revd. A. B. Purchas expressing the pleasure of the members at his presence at Caerwent and Caerleon.

The return journey was then made to Hereford via Abergavenny.

FOURTH WHOLE DAY FIELD MEETING.

THURSDAY, 7TH SEPTEMBER, 1950.

LINGEN DISTRICT

The Rev. B. B. Clarke, President, and upwards of 60 members and friends were present.

Apologies for absence were received from Messrs. Coleman, Brooke, Gray, Prichard and Read, the Rev. H. T. Watts, the Rev. Preb. S. H. Martin, the Rev. W. S. Tavernor and Dr. Langdale-Smith.

In two buses and several private cars the party proceeded to Kingsland where they were met by Mr. J. S. Price who took them to a part of the old "West Field" of Kingsland where remains of the strip system of cultivation were still to be seen. These were described by Mr. Price and led to an interesting discussion.

Mr. Price has written as follows:---

GREAT WEST FIELD, KINGSLAND

I have to explain a few details in connection with the plan prepared by Mr. I. Cohen, of part of the Great West Field of the royal manor of Kingsland, which indicates the area inspected by the Woolhope Naturalists' Field Club when it visited the district on September 9th, 1950.

The Great West Field was recorded in the Domesday Survey of 1086 as one of the fields of the manor and probably covering several hundreds of acres, and extending nearly to Mortimer's Cross.

The strips which were, and still are, cultivated, are approximately half an acre each, and divided by grass meres or balks, and illustrate the layout of a section of the open field, and the method of husbandry as practised on the mediæval manor.

I think these strips have survived owing to the fact that under the Enclosure Acts they were apportioned to nearby small holdings, and as they were sufficient to provide each holding with potatoes or roots or a small quantity of corn, consequently have been maintained in cultivation to the present time, not in communal, but in individual ownership.

An adjoining field was similarly divided until a few years ago, but one person obtained possession of all the strips and by ploughing obliterated all the meres.

The fields alongside the road towards Mortimer's Cross are divided by hedges which undoubtedly follow the lines of the meres. Some of these fields measure 220 yards long which was the furlong—or furrow length. My farm workmen still speak of an acre length, meaning 220 yards, and an acre width as 22 yards. 220 yards by 22 yards, i.e., one acre, the quantity of ground which it is supposed an ox-team could plough in one day.

It is interesting to observe that the word mere is used locally today and appears to be an Anglo-Saxon word for boundary.

I think it would be fair to assume that these strips with their grass divisions—and the word used to denote them—are a survival from Anglo-Saxon times.

There is no record, but there must have been a bonemill at the house and buildings shown on the map as Bonemill, for I find that in an old directory of the County about 100 years ago a resident of Kingsland was designated a bonemiller.

Another feature depicted on the plan is a section of the Leominster and Kington Canal.

Deep excavations exist and extend eastward for about half a mile, but all work terminated at the point intimated amongst the strips.

The project for a canal was evidently abandoned owing to the coming of the railways—the Leominster to Kington branch line was commenced on November 30th, 1854.

To further assist in the identification of the field, the gated entrance to the roadway near Bonemill is 250 yards north-west of the stone commemorating the battle of Mortimer's Cross, at the junction of the Kingsland and Hereford roads, adjoining which is a milestone five miles from Leominster.

The Rev. G. Ivor R. Jones remarked that before the disestablishment of the Welsh Church he, as rector, owned strips of land in various fields of Llanfilo.

Llanfilo glebe land possessed eight unfenced "strips" in fields occupied by various farmers but now I believe bought by the owners and occupiers of the farms from the Welsh Church Commissioners, I rather imagine in every case. There was also a small fenced field. There were two such strips on the Draen Farm, Talgarth. The farm is in Talgarth parish but most of its land is in Llanfilo though there is a fair amount in Talgarth as well. The extent of the strip pieces was:—

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This is the small field which is hedged. The rent of these two bits was £2 3s. 0d. There were 8 acres 3 roods 38 perches of glebe land in strips and one small field.

Evidently the Church was unwilling to sell its strips. Most of these strips were a mile or so away from the Rectory.

There was a tradition that the Church had lost one of its strips. I believe it was on Tredomen Court Farm, but it was not listed on the Tithe Award in 1840.

Lord Tredegar's agent planted the strip on Hillis Farm by mistake and paid £1 a year rent until the late rector cut down the wood on the strip and sold it. After that, they ceased to pay any rent.

The next stop was a short distance on towards Mortimer's Cross where a description of the battle was given by Major Salt.

The Major said :-

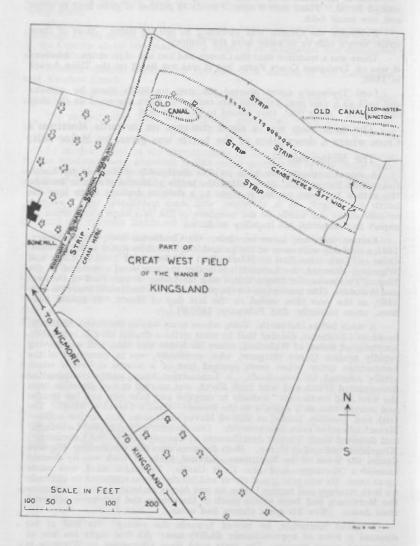
A recent authoritative book on *The Battlefields of England* by Lieut-Col. Alfred Burne, R.A., has omitted the battle of Mortimer's Cross because the author has been unable to come to a definite decision as to how the battle was fought. It is, therefore, with some trepidation that I venture to talk about the battle to the members of the Woolhope Club, when an expert has admitted his inability to do so.

Certain facts are, however, clear. On Candlemas Day, 2nd February, 1461, a cold day with snow on the ground, the Yorkshire forces under Edward, Duke of York (also Earl of March, Earl of Ulster and Lord of Clare and Wigmore) defeated the Lancastrians under the combined command of the Earl of Pembroke, Sir Owen Tudor and Sir James Butler, Earl of Ormond and Wiltshire. (The inscription on the pedestal on the battlefield bears the date 1460, as the year then ended on the last day of March. It should have been, more correctly, 2nd February, 1460/61.)

A week before the battle, York, whose army was in the South Midlands, based on Gloucester, decided that he must strike a drastic blow in retaliation for the cruel defeat of Wakefield, where his father was slain, and was moving rapidly against Queen Margaret, who, nominally, was in command of the Lancastrian army, when news reached him of a hostile diversion which vitally affected his own lands. A Lancastrian force, partly composed of discontented Welsh and wild Irish Kerns, was moving in two divisions from the west and south-west 'sodenly to surprise and take him and his frendes and convey him as a captive to the quene'-(Hall's Chronicle, 1609). The Irish had, possibly, landed at Milford Haven or at some port farther north-Haverfordwest or even Aberystwyth. One division soon occupied Leominster and defeated small Yorkist detachments at Cursney Hill on the Leominster-Kingsland road and at Eyton. Both divisions were also threatening Wigmore Castle, the home of the Mortimers-Edward, Duke of York was by descent himself a Mortimer-and also Croft Castle. Edward's mind was made up at once. He was young and clever and his cleverness connoted an aptitude for both strategy and tactics.1 Also, he was deeply ambitious. For generations the Mortimers had been within reach of the throne and had never achieved their desire. Now his great chance had come.

Without hesitation, he moved towards the enemy. He had at his disposal a force of approximately 23,000 men. At first sight his line of movement seems strange. The main road from Gloucester to Wigmore is through Hereford. Leominster, however, was in enemy hands and all Yorkist resistance had been cleared from its neighbourhood. Edward,

Professor G. M. Trevelyan says "he was the best soldier produced by those rough-and-tumble campaigns".



therefore, moved rapidly along the line of the Severn to Shrewsbury, when he turned south-south-west. Here he received first news of the make-up and position of the enemy forces, who were drawn up in line of infantry and bowmen a little to the south of the Battlefield Oak, which, until very recently, was an outstanding landmark. The right wing touched the Lugg, the left wing stretched almost to Shobdon. Both wings were to the north of the centre, so that the whole line was like the arc of a great circle. How fast Edward moved we do not know, though we may assume that he wasted no time in marching down from Shrewsbury to Ludlow and thence by Richard's Castle, Bircher and Lucton, along the road which comes in across the Pinsley Brook. To his satisfaction, and, surely, to his surprise, he was able to interpose his troops between the Lancastrians and their immediate goal, his Wigmore lands and castle. Edward made one attempt to avoid the clash of armies. He dispatched a pursuivant, one of the lower order of Heralds, to Pembroke, asking for a trial by battle, which Pembroke refused. The battle was engaged without delay to the accompaniment of a parhelion—three suns in the sky—a badge which Edward later adopted as part of his arms.

The Lancastrians, probably, made the first attack. It was unsuccessful on the right and centre, but, on the left, towards Shobdon, it succeeded and they followed up the defeated Yorkists into the hills and thick woods west of Aymestry. They seemed to have committed a tactical error in so doing. They might easily have been caught in the heavy undergrowth of the woodland and have found it difficult to return. Those that came back found the right and centre slowly giving way, and could do nothing to stop the impact of the Yorkists. The result was a shambles. The Leominster garrisons were encircled by Mortimer and Croft auxiliaries, who had swung round to occupy the town. Sir Owen Tudor was caught at Kingsland, taken to Hereford and executed; even Kinsham Dingle, to the south-south-west has its tradition of dead and dying Lancastrians. Edward slept at Leominster that night, and then rallied his forces and prepared for a northern campaign where, at Towton, he won a crowning victory on 28th March. He had been proclaimed King, as Edward IV, on 4th March. This last battle on Herefordshire soil had brought a Mortimer to the very foot of the throne, even if Lord Justice Crew was later to exclaim 'Where are the Mortimers now?'

There are still unsolved problems about the battle.

(1) Where did the Lancastrians rendezvous before moving into line?

(2) What has happened to the gilt spur given to the Hereford Literary Society a century ago, or to the bridle-bits and stirrups dug up in 1854?

(3) There are Blue Mantle Cottages within the battle zone. Have they any connection with the challenge made by Edward to Pembroke? We know that 'Blue Mantle' is a Herald of the lower order.

In conclusion, as the Battle Oak has now fallen, its site, in the centre of the battlefield, should, surely, be commemorated by a suitable stone and inscription.

At Grove Head Farm the party were met by Mr. J. Griffiths who led the way to the site of the pottery kiln of Grove Head Farm. Here a short outline of the history of the local pottery industry from 1610 to about 1800 was given by the Hon. Secretary, Mr. F. C. Morgan, and Mr. Griffiths described the formation of the kilns and the types of pottery he had found there.

The party had lunch and afterwards proceeded to Birtley House where Mr. Griffiths had made a special display of the pottery he

had reconstructed from great quantities of fragments from local kiln sites. The members were amazed at the variety of shape, size and colour of the vessels, some of great beauty. The skill, patience and industry of Mr. Griffiths in the work that had occupied his spare time for many years were remarkable.

It is hoped that a special article upon this pottery will be written in course of time.

The next stop was at Boresford where another pottery site was examined and its geology described by the President.

He said there were three essential constituent minerals in the plastic dough like mass from which the potter made his ware. They were clay, finely ground quartz, and finely ground felspar. This mass was puddled, sieved, allowed to settle, and then worked up into a dough. After the pot had been made on the wheel it was fired at just over 1,000 C. This made a rough pot of porous terra-cotta ware. Most glazed pots were fired twice, and for this second firing the rough pot was coated with the same mixture as before, only rather thinner and with extra felspar, the mineral acting as a flux and also a mineral like galena to give colour to the glaze. The pot was again fired at the same temperature as before, but this time because of the extra flux the thin overcoat melted and when the pot cooled this set into a hard glaze. A rough brown glaze could be imparted with a single firing by throwing salt into the kiln.

He then went on to describe the geology of the site, which was an old lake bed and this he thought was the secret of the pottery site. Water washed out the fine clay from the larger stones of the drift up the valley and carried it in suspension till it was checked on entering the lake and the clay was thrown down, coarser material first, and finer as the lake was crossed. Ultimately the lake was drained and there was left a deposit of naturally sorted clays of various grades of fineness. This was undoubtedly the source of the clay and he imagined the quartz pebbles, and possibly the felspar, came from the drift also, though the latter may have been imported from Wales or Cornwall.

The President went on to mention a point of rather wider significance in that at Boresford we were standing almost on the line of the Church Stretton fault. This long line of dislocation stretching from Church Stretton in the north-east to Old Radnor in the south-west was of importance for two reasons. Most of the igneous rocks of the Welsh Border appear along its line. There were the Uriconian rocks of Caradoc and Cardington Hills in the north, and the Gabbros and Dolerites of Hanter Hill and Stanner Hill in the south. Then in Silurian times this fault seems to have marked the edge of the continental shelf. To the east of the fault lay the shelf with the shallow water deposits of sandy shales and limestones that we saw at Woolhope, while to the west the Silurian rocks were quite different fine shales, dark grey, almost black in colour, laid down on the floor of the deep ocean.

The party then went on to Bucknell where by the kindness of Mr. Davis they saw two specimens of the tree *Metasequoia clyptostroboides* grown from seed sent to Mr. Davis from the United States.

The tree is a survival of a fossil form and was not known to exist until specimens were seen by members of an American expedition to China during the war of 1939-45. Afterwards a special party was sent to gather seeds and specimens of leaves,



 $\label{eq:photograph} Photograph\ by\ J.\ Allan\ Cash,\ F.R.P.S.$ Mr. J. Griffiths with his Pottery.

etc., the seeds being widely distributed to growers. Out of forty sent to Bucknell and planted in 1948, three only had germinated. One tree reached 31 inches in height.

The next stop was made at Lingen where tea was provided by the Royal George Inn, at the Parish Room. Here the business of the Club was transacted.

The minutes of the meeting of the 17th July were read and signed.

A letter from the Town Clerk of Hereford asking the members of the Woolhope Club to assist in the survey of the field paths was read. Mr. W. H. Blundstone, Mr. I. Cohen, the Rev. G. O. Lewis and Captain O. B. Wallis, kindly undertook to represent the Club, the last named also undertook to make copies of the list of paths sent by the Town Clerk.

The following new member was proposed for membership: Mr. A. L. Sockett of Monmouth.

The Hon. Secretary reported that the Rev. A. L. Moir had kindly given a copy of *Historic Ludlow Castle* written by himself to the Club's library.

The President reported that he had attended the British Association Conference at Birmingham where matters of interest to the Club were brought forward:

(i) It was requested that writers of papers shall put a summary of not more than 200 words either at the beginning or end of their papers.

(ii) That the Council for the Promotion of Field Studies had arranged centres at Juniper Hall, Surrey; Malhom Farm, Yorks; Dale Fort, Pembroke and Flatford Mill, Colchester. Particulars of these centres and fees for a week's attendance would be available on application to the Secretary of the Woolhope Club.

(iii) Only twelve meteorites had been found in Britain in the last 150 years.

It was resolved that further investigation be made in the supposed fall of a meteorite at Bosbury in 1900 recently reported to the Club.

Very hearty thanks were passed to Mr. J. C. Price, Major A. E. W. Salt, and Mr. J. Griffiths for the great help given towards making this meeting successful. It was resolved that a letter be sent to Mr. R. Gray regretting his inability to attend the meeting.

FIRST AUTUMN MEETING.
Tuesday, 24th October, 1950.

LECTURE:

"Excavations at Sutton Walls"
By Miss K. Kenyon, F.S.A.

The President, the Rev. B. B. Clarke, was in the chair and there was a large attendance of members and friends.

The minutes of the Field Meeting held on 7th September were read and signed.

The President reported that those members who had promised to check the public footpaths it was proposed should be scheduled within the City of Hereford had completed their report which had been sent to the Town Clerk. Especial thanks were due to Mr. Cohen for the work he had done in drawing up the report and making a map of all known paths.

The Rev. Griffith Pugh Jones, Little Marcle, Major J. H. Franklin, Eastbourne, and the Rt. Rev. the Lord Bishop of Hereford were proposed for membership.

Miss K. Kenyon, F.S.A., then gave a lecture illustrated with lantern slides upon the excavations she had made at Sutton Walls, by permission of Mr. J. N. Gwynne, the owner, and with the help of the Office of Works, during the past three years. Many important discoveries concerning the history of the occupations of the earthworks had been made. A very fine large black earthenware pot had been restored from fragments found at Sutton and this was given to the Museum by Mr. Gwynne. An interim report for publication in the Club's transactions would be sent to the Hon. Secretary (see pp. 148-154), but a full description of the work would probably be printed by the Society of Antiquaries. Miss Kenyon hoped to complete the excavation of the west end of the camp at Easter, 1951. A discussion upon the work took place and the members then inspected the relics on exhibition. A hearty vote of thanks was then passed unanimously to Miss Kenyon.

Apologies for absence were received from Mr. P. J. T. Templer and Major Salt.

SECOND AUTUMN MEETING. THURSDAY, 9TH NOVEMBER, 1950.

LECTURE:

"THE DIARY OF WILLIAM POPE"
By the REV. I. C. DALE, B.A.

The President, the Rev. B. B. Clarke, was in the chair and there was a good number of members and friends present.

The minutes of the meeting on 24th October, 1950, were read and signed.

A letter from Mr. A. R. Duncan, County Planning Officer, asking for the opinion of the members of the Woolhope Club upon the mapping of areas of amenity and landscape beauty for the purpose of the County Plan was read. Mr. Duncan who was present then explained the scheme illustrated by a large scale map of Herefordshire divided into (i) Areas of high amenity; (ii) Nature reserves; (iii) National parks and (iv) Conservation areas. It was resolved that the President, Mr. I. Cohen, Major A. E. W. Salt, Dr. Walker and the Hon. Secretary be appointed a sub-committee to report upon this subject.

Mr. G. H. Hadfield was proposed as a new member of the Club.

Letters from Miss Radcliffe Cooke asking for information about the Flemings in Hereford and from Mr. R. L. Barrow reporting the capture of Megachile ligneseca (Aculeate hymenoptera) on the bank of the River Lugg at Marden were read.

Major A. E. W. Salt exhibited a brass sundial from the church at Weobley, found in a builder's yard recently. This was twice used, both sides being lettered.¹

The Rev. J. C. Dale then read an interesting paper upon the diary of William Pope, which he had found in the safe of Ledbury church. This recorded a sea voyage to Spain and Portugal in a man-of-war in 1812 when the Lords of the Admiralty had given permission to the writer to test his apparatus for measuring speed and currents. It was not known who the writer was and what connection with Ledbury he had, if any. The experiments had not led to any useful results. Mr. Dale exhibited the diary and a number of photostats of letters from Pope now at the Public Record Office.

An apology was received from Preb. S. H. Martin.

¹ On obverse: John Burch, John Barnes, gent., Church Wardens, 1666. On reverse: Samuel Hobson, William Munox, Church Wardens, 1703.

THIRI) AUTUMN MEETING. THURSDAY, 30TH NOVEMBER, 1950.

LECTURE:

"THE NORTHERN PART OF THE LOWER OLD RED SANDSTONE OUTCROP OF THE WELSH BORDERLAND"

By D. L. DINELEY, B.Sc.

The President, the Rev. B. B. Clarke, was in the chair and there was a good attendance of members and friends.

The minutes of the meeting on 9th November were read and signed.

Mr. D. L. Dineley, B.Sc., gave a lecture on "The Northern Part of the Lower Old Red Sandstone Outcrop of the Welsh Borderland". This was illustrated by diagrams by means of which the lecturer explained the latest theories concerning the formation of the sandstone.

The President and Hon. Secretary commented upon the importance of the work being done by Mr. Dineley and others. (The paper is printed on pp. 127-147.)

WINTER ANNUAL MEETING.

THURSDAY, 13TH DECEMBER, 1950.

Present: The Rt. Rev. the Lord Bishop of Hereford, Mr. N. G. Armitage, the Very Rev. the Dean of Hereford, Messrs. G. H. Butcher, I. Cohen, N. H. Coleman, J. G. F. Collins, H. J. Davies, W. G. Dawson, C. Evans, G. H. Fletcher, R. A. Ford, A. F. Heath, F. T. Hocking, T. W. Inman, Lt.-Col. E. H. P. Jackson, Messrs. A. Johnston, F. M. Kendrick, Rev. F. R. C. Jarvis, Rev. C. Ifor Jones, Dr. A. W. Langford, Messrs. W. J. Lewis, A. Lovesey, A. L. Mann, N. W. Marriott, N. Marriott, Preb. S. H. Martin, Mr. E. H. Morris, Captain Mumford, Messrs. E. M. Ockey, R. Palmer, L. Parker, H. J. Price, H. M. Prichard, Rev. J. H. Roberts, Mr. G. W. Russell, Major A. E. W. Salt, Dr. A. G. Langdale Smith, Messrs. J. P. Smith, C. R. H. Sturgess, P. J. T. Templer, Dr. C. W. Walker, Captain O. B. Wallis, Messrs. D. Weedon, R. Comley White, the Ven. A. J. Winnington Ingram, Messrs. K. Witts, A. U. Zimmerman, and Mr. F. C. Morgan (Hon. Secretary).

In the unavoidable absence of the President, the Rev. B. B. Clarke, the Ven. A. J. Winnington Ingram was voted into the chair.

The acting-President referred in moving terms to the death of Mr. George Marshall, F.S.A., who passed away on Monday, 11th December, 1950, who had been Hon. Secretary of the Club for 30 years, and during his long illness had been a tower of strength to the new Hon. Secretary. It was a matter of regret that he had not lived to see his *Hereford Cathedral* published. This was dedicated to the Club members and would be issued within the next few days. The members present stood in silence in memory of their lost leader.

Apologies for absence were received from the President, Messrs. J. F. Ashby, R. H. Baillie, Major R. C. Combes, Rev. J. Goss, Sergeant D. Grigg, Messrs. W. H. Howse, F. Leeds, Colonel T. W. M. Johnstone, Rev. W. S. Tavernor, Mr. J. B. Willans, V. Higham and B. Butcher.

Correspondence. A letter was read from the Rev. J. Goss concerning the destruction of ancient earthworks, particularly parts of Offa's dyke. The Ministry of Works asked for help in scheduling the ancient monuments of Herefordshire. The President, Mr. R. S. Gavin Robinson, and the Hon. Secretary were appointed a sub-committee to deal with these matters.

The following officers for the year 1951-1952 were elected:—President: Mr. F. C. Morgan; Vice-Presidents: Rev. B. B. Clarke, the Ven. A. J. Winnington Ingram, Mr. G. H. Butcher, Major A. E. W. Salt.

Central Committee:

- To retire in 1952: Mr. I. Cohen, Mr. C. Evans, Mr. F. M. Kendrick, Mr. A. U. Zimmerman.
- To retire in 1953: Colonel T. W. M. Johnstone, Dr. H. J. Langdale Smith, Mr. H. M. Prichard, the Rt. Hon. Lord Rennell.
- To retire in 1954: Mr. W. H. Howse, Dr. A. W. Langford, Preb. S. H. Martin, Captain O. B. Wallis.

Editorial Committee: The Ven. A. J. Winnington Ingram, Mr. W. H. Howse, Major A. E. W. Salt, and the Hon. Secretary, with power to add to their number.

Hon. Treasurer: Mr. P. J. T. Templer.

Hon. Auditor: Mr. S. Widgery.

Hon. Secretary: Mr. F. C. Morgan.

Librarian and delegate to the Society of Antiquaries: Mr. F. C. Morgan.

Hon, Lanternist: Mr. B. Butcher,

Sectional Editors: Ornithology, Captain H. A. Gilbert, Dr. C. W. Walker; Botany, Major A. E. W. Salt; Geology, Rev. B. B. Clarke; Archæology, Mr. I. Cohen, Preb. S. H. Martin.

It was resolved that the following proposals for celebrating the Centenary of the Club be adopted as far as possible:

- Publication of a Centenary volume in place of the Transactions on various aspects of the county from papers to be delivered beginning in October next.
- 2. Dinner at the Green Dragon.
- Photograph of members to be taken at a Field Meeting at Woolhope.
- 4. A joint meeting with the members of the Mycological Society.
- A President's badge to be worn by each President upon taking office.

It was resolved to hold Field Meetings in 1951 at Weobley and Bromyard districts. A letter from Mr. B. Butcher asking for some half-day meetings on Saturdays was read. It was resolved to hold two or more, one to be at Woolhope. Mr. Butcher

also asked for some of the winter meetings to be held in the evenings.

The Rev. Preb. C. S. Stockley, Mr. A. W. Branston, Mr. L. A. K. Harris, and Mr. E. A. Walters were proposed for membership.

Dr. C. W. Walker presented his report upon ornithology for 1950.

Major A. E. W. Salt presented his report upon botany for 1950.

It was resolved that a grant of £5 be made towards the preservation of the Kite.

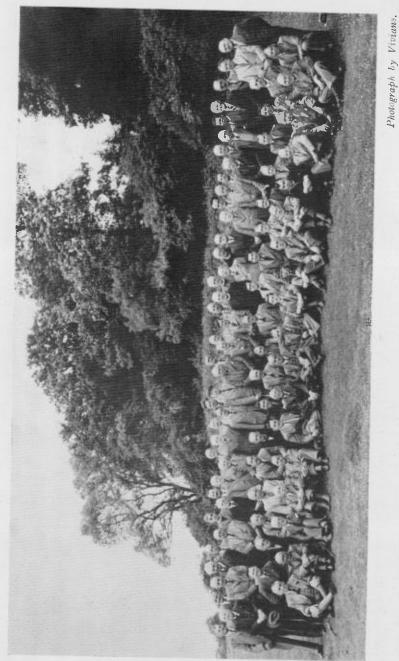
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FIELD

WOOLHOPE NATURALISTS'



Woolhope Naturalists' Field Club (Herefordshire)

PROCEEDINGS, 1951.

FIRST WINTER MEETING, THURSDAY, 25TH JANUARY:—The President, the Rev. B. B. Clarke, in the chair. The minutes of the meeting on the 30th November, 1950, were read and confirmed. The members stood in silence in memory of Prebendary J. S. Jobling, Mr. Walter Jones, and Sir Geoffrey Cornewall, who had recently passed away

The report of the committee on County Planning was adopted. Preb. G. S. Stockley, Messrs. W. A. Braunston, L. A. K. Harris, and E. A. Walter were declared elected members of the Club.

The Secretary of the Mycological Society wrote to say that members of the society would join the Club at the Centenary Dinner.

The President exhibited a specimen of a rare Bryozoa from the Aymestrey Limestone at Perton which Dr. K. P. Oakley had identified as *Ptilodictya lanceolata*, and which was to be placed in the national collection at the British Museum.

Major A. E. W. Salt then read a paper on the manuscript "Diary of Elizabeth Greenly", which is printed on pp. 238-249.

SECOND WINTER MEETING, THURSDAY, 22ND FEBRUARY:—The President, the Rev. B. B. Clarke, in the chair. The minutes of the meeting on 23rd January were confirmed. The members present stood in silence in memory of Mr. Nugent Armitage, who had recently passed away.

Major A. E. W. Salt recorded the finding of a Roman coin at

Bacton.

Sir Richard Cotterell, Bt., then read a paper on "The Woodlands of Herefordshire", a digest of which is printed on pp. 249–252.

Mr. J. E. Cheney was proposed for election as a member.

THIRD WINTER MEETING, TUESDAY, 13TH MARCH, 1951:—The President, the Rev. B. B. Clarke, in the chair, with a large attendance of members and friends. The minutes of meetings of 25th January and 22nd February, 1951, were read and confirmed. The following were declared elected: Mr. D. W. James, Mr. J. N. Jackson.

A letter was received from Miss K. Kenyon, F.S.A., who stated that she would be resuming excavations at Sutton Walls on 28th March and would be glad of local assistance. She was also anxious to ascertain the distribution of "duck" pottery and asked for financial assistance from the Club to enable excavations to be made at Credenhill, Aconbury, and Dinedor. The matter of financial assistance was left for the Central Committee to discuss.

The Hon. Secretary, Mr. F. C. Morgan, announced with regret the death of Mr. E. A. Moir of Storridge and that he had sent a letter of condolence to the family on behalf of the Club.

Preb. S. H. Martin then read a paper on "Sutton's Self-Government in the 18th Century". This is printed on pp. 252-259.

The President, the Rev. B. B. Clarke, in the chair with a large number of members present. The minutes of the meeting of 12th December, 1950, were read and confirmed.

It was announced that Mr. C. E. Brumwell had passed away. Mr. Shaw Wright spoke of the debt the Club owed to him and proposed that a letter of sympathy be sent to the widow. This was seconded by Mr. Templer, and carried.

The President read an extract from Mr. George Marshall's will offering his library and the sum of £250 to maintain it. He said that the Central Committee had recommended that fifty pounds be spent as soon as possible on the repair of certain volumes, and the remainder of the sum be invested.

It was proposed by Major A. E. W. Salt, seconded by the Rev. G. Ifor Jones, and carried, that the bequest be gratefully accepted and that the recommendations of the Central Committee be adopted.

On the proposition of Major A. E. W. Salt, seconded by Capt. O. B. Wallis, the Central Committee's recommendation that £25 from the Merrick Bequest Fund be allotted for the work of excavation at Sutton Walls was agreed to.

It was agreed that the application from the Herefordshire Botanical Society for affiliation be approved on the same terms as those arranged with the Ornithological Society.

The President announced that the British Association would be holding its Annual Meeting in Edinburgh from 15th August and that six members of the Club could attend.

A letter from the Town Clerk was read asking the Club to commemorate the Festival of Britain by presenting a seat on the river bank or by planting a tree. The former would cost £7 and the latter £2. It was proposed by Mr. Charles Evans that a seat be provided. An amendment proposed by Mr. Shaw Wright, seconded by Mr. Templer, that a tree be planted was carried.

A letter from the Rev. A. J. K. Goss was read objecting to the planting of trees on the hills around Kington. It was proposed by Mr. Oakey, seconded by Rev. G. Ifor Jones and agreed, that the sub-committee on County Planning deal with this matter.

The President then read his

PRESIDENTIAL ADDRESS.

May I begin my presidential address with some account of the Club's activities during the year. As I think was expected when you very kindly did me the honour of electing me president, we have this year brought geological interests well to the front. This study along with botany is, I believe, one of the two original purposes of our society. I trust, however, that this has been done without excluding other equally important interests.

In the Field Meetings we saw representative sections of most of the rock formations available within easy reach of Hereford. The Silurian rocks were seen at Woolhope, the Devonian rocks at Dinmore, the Carboniferous at Titterstone Clee, the Permian at Haffield and the Trias at Bromsberrow. We saw also one of the classic glacial features of England at Ironbridge. Ladies Day was given over to the archæology of the Roman town of Caerwent and the legionary fortress of Caerleon. We have not neglected ecclesiastical architecture, for on our various journeys we saw Much Marcle Church, the wall paintings at Kempley, the ruins of Buildwas abbey, and Leominster priory with its beautifully written registers. Nor was domestic architecture forgotten, for Preston Court, Birtsmorton Court and the fine ceiling at Aston Botterell were all visited and inspected.

In the papers also we have had a varied diet. We began with an important paper by Miss Kenyon on the pre-Roman settlement at Sutton Walls. Geology had its place in Mr. Dineley's paper on the northern part of the Old Red Sandstone of the Welsh Borderland, and botany in Sir Richard Cotterell's paper on Herefordshire woodlands. Historical papers have been given us by the Rev. J. C. Dale, Major A. E. W. Salt and Prebendary Martin, and in the field of architecture our President-elect showed us some new photographs of the bosses in the north transept of the Cathedral.

Various official bodies have sought the advice of the Club during the year, the Town and Country Planning committee on the nature reserves and conservation areas they were proposing in the county, the Office of Works about the official list of Historical Monuments, and the City Council about the footpaths they propose to schedule within the city. In all these cases committees were appointed which examined the material sent to us with great care, and we were able to make observations and suggestions which I trust were of value.

At the Winter Annual Meeting the suggestion was approved that the Club should prepare a comprehensive volume on "The

Natural History and Archæology of Herefordshire" in commemoration of its hundred years. This is a very big thing for a provincial society to undertake but I am quite sure we have within the Club both the ability and knowledge to make it a success.

At this meeting also we had the annual reports on botany and ornithology by Major Salt and Dr. Walker. I feel this most carefully collected information regularly recorded is of utmost value.

I must refer briefly to the passing of Mr. George Marshall, F.S.A., for thirty years Secretary of our society and President in 1922. I think everyone recognised Mr. Marshall as the foremost antiquary in the county. Our Transactions will preserve for posterity much of his best work, though his interest was not only in archæology but also in the Club itself as a means of its study. It was my privilege to see him from time to time and he enjoyed nothing better in his last months than to hear of all we were trying

Now may I turn to the second part of my address which is to offer a small piece of original research on the "Geology of Dinmore Hill ".1

At the conclusion of his address Mr. Clarke vacated the chair and handed the newly presented badge of office to the President-Elect, Mr. F. C. Morgan, who sincerely thanked the retiring President for his address, which he said was a wonderful contribution to science, and also for his exceptionally valuable services during the past year.

The Treasurer, Mr. P. J. T. Templer, after referring to the high cost of printing, presented his statement showing that the balance in hand on 31st December, 1950, was £308 11s. 4d., compared with 4337 18s. 10d. on the 1st January, 1950. It was proposed by Mr. Charles Evans, seconded by Dr. Wood and carried that the accounts be accepted and that Mr. Widgery be thanked for his services as auditor. The Hon. Treasurer was also thanked for his services.

The Assistant Secretary stated that at the end of 1950 there were 349 members made up as follows:—Honorary members, 12; Ordinary members, 330; Library members, 7. During 1950:-Members died, 7; Members resigned, 7; Members struck off, 4; New members, 24. Increase of membership over 1949: 9.

The Librarian presented his report for 1950. He said that only 24 books had been borrowed but that did not truly represent the use made of the library as members visited the Club room to consult works there, and also many non-members were allowed to borrow books for reading in the City Reference Library.

The following were proposed for membership:—Mr. C. F. Roberts, Rev. J. C. Dale, Mr. T. S. G. Barret.

It was proposed by the Rev. B. B. Clarke, seconded by Mr. Charles Evans and carried, that the first field meeting be to the Welsh Newton district on 24th May.

It was proposed by Col. T. W. M. Johnson, seconded by Mr. Ockey and carried, that the first half-day meeting be to the Sutton area on 9th June. It was resolved that Ladies' Day should be on 19th July to the Cotswolds. The following places were selected for the remaining meetings on days to be arranged :- Bromyard and Weobley (whole days), Woolhope (half-day).

FIRST FIELD MEETING, 24TH MAY, 1951-WELSH NEWTON DISTRICT:-The President, Mr. F. C. Morgan, and about seventy members and friends were present. Appologies were received from Mr. F. J. Ashby, Rev. D. Gregory Buisseret, the Dean of Hereford, Mr. C. Cadbury, Major J. H. Franklin, Mr. A. L. Mann, Rev. A. L. Moir, Alderman C. Monkley, Messrs. C. R. Venning, T. H. Yeomans, and R. Hill.

The party left Hereford City Library at 10.0 a.m. and proceeded via Pontrilas to Kentchurch Court, visited by permission of Mrs. Lucas-Scudamore who kindly showed the party over this interesting house. Many fine pictures and old furniture were seen.

The next stop was at Welsh Newton Common, to see the famous beech tree, now, with a quarter of an acre of ground, presented to the County Council. Measurements of the tree were taken and are: - Circumference of trunk, 5 ft. above ground, 18 ft. 3½ in.; Span, 100 ft.; Approximate circumference of the whole tree, 90 yards,1 Lunch was taken under this fine specimen of a beech tree.

The party then proceeded via Monmouth to Trelleck. Between these places the weather after an unauspicious start became clear, and remarkably fine views were obtained. At Trelleck the church, mediæval tumulus, ancient well and prehistoric stones were seen.

At Golden Hill a stop was made to see an intrusion of igneous rock which was described by the Rev. B. B. Clarke. He said that the rocks at which they were looking were quite a usual form of igneous intrusion. They were part of a dyke formed by molten rock welling up from great depth to fill a crack in a region of tension. There were, however, two unusual features about this particular

¹ The following are the measurements taken by Mr. R. S. Gavin Robinson in 1938 for an exhibition at the Three Counties Show :- Total height, 72 ft. 0 in.; Greatest branch spread, 103 ft. 0 in.; Clean length of butt, 21 ft. 0 in.; Girth at 5 ft. from ground, 17 ft. 5 in.; Cubic content of butt, 394 cubic feet. For other references to this tree see Transactions, 1914, p. 74, and for 1929, p. lxxxix (where a record of the agreement between the Club and Mr. W. H. Perkins in 1916 concerning the preservation of the tree will be found).

¹ Printed on pp. 222-237.

intrusion. Members would see near the edges fairly large masses of the country rock embedded in the dyke rock suggesting the intrusion took place under considerable pressure, the molten rock tearing fragments from the sides as it progressed. The other unusual feature was the dyke rock itself, a *Monchiquite*. This is the only example known in England or Wales. Examples occur in Scotland, but it is named from the *Serra Monchique* in Portugal. Most dyke rocks are very finely crystalline in texture but this one, while having a fine matrix, had extremely large crystals of Olivine, Augite, and Biotite in it. Members searched for good specimens of these minerals and also examined the junction of the dyke where the country rock had been burned by the intrusion.

Tea was taken at the Beaufort Arms at Raglan where the business of the Club was transacted. The President mentioned the death of Mr. G. M. Brierley and the members stood in silence. The minutes of the meeting held on 13th March, 1951, were read

and confirmed.

Mr. J. E. M. Mellor, who is compiling the section on mammals in the Centenary volume said that he would be pleased to have reports of rare mammals, particularly martens and of bats. He

also exhibited specimens of two kinds of field mice.

The President stated that it appeared unlikely that enough members and friends would attend the Centenary Dinner to necessitate having the Shire Hall and that the Green Dragon could not accommodate the Club until October. Capt. O. B. Wallis proposed that the Shire Hall be used. An amendment, proposed by the Rev. B. B. Clarke, seconded by Mr. I. Cohen, that the dinner he held at the Green Dragon was carried.

The following gentlemen were proposed for election:—Rev. A. B. Canning, Mr. W. A. R. Dennison, Mr. Arthur Slatter, Mr. R. Baker, Mr. F. Poole, Mr. H. Thorn, Rev. Norman A. R. Cooper,

Mr. Gerald Ealand, Mr. R. Gordon.

HALF-DAY FIELD MEETING, SATURDAY, 9TH JUNE, 1951—SUTTON DISTRICT:—The President, Mr. F. C. Morgan, and a large number of members and friends were present. Apologies were received from the following:—Mr. A. U. Zimmerman, Rev. D. G. Buisseret, Brig. N. Copland-Griffiths, Mr. T. Herbert Yeomans, the Dean of Hereford, and Mr. Templer.

The City Library was left at 2.15 p.m. and the party proceeded to Sutton St. Michael (Wergins Stone being pointed out en route); here Prebendary S. H. Martin described the church and

its history.

The next stop was at Sutton Walls, where the President gave an account of the recent excavations by Miss Kenyon. Here tea was partaken. The party then went on to Burghill church, which



Photograph by I. Cohen.

BEECH TREE, WELSH NEWTON.

Given to the Herefordshire County Council with
4 acre of ground upon which it stands by
Mr. C. E. Hart, Woodgate, Nr. Coleford, 19th
April, 1951.

was described by the President. Two features of special note were the chancel screen and the monumental brasses. This concluded the meeting.

HALF-DAY FIELD MEETING, SATURDAY, 23RD JUNE, 1951—WOOLHOPE AREA:—The President, Mr. F. C. Morgan, and a large number of members and friends were present. Apologies were received from the following:—Messrs. Templer, Johnstone, Heath, Wallis and Brig. N. Copland-Griffiths.

In three omnibuses and a number of private cars the party left the City Library at 2.15 p.m. The first stop was made near Stoke Edith at the little hamlet of Perton. The President reminded members that it was the wealth of natural history in the Woolhope Dome that largely prompted the formation of the Club a hundred years ago. It was felt to be fitting therefore that the Centenary photograph should be taken in the Woolhope area. During the fternoon they would see some geology and botany, two of the original pursuits of the Club. He then called on the Rev. B. B. Clarke to describe the geology of the rocks nearby. Mr. Clarke said that these were the Upper Ludlow Shales, the highest division of the Silurian system, and were one of the richest fossil bearing formations in the county. He described some of the fossils that might be found and went on to point out the junction between the highest Silurian and the lowest Devonian rocks. In the latter at Perton was a plant bed containing some of the earliest known examples of Devonian plants, a form of life which begins in these rocks. Members and their friends eagerly sought for fossils and almost everyone found the three characteristic ones, Chonetes striatella, Rhynchonella nucula and Orthis lunata; others found rarer ones also. Before leaving some members went to find the plant bed lower down the hill and one specimen of Pachytheca was found.

The party then rode to the top of the escarpment of the Aymestry Limestone and there, with Dormington wood a classic locality for both geologists and botanists in the background, and the dip slope of the escarpment making a convenient sloping piece of ground on which to stand, the Centenary photograph was taken by Messrs. Vivian. (See illustration.)

There followed a pleasant walk through the wood to Dormington quarries, by permission of Mr. H. T. H. Foley, where a picnic tea was eaten. The party then split up into three groups, one remaining in the quarry, where the Rev. B. B. Clarke explained that the fine quarry in which they stood was part of the inner escarpment of the Woolhope Dome made by the Wenlock Limestone. This quarry had long been a favourite locality for corals. Many specimens were found of the chain coral, Halysites catenularis, also Favosites gothlandica and Heliolites interstinctus. One youthful member of the party found a perfect Spirifer plicatellus.



Photograph by F. C. M.
THE WENLOCK LIMESTONE AT DORMINGTON WOOD,
WOODHOPE.

Prebendary S. H. Martin led another group to Woolhope church. Major A. E. W. Salt and Mr. F. M. Kendrick assisted by Mrs. Whitehead led the third group in search of plants. The following were recorded:—Fleabane (Erigeron acris L.), Yellow wort (Blackstonia perfoliata, Huds.), Columbine (Aquilegia vulgaris, L.), Lily of the valley (Convallaria majalis, L.), Broad leaved helleborine (Epipactis helleborine, Grautz), Butterfly orchis (Habenaria bifolia, Br.), Wayfaring tree (Viburnum lantana), Guelder rose (Viburnum opulus, L.). There was also a Gentian, probably Gentiana campestris L., as others have been reported from the area but as it was not in flower it could not be confirmed.

FOURTH FIELD MEETING, THURSDAY, 19TH JULY, 1951—COTSWOLD DISTRICT (LADIES' DAY):—The President, Mr. F. C. Morgan, and about one hundred members and guests attended. Apologies for absence were received from:—The Very Rev. the Dean of Hereford, Brig. N. Copland-Griffiths, Rev. G. Ifor R. Jones, Mr. R. Gray, Mr. T. H. Yeomans, The Archdeacon of Hereford and Major Franklin.

Four omnibuses and a number of private cars left Hereford at 9.30 a.m., the first stop being at Tewkesbury, where coffee was partaken at the Abbey Mill restaurant.

The next stop was at Hailes Abbey where Col. T. W. M. Johnson gave a short history of the ruins. The party also saw the museum and Hailes church.

A picnic lunch was partaken en route for Snowshill, where the Cotswold Manor House was visited. The grounds of the house were much admired, and also the unique collection of objects of archæological interest in the house. The owner, C. Wade, Esq., who kindly allowed the visit, stated that it was his intention to present the house and contents to the National Trust later in the year.

The party then proceeded to Chipping Camden, where the church was visited, followed by tea at "Seymour House". Here the business meeting was held. The minutes of the meetings of 24th May, 9th June, and 23rd June were read and confirmed. The following new members were declared elected:—Rev. A. B. Canning, Messrs. W. A. R. Dennison, Arthur Slatter, R. Baker, F. Poole, H. Thorn, Gerald A. Ealand, and G. Gordon and the Rev. Norman A. R. Cooper.

The following gentlemen were proposed for election:—Professor J. H. Hutton, Mr. E. H. Cope, Mr. E. Proe, Mr. Richard J. H. Cole, Mr. E. L. Lambert, Mr. L. Harris, Mr. S. R. W. Perry.

A letter from the County Planning Officer had been received thanking the Club for the map of the scientific areas within Herefordshire supplied by Major A. E. W. Salt. Also a letter came from a relative of the late Mr. G. M. Brierley thanking the Club for its expressions of sympathy, and one from Mrs. Lucas-Scudamore saying how pleased she had been to welcome the members at their recent visit to Kentchurch.

The President announced that an anonymous donor had

given the Club the sum of twenty-five pounds.

The party then proceeded to Mickleton, the site of the Dover's Hill games being pointed out two miles after leaving Chipping Campden. At Mickleton the church was visited and an account of the Rev. Richard Graves, related to the Hopton family of Herefordshire, and his 18th century novel, "The Spiritual Quixote," was given by the President. The return journey to Hereford was made via Broadway, Tewkesbury and Ledbury.

FIFTH FIELD MEETING, THURSDAY, 23RD AUGUST, 1951—BROMYARD AND MATHON DISTRICT:—The President, Mr. F. C. Morgan, and about sixty members and guests were present.

Leaving the City Library at 9.30 a.m. the party made for Bromyard, where the church was visited. The President described its architecture and mentioned the pre-Conquest figure of St. Peter over the porch and the modern windows by A. K. Nicholson Studios, which were much admired.

The next stop was at the moated house at Lower Brockhampton, which was bequeathed by the late Col. T. Lutley to the National

Whitbourne was the next place visited, where the church was seen. Then afterwards Whitbourne Court, adjoining, was visited by permission of Mrs. J. Hollick. The President gave a short history of an earlier building which stood on the site and was one of the residences of the bishops of Hereford. He also described an early "Jules Verne" type of story written by Bishop Francis Godwin (1562–1633) entitled "The Man in the Moone, or a discourse of a voyage thither by Domingo Gonsales," 1638. Published by "E.M." after the author's death. Lunch was eaten in the grounds by permission of Mrs. Hollick.

The next stop was at Mathon church, ably described by the

Vicar, the Rev. P. B. Thorburn, who said:-

"Mathon is mentioned in Domesday Book. The church was built by the monks of Pershore Abbey—a Benedictine foundation—about 1086. The old name was Matma. The parish was in the hundred of Doddingtree, and one hide was in Radelow hundred in Herefordshire. The original dedication of the church was to St. Margaret but at the dissolution of the monasteries under Henry VIII the dedication was changed to St. John the Baptist—or perhaps this change was made later, at the Reformation, when there seemed to be a general desire for names of New Testament saints. In 1542 the manor and church were alienated to the Abbey of Westminster, the Dean and Chapter appointing curates at £8 per annum and retaining land and income value £50 per annum. The Dean and Chapter still hold the advowson. The church is largely Norman with Early English additions. The chancel is late 12th century and so is the priest's door on the south side; but the nave

is 11th century-very much as the Normans built it. The tower is late 14th century and so is the fine timbered roof. The south porch is 15th century. There is an interesting tomb dated 1617 on the north side of the Sanctuary which has obviously been moved from elsewhere in the church. The pulpit is a semi-octagonal Jacobean pulpit of the late 16th or 17th century. This was in a bad condition without base or steps in 1943 and the present graceful pedestal, steps, and hand-rail, were executed by Mr. Walter Davis of Hereford, as were also the oak communion rails and riddel posts for the altar. The renovations then carried out cost £350. The six bells were cast by Abel Rudhall of Gloucester in 1760 and were on an oak bell frame of the same period. This had become unsafe and a new iron and steel bell frame and new head-stocks have been provided at a cost of £700 and were re-dedicated by the Archdeacon of Hereford last November. There is an interesting church chest under the tower, a photograph of which appears in both the Worcester and Hereford County Histories. There is the base of an old preaching cross and a fine old yew tree-possibly as old as the church-in the churchyard,"

The party proceeded to Bosbury church, where the tombs of the Harford family, made by John Gildon of Hereford, were seen and described by the President. The remains of the churchyard cross, damaged by the fall of a tree in 1949 (see p. 210), were inspected. The meeting ended at Woolhope, where the party was entertained to a sumptuous tea by the Woolhope Women's Institute in a room decorated with flowers. To celebrate the Club's centenary members of the Institute wore mid-19th century dresses and curtsied in welcome to the President and Members. They had also arranged an exhibition of village antiquities. Capt. O. B. Wallis and Mr. P. J. T. Templer thanked the W.I. President, Mrs. Milne, and the members for their wonderful hospitality.

The party then returned to Hereford.

SIXTH FIELD MEETING, THURSDAY, 27TH SEPTEMBER, 1951—WEOBLEY DISTRICT:—The President, Mr. F. C. Morgan, and some sixty members and guests were present.

Leaving the city at 10 a.m. the party proceeded to Pembridge. There the church was visited and was described by the President and the ancient detached bell tower was inspected. Before leaving, the market hall was seen and described.

The next stop was at Dilwyn church. It was described by the Vicar, amplified by the President, who spoke of the great age to which residents of Dilwyn had lived due, so it was said, to the local brew of cider. The names of various long-lived residents as recorded by Dingley in his *History from Marble* in the seventeenth century was read. He records curious statements about them all.

The party then went on to Weobley, where it was met by Major A. E. W. Salt, who pointed out interesting houses, including the old vicarage and old bank. Lunch was eaten in the hall behind the "Unicorn" Inn. Afterwards Major Salt led the way to the castle site, where he traced Weobley's history. The "Throne" was next visited and the room where Charles I slept was seen. A short ride took the party to "The Ley" built by James Brydges in 1589, where the fine front was much admired.

The next stop was at Garnons. Sir Richard Cotterell was unable to meet the party as he intended. A quarry, described by Rev. B. B. Clarke, and the woods were seen under the guidance of Mr. P. R. H. John, Sir Richard's agent, who pointed out trees in various stages of growth. Some oaks planted it is believed in 1815 were remarkable for their straight boles.

The party then went on to Moorhampton for tea, after which the business meeting was held. The minutes of the meetings of the 19th July and 23rd August were read and confirmed. The President mentioned Mr. E. Ockey's death and the members stood in silence in his memory. It was agreed that a letter of thanks be sent to Sir Richard Cotterell, also that a letter of condolence be sent to the Rev. H. W. J. L. R. Haywood of Clehonger, whose wife had died recently.

This concluded the meeting and the party returned to Hereford.

FIRST AUTUMN MEETING, THURSDAY, 1ST NOVEMBER, 1951:—The President, Mr. F. C. Morgan, in the chair with a good attendance of members and visitors. The minutes of the meeting of 27th September were read and confirmed. Apologies were received from the Ven. A. J. Winnington-Ingram, Major A. E. W. Salt, the Rev. B. B. Clarke and Mr. Charles Evans.

¹ The Rev. H. E. Grindley has sent the following note upon the cross:—
"When I was Vicar, 1917 to 1927, there was an old mason named Field who used to boast that he had repaired the head, broken, I think, he said into twenty-seven pieces. How it was broken I never heard. The pedestal was repaired in 1921-2 at the restoration of the church after the fire of 1917. Stone was given by the late Mr. William Lane from the old canal lock on his farm. Unfortunately the skilled mason, to make a neat job of it, cut away the original roll moulding. With much misgiving the shaft was dressed with lias lime mortar. It was rapidly crumbling.

[&]quot;As to tree felling; no damage was ever done. A large branch of the overhanging tree which was brushing the church roof was safely removed. At one time a cross on a modern tomb was broken by a felled branch."

¹⁷th August, 1951. H. E. GRINDLEY.

¹ The Vicar, the Rev. H. C. Bender, has contributed the following extracts from the Register confirming Dingley's statements:—

^{1657—}Jacobus Baddam ætatis 105 de Browne sepultus fuit octavo die Maij. 1659—Thomas Melling de Baches sepultus fuit decimo quinto die Decembris. 1663—Gulielmus Dykes de Luntley sepultus fuit decimo septimo die Januarij. 1666—Anna filia Johannis Tayler de Stockmore, et Anna uxoris sepulta fuit decimo Septimo die Martij. 1666—Henricus Sayse de Dilwyn sepultus fuit tertio die Maij in cemeteris. 1674—Richardus Taffley senior de Newton sepultus fuit quarto die mensis Aprilis ætatis suo 103.

The Vicar also states that the "Norman font" is said by his verger to have been under the 15th century font, when this stood in the middle of the church. (See Marshall, "Herefordshire Fonts", 1951, p. 66.)

The following were declared elected:—Mr. C. H. Thompson, Dr. D. A. Chandler, Rev. C. G. B. Ap Ivor.

The following were proposed for election:—Col. H. N. Jenner, M.B.E., Mr. D. R. Dudley, M.A., Air Commodore Douglas Iron.

A paper on "Hereford Fishes", for the Centenary volume, by Mr. J. Arthur Hutton was read in his absence by Col. T. W. M. Johnson. This was most interesting and instructive. Afterwards the President drew attention to the report of the capture of a carp, 31 lb. 4 oz., which had been introduced as a small fish into a pool at Bernithan Court by Col. Barnardistan in 1934.

The President then showed a series of slides illustrating the

misericords of St. David's cathedral.

Before and after the meeting there was an exhibition of Civil War Papers, by Major O. C. Hopton.

A fine fossil Trilobite from Huntington was also exhibited.

Second Autumn Meeting, Thursday, 22nd November, 1951:—The President, Mr. F. C. Morgan, was present with a good attendance of members and friends. The minutes of the meeting of the 1st November were read and confirmed. The President announced with regret the death of Mr. Robert Gray and the meeting stood in silence. An apology for absence was received from the Rev. G. Maudsley.

The President announced the gift of two volumes of estate maps and records by the late Sir William Cornewall. These were on exhibition. The freshness of the colours of these maps, which are dated 1771, was remarkable.

The following gentlemen were declared elected:—Col. H. N. Jenner, Mr. D. R. Dudley, Air Commodore Douglas Iron,

The following was proposed for election:—Mr. Edward R. Wood, Preb. S. H. Martin reported the find of an amount of Romano-British pottery in a trench four feet square at "Hillcrest", about a mile from Sutton Walls. It had been dated by the Ashmolean Museum as belonging to the third century, A.D.

During renovations at Byford church a mural painting, believed to be that of St. Margaret, had been discovered. Dr. F. C. Eeles had been consulted with regard to its preservation. This was reported by the Rev. B. B. Clarke. The President, whose photograph of the painting was on view at the meeting, considered it the finest in the county.

The President announced that space had now been made in the Woolhope Room for the George Marshall library and it was hoped to instal this very shortly.

Mr. J. E. M. Mellor said that he would be very glad if a member of the Club would act as observer of mammals in the Bromyard

district.

The Rev. B. B. Clarke, M.A., M.Sc., then read his paper "The Geology of Herefordshire" which was illustrated with lantern slides. This followed the geology from earliest times and was made much easier to understand by the excellent diagrams shown. In his vote of thanks the President mentioned the great scientific value of the paper, which has been written for the Geology section of the Centenary volume.

The vote of thanks was seconded by the Ven. A. J. Winnington-Ingram, who remarked that though he was no geologist he had been able readily to understand the subject matter by Mr. Clarke's

clarity of explanation and his diagrams.

THIRD AUTUMN MEETING, 6TH DECEMBER, 1951:—The President, Mr. F. C. Morgan, was in the chair, with a good attendance of members and guests. The minutes of the meeting of 22nd November, 1951, were read and confirmed. Apologies were received from Mr. C. Cadbury, the Rev. B. B. Clarke, Rev. A. L. Moir and the Town Clerk. Mr. E. R. Wood was declared elected.

A portion of a 15th century tile from the Nunnery at Limebrook

was exhibited by Major A. E. W. Salt.

Mr. J. E. M. Mellor again appealed for assistance in observing mammals, especially in the north-east and south-west of the county and in the Kington rural area. The President mentioned that a very useful book Mammals of England was published by H.M.S.O. for 2/6.

Dr. C. W. Walker then read his paper on "Changes in the Bird Life of Herefordshire", written for the Centenary volume, which was illustrated by lantern slides. After paying tribute to past ornithologists of the Club, he first described the birds which had diminished greatly or had become extinct in the County and then those which had increased, and new residents.

He was thanked by the President, and answered various

questions.

THE WINTER ANNUAL MEETING, 13TH DECEMBER, 1951, at 3.0 p.m.:—The minutes of the meeting of 19th April, 1951, were read and confirmed. The President announced the death of Miss Maude Bull, daughter of the late Dr. H. G. Bull and it was agreed that he should send a letter of condolence to her sister.

¹ Since this meeting Mr. P. Lasko of the Department of British and Medieval Antiquities at the British Museum is inclined to confirm that the Byford painting depicts S. Margaret of Antioch, a 4th century saint. He says the painting is a fine piece of work of the first half of the 14th century and, stylistically, would appear to him to belong to the second quarter of that century, when the first signs of the more solid and three dimensional styles of the early 14th century Florentine painting began to penetrate Northern European art. He adds that the lattice border may be a later edition

A pamphlet on the destruction of ancient monuments had been received from the Council of British Archæology. Copies could be obtained free of charge and the President undertook to obtain 25.

The following officers for 1952 were elected:—President, Major A. E. W. Salt, M.A.; Vice-Presidents, The Ven. A. J. Winnington-Ingram, The Rev. B. B. Clarke, Mr. G. H. Butcher, Dr. C. W. Walker; Committee: The four retiring members were re-elected as follows, Mr. F. M. Kendrick, Mr. Charles Evans, Mr. A. U. Zimmerman, Mr. I. Cohen; Hon. Treasurer: Mr. P. J. T. Templer; Hon. Secretary: Mr. F. C. Morgan; Librarian and Delegate to the Society of Antiquaries: Mr. F. C. Morgan; Hon. Lanternist: Mr. B. Butcher; Editorial Committee: Ven. A. J. Winnington-Ingram, Mr. W. H. Howse, Major A. E. W. Salt, The Hon. Secretary; Hon. Auditor: Mr. H. Slater Widgery.

The places for the first two field meetings for 1952 were chosen as follows:—(a) Westonbirt Arboretum. Proposed by Mr. R. S. Gavin Robinson, seconded by Dr. Langford. (b) Abbeydore and De La Haye Forest. Proposed by Mr. P. J. T. Templer, seconded

by Preb. S. H. Martin.

It was agreed that two half-day field meetings be held as in

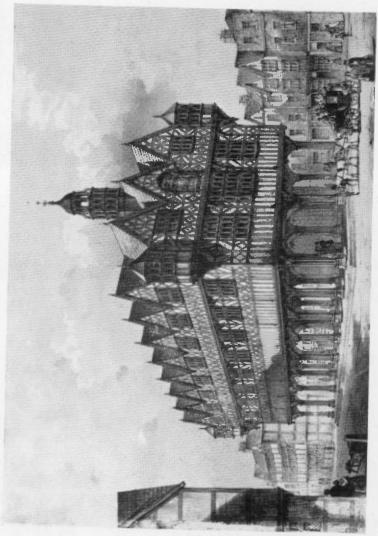
1951.

It was proposed by the Rev. B. B. Clarke, seconded by Preb. S. H. Martin, and resolved, that invitations be sent to secondary and grammar schools in order that interested pupils could attend the Saturday field meetings.

Mr. I. Cohen read his report on Archæology (see pages 267-274). Major A. E. W. Salt gave his report on Botany (see page

276).

Finally Mr. F. C. Morgan showed lantern slides of drawings of local places made by William Stukeley in the early 18th century, preserved in the Bodleian Library, Oxford.



Clayton, restoration, suggested MARKET HALL for North Elevation and of West Perspective

Woolhove Naturalists' Field Club

PAPERS, 1949.

THE OLD MARKET HALL, HEREFORD

By NORMAN DRINKWATER, A.R.I.B.A.

(Read 27th January, 1949.)

The Old Market Hall of Hereford was undoubtedly one of the finest examples of its type in the country; its importance functionally as a public building and its richness in design and craftsmanship both render the demolition and practically total disappearance in 1862 a deplorable fact.

In its original three storeved state it was the chief civic edifice of the city and comprised the market in the open columned ground floor, magistrates' chambers and assize court on the first floor, and finally the City Guilds on the second floor.

Dingley in his 17th century work refers to these guilds, including notes on their arms and some amusing mottoes and verses, together with a sketch of the Hall which will be referred to later.1

1 Dingley's History from Marble, pp. ccxvii, ccxviii. He states: "This is a fair Timber Structure supported by Columns of wood. Here sit the Judges of Assise over the Piazza or Walk. In ye uppermost part of this building are Chambers for several Corporacons of this City with their Arms and These proper Verses of scripture and devices over their Doors. The SKINNERS have the representation in painting of Adam and Eve and these words, Unto ADAM also and to his wife did the Lord God make coats of skins and cloathed them. Gen. ch. 3, ver. 21.

The TANNERS. This send therefore to Joppa and call hither Simon whose surpame is Peter, he is lodged in the house of one Symon a Tanner by, etc.

BUTCHERS. the motto. Omnia subjecisti sub pedibus oves & boves. Psal. 8, v. 6 & 7.

GLOVERS. They wandred about in sheepskins and Goatskins, being destitute, etc. Hebrews 11, v. 37.

BAKERS. Give us day by day our Dayly Bread. Luke 11, v. 3d.

CLOATHIERS or Cloath workers whose Arms are, sable a Chevron ermyne in chief two crabets argent in base a beazel [=teazel], or, with supporters & Crest have this motto MY TRUST IS IN GOD ALONE, besides about their chamber these verses (I suppose set up by one JOHN LEWIS once master of the company here) in old English Character, such as it is.

Cloathing doth other trades excede as farr As splendid Sol outshines the dullest starr By it the poor doe gain their lively hood Who otherwise might starve for want of food.

[Continued on next page.

The guilds are also referred to by Clayton who states that there were fourteen trading companies in the city, viz., the Bakers, Barbers, Barber-Surgeons, Blacksmiths, Braziers, Butchers, Clothiers, Coopers, Cordwainers, Glovers, Joiners, Mercers, Tanners, Tylers and Weavers.¹

The building remained three storeyed until the end of the 18th century, when the top floor was deemed unsafe, it was then reduced to a two storeyed edifice, altered in appearance and stuccoed, in which condition it remained, gradually losing all its original elevational splendour, until its demolition in 1862.

The existing remains are comparatively few, but sufficient with the aid of prints, photographs and scale details by Clayton,² the 19th century Hereford architect, to reproduce a sheet of reconstructive drawings.

At Holmer Hall are four of the original support columns with moulded bases and moulded or carved capitals. These are now set out as the angle posts of a square aviary; between the posts, and on each side, at eaves level, are two original carved spandrels with a carved pendant between them at the apex.

In Lyde House, just north of Holmer Hall, are some reset moulded beams and four carved brackets. In the glazed porch of this house are re-used moulded wood mullions from the windows. In the loft of the stabling are two loose oak spandrels; they are internal spandrels and are plain compared with the external type.

South west of Hereford, in the parish of Treville, at Whitfield Court, are a number of the shafted columns now re-used as posts of a cow-byre in the grounds of the estate.

Farmers by it make money and do pay, Their Landlords duly on the very day The Clothiers they grow rich shopkeepers thrive The Winters worsted and man kept alive Advance but Clothing and wee need not sayle To Colchus against dragons to prevayle Or Yoke wild Bulls to gain the Golden Fleece As JASON did who stray'd so farr from GREECE. Promote the Staple Trade with skill and Art The Fleece of Gold will satisfye your heart. Concenter that the Weavers may go on John LEWIS swears by Jove it shall be done.

The Skinners were incorporated in the first yere of ED. III and made perfect fraternity in the 18 of Rich ye2d by their Arms they bear Ermyne on a Chief Gules 3 ducall Crowns or, lin'd of the first their Motto is the same with that of the Goldsmiths, TO GOD ONELEY BE ALL GLORY.

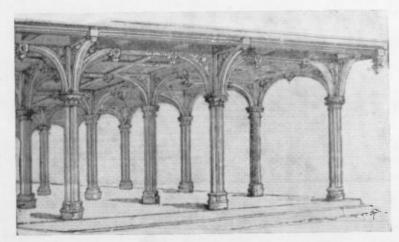
The Mercers here for their arms have Gules, a Maydenhead flesh & blood coulour, or proper crowned or, a Wast or body coat, Purpure, issuing out of Clouds proper, within a bordure nebulee or."

¹ A Collection of the Ancient Timber Edifices of England by John Clayton, Architect. (Published 1846.)

2 Ibid.



Photographs by N. Drinkwater
HEREFORD MARKET HALL.
Capital and part of Spandrel, and Aviary showing Spandrels and
Pendant at Holmer Hall.



HEREFORD MARKET HALL.

Detail from The Civil Engineer and Architects' Journal, 1838, lent by Mr. C. Evans.

In the main entrance hall of the City Museum and library are two oak quarter jacks and bells of early 18th century origin.

The Alfred Watkins collection of photographs, now in the Library, has one negative showing two loose carved spandrels and one bracket undoubtedly from the Old Market Hall. It is not certain where these remains are at the moment, or where they were photographed, but it is thought they may have been in the premises of a local antique dealer.

The historical data from documentary evidence is rather meagre, especially that required to establish the date of building. The earliest mention of the building is in 1596,¹ being an item mentioned in the city archives: "Payd for stone and gravell to pave on the north side of the Market house vjs iijd";—the inference being that the road is being made good against the building which has recently been erected or was at least in position at that time. The next reliable reference from the city archives is in the year 1602, and is as follows:—"To the Sargeant at Mace of Biesters warde within the Citie of Hereford" followed by a directive to issue a summons on various persons "to appere before the Maior and Justices of Peace of the Citie of Hereford at the Newe Market house within the said cittie at the general quater sessions, etc.", dated the IXth day of September 1602.² The emphasis of the word "new" confirms that this is the building we are reviewing.

A later summons in 1610 appears "Robart Morgan master and William Havard and Richard Hunt, wardens of the company of tailors, presented four men not appearing at the Market House and they were fined iijs iiijd.³ There is also another summons to offenders to attend Quarter sessions at the New Market House in 1616.⁴

Although these references do not establish the firm date of the year the Hall was built, they do cast a grave doubt on the prevalent theory that the building was the work of that well known Hereford craftsman John Abel. There is firm evidence that John Abel was born in the year 1577 and died in 1674, and assuming that the Market Hall was built some years prior to 1602, Abel would be a young man of approximately twenty years of age.

Faced with this fact it seems improbable that he was the person responsible for the design and work of the building. It is possible that he may have assisted as an apprentice and it is known that later in the early 17th century he carried out a great deal of work in Herefordshire including similar works, e.g., Leominster Town Hall, 1634, so the conclusion may be that the

¹ Hereford Corporation MSS. 9, ii, vii.

² Ibid. 9a, vi, lix.

Ibid. 12, v, iv.
 Ibid. 12, vi, xx.

Hall is a work of late 16th century origin. Proof as to its position and later existence is contained in a fine map of the city by Taylor, dated 1757, together with a sketch of the building as it was at that time. The position was in the High Town, west of the Butcher's Row and near the junction of High Street and Widemarsh Street with the High Town. Another map mentioned by Clayton, made by J. Price in the mid 18th century, also contains a "vignette engraving" of the Town Hall, which Clayton alleges to have helped him in his reconstructive drawing of the top storey.

The building appears to have carried on its use as a market until the late 18th century and probably later. In 1788 a manuscript copy of regulations was made concerning the position of wares to be sold on market days.² "It is ordered that hops were to be in the Market House *under* the Shire Hall" (probably Market Hall as the word "under" confirms this).

In the 19th century the building seems to have faded somewhat into insignificance, partially due no doubt to its uninteresting and dilapidated condition and partially due to the rebuilding of more modern public buildings.

Another reason for this sad state of affairs is mentioned by Clayton, who summarizes the position as follows: "the whole fabric has since (the removal of the top storey) been subjected to successive courses of repairs, which have reduced it to the condition in which it now exists, and it is much to be lamented that with the abundant funds for the accomplishment of the express objects for which they were appropriated, the reparation of the fabric should not have been effected without injury to its general architectural character". It is obvious that the local authorities were not keeping a careful watching brief on this work and probably had no idea of the importance of this monument.

A sign of the times and perhaps of significance to this building is the existence of an "Improvement Committee", mentioned in the minutes which concluded its sale, and, as a result, its demolition.

Apparently the Mayor of that date was also a prime mover in desiring its demise, which is shown by the following report.

"The Mayor reported that he had sold the old Town Hall to Mr. William Davies for the sum of Two Hundred Pounds (£200) 22 Jan. 1861".3

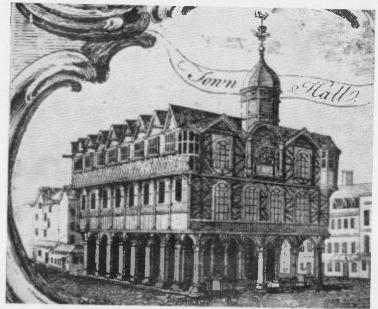
Following this report the minutes continue:-

"They further report that they advertised the materials of the Old Town Hall for sale by tender but received no adequate offer for the same and that they had therefore disposed of the same by private contract to Mr. William Davies of Widemarsh Street for the sum of two hundred pounds in accordance with the terms advertised for the sale thereof by tender. 5th February 1861.

¹ A Collection of the Ancient Timber Edifices of England by John Clayton, Architect. (Published 1846).

² Pilley Collection, MS. 127.

³ Minute Book, Hereford Corporation 1859-64.



HEREFORD MARKET HALL, TAYLOR'S PLAN, 1757. WEST END AND NORTH ELEVATION.



Hereford Market Hall.
East End and North Elevation.
Drawing by W

Drawing by W. W. Gill, c. 1860. In Hereford City Library. Given under our Corporation Seal at the Council chamber Guildhall of the said City this fifth day of February One thousand eight hundred and sixty one.

Thos. Cam. Mayor."1

Finally the last minute, showing that there was intent for improving and widening the High Town:

"That the Improvement Committee proceed to make good the road and widen the pavement in the High Town immediately after the Materials of the Old Town Hall have been taken away—Thomas Cam—Mayor."²

The pictorial evidence, although not plentiful, enables us to trace the gradual decline of the building from its early magnificence to the end of the 18th century, from which date until its demolition, there were few changes.

The first and earliest known sketch is in Dingley's "History from Marble". This sketch is of great importance, both for the fact of its early origin, circa 1680, and also in that it stresses several structural features which disappeared at a later date or had been altered. The view is mainly of the west end elevation and shows a lean-to and gabled staircase on the south side. At first floor level, in the west end, a long continuous overhanging window is shown; this is missing from all later views and reconstructional drawings. The three gables and angle oriels, in the main, agree with later versions.

The turret is shown with a spire finish; this was modified to a type of cupola at a later date. In these early days there appears to have been a clock in the west end elevation, and Dingley has shown in addition a sundial at the S.W. angle. The clock was altered or renewed and quarter jacks added with bells in the early 18th century, the remains of which are in the Museum.

The next view of the Market Hall is by Taylor on his plan of 1757; he also proves the position of the building in the High Town on his map. Once again the drawing shows the west end elevation and in addition the north elevation. The south staircase is only indicated by the shaded background at the rear of the columns, and is of no value for detail, but does once again corroborate its existence and position.

The west end had altered considerably since Dingley's day, and, although retaining its half-timbered walls, shows a distinct 18th century feeling in the finish of the round headed windows, glazing bars, etc. At second floor level, the central gable has disappeared, giving place to a pilastered central feature, containing the clock, having a curved pediment. The turret also has been altered and

Page 29 Minute Book, Hereford Corporation 1860-64.
 Page 27 ibid., 1860-64

³ Dingley, op. cit.

treated with a domed roof. The angle oriels have been treated very severely and appear to have flat roofs.

The north elevation does not seem to have received such drastic treatment, window openings and gables appear to be the same, and the shafted columns at first floor level, supporting the second floor overhang, are still in position.

The next view is by W. Gill and is of early 19th century origin. Here the building has suffered a decided change for the worse, not only having lost its top storey, but in addition having had all its timber work obscured by stucco. This time the view is of the east end and north elevations, and once again the south staircase is only shown as a dark background to the columns.

The windows of the north elevation have been altered to sashes and the overhang to the second floor utilised and altered to an eaves cornice. In the east end are three round headed sash windows, above which is a similar eaves cornice and in the position of the central gable a clock with 18th century surround.

A significant feature of this sketch is the fact that the roof appears very similar to that depicted earlier, with eight gables to the main side elevation and three (less one taken up by the clock) to the end elevation. It is possible that, having removed the top storey and whilst re-roofing, the original trusses were found sound enough to re-use, as there seems to be no particular motive for designing a similar roof. The turret has completely disappeared.

In 1838 there appeared a short article with two sketches of details in the Civil Engineer and Architects' Journal relating to the Hall.¹ Whilst these sketches are of considerable interest and importance, they do not serve our present purpose in reviewing elevational views, and will be mentioned later. Finally there is a good mid 19th century reconstructional perspective drawing by Clayton² of the building in its original state, which shows a certain amount of Victorian feeling, but is of great value to us in our later architectural classification.

Before commencing a detailed description of the building the existing remains, previously reviewed, can be dealt with more fully.

The columns at Holmer Hall are square in section with attached half shafts, one to each face. The capitals are of two designs, one with a moulded abacus and a crude stiff leaf foliage beneath, the other type being moulded only. It is interesting to note here that Clayton does not show any foliage capitals in his reconstruction drawings. The bases are very worn and none of the original mouldings can be traced.

Between the posts and springing from capital level are two carved spandrels to each side of the square aviary, with central moulded and carved pendant. The spandrels contain carved leaf work, varying in design, and each has a quatrefoil with a shield on the point of the cusps; the shields are of two types. The pendant has a central square panel enriched with foliage and is finished in three series of crisp upturned leaf work.

The remains at Lyde House consist mainly of a series of heavily moulded beams, now re-set in the ceiling of one of the rooms. These beams formed the ceiling of the market hall and floor of the first floor chamber, and consist of approximately two bays. Housed into these beams are four carved brackets; they are similar in design, being enriched with three stiff leaves. The glazed porch contains a number of the moulded window mullions, the moulded face being internal; acting as a wall plate to the lean-to roof is another reused moulded member.

The two spandrels in the stable loft are from the first floor chamber; they are plain chamfered and cusped on the underside, with a small trefoil perforation in the point of each cusp. These spandrels originally linked the wall-posts and central posts with the ceiling beams they carried.

The remains in the cow-byre on the Whitfield estate, owing to difficulty of access, were not inspected; it is alleged, however, that there is nothing beyond the columns, now used as posts; good examples of these we have already reviewed.

The quarter jacks in the Museum consist of two male oak figures, 4 ft. high. The right fore-arm of each figure has been restored; the hands hold a wrought iron striking axe. The figures are mounted in a supporting frame, and suspended between them are the two original bells, the larger one some 8 in. in depth and 9 in. in diameter, the smaller one 7 in. in depth and 6 in. in diameter. The large bell has an inscription in $\frac{3}{4}$ in. lettering "I HADLEY X F 1710", the small bell has two raised casting panels with smaller lettering "1710 X F" and "I Hadley".

The quarter jacks and bells are good examples of the period and in quite good condition. It is gratifying to find at least these remains preserved and in the right place.

Having summarized documentary and pictorial evidence together with existing details, there now remains a reconstructive description to be dealt with, aided by the plan, elevation and section.

The building measured approximately 35 feet in width and was some 85 feet in length, supported by twenty-seven oak columns arranged in three rows of nine, each standing on a raised stone flagged floor two steps high. The capitals and section of the columns

¹ The Civil Engineer and Architects Journal, No. 7, April 1838, pp. 163-164. Article by A. W. H. (Copy lent by Mr. C. Evans).

² Clayton, op. cit.

¹ i.e. Isaac Hadley, a bell founder of Leominster.

or pillars have already been described, but the existing bases are worn and we must fall back on data supplied by two sources, the Civil Engineer and Architects' Journal of 1838, and Clayton's book of 1846. Both detailed sketches agree, and the pillars are shown with moulded bases and a lower moulded stone plinth block, both being octagonal.

Above the capitals the columns become square in section, housed on each face to take a carved spandrel piece. In the case of the outer ranges of columns, there is an outer carved bracket supporting the first floor overhang, the spandrels taking the moulded ceiling beams. A noticeable feature is that the span between the columns across the building (i.e., at the end elevations) is greater by some four feet than that on the longitudinal range; to overcome this difference a moulded beam is let in between the ends of the two carved spandrels, with two pendants. The side bays have only one pendant between the immediate ends of the spandrels.

The main heavy moulded beams supported by the columns divide the ceiling into sixteen main bays; they project beyond the outer columns with the carved brackets supporting the overhang. Intermediate lighter section moulded beams further divide the ceiling into ninety-six subsidiary bays.

The edge of the overhang is terminated by a heavily moulded continuous bressummer with pendants at the main angles; this beam supports the vertical members to all the outer wall faces. The main north elevation has a run of vertical members above the overhang with diagonal timbering above, finishing below the windows. There is a range of eight four-light transomed windows, which are carried up to the overhang of the second floor. The total of eight is borne out by Taylor's sketch and also that by Gill. Clayton, on his plan, shows the windows with a projection sufficient to give them sidelights; this is a matter for conjecture and in his perspective the projection is not so pronounced.1 Between the windows and at the angles are attached half shafts with moulded bases and capitals supporting the carved brackets taking the second floor overhang. These appear quite clearly in the sketch by Taylor. Once more the overhang has an outer continuous moulded bressummer, taking the timbering of the second floor walls. The timbering is diagonal between the vertical members over the entire wall face and in the heads of the gables. There is another range of eight four-light transomed casements to this floor, with a slight projection to each window with carved brackets below the sill. The eight gables are verified in every drawing which eliminates any doubt; they probably had bargeboards enriched with carved work, but there are no existing remains of these.

At each main angle to the top storey is a pleasing pentagonal oriel with mullioned and transomed lights; externally it is shown to be carried by carved spandrel brackets supported by a crouching caryatid based on the half shafts. Structurally it is known to have been carried by a diagonal dragon beam projecting through the angle of the building; although the oriels had vanished in Clayton's time he vouches for this beam and states that it was still visible in the ceiling of the first floor chamber.

This type of beam can be seen in other buildings of half timber construction, used at the main angle at a projecting overhang, but it is rare to find them projecting beyond the angle as at Hereford. The original oriel roofs were undoubtedly pitched as shown by Dingley and probably octagonal.

We must assume that the main south elevation is similar in detail, with the addition of the outer staircase to the first floor chamber.

The briefest of views of this feature is given by Dingley in his early sketch which shows a lean-to or penthouse roof with an additional gable. A model in the Museum by L. J. Starkey shows a possible reconstruction of this feature, but whereas the roof with gable and window at the landing is quite reasonable, it is highly unlikely that the projection was supported by similar columns to those of the main building, as shown in this model. An alternative solution is given by Clayton, who, whilst avoiding an elevation, shows on plan a cased staircase with upright posts panelled between.

The main west elevation is shown by Dingley to have one large overhanging continuous window at first floor level, carried on a series of brackets, with a clock above in the central gable and a window in each end gable. If this large window was there, it had been entirely replaced by the 18th century, and four windows appear in Taylor's version.

Clayton in his detailed reconstructional drawing has compromised, influenced probably by the fact that there may have been only three windows at this period, as shown at the east end by Gill, or possibly by the "vignette engraving" by J. Price, which he states to have been of assistance to him in his drawings.

The timbering of this elevation is very similar to that of the other elevations, with diagonal work at the same levels. The scale elevation shows three bay windows at first floor level, of greater depth than those to the main side elevations. The central window has five lights with an additional angle side light on either side, caused by the projection; it has two series of transoms. It is carried by carved brackets. The windows on either side have four lights, with square returned side lights to the bay; these windows are similar to the central one for other details, but are only carried on one bracket. The half shafts are also in

¹ Leominster Town Hall windows have pronounced projection.

evidence, supporting the carved brackets to the overhang at the top storey. In the central gable of the top storey is an elaborate version of the clock complete with quarter jacks, above which is a small two-light window, and in the gables on either side a four-light transomed bay window as before described.

Clayton has repeated the half shafts on this storey, shown between the oriels, bays and clock; he portrays them as supporting the gable and eaves projections. The former have ornamental bargeboards enriched with quatrefoil and chevron work, the finials at the apex finish as pendants and there are further pendants at the junction of the bargeboards.

It is noticeable in this elevation that the window tracery is rather elaborate, likewise the clock surround, smattering rather of the Victorian Gothic influence. This is again emphasized in the turret, which has changed from the simple spiral version by Dingley to a mullioned and transomed, glazed octagonal lantern, with a domed cupola finish and elaborate wrought iron weather vane.

We must assume a similar appearance for the east end elevation, as the very dismal view by Gill reveals nothing of the past grandeur.

Little is known of the interior; in the detailed cross section, based on that by Clayton, an attempt has been made to portray structural members only.

As it is known that the first floor chamber was one room, used for courts, assizes, etc., it is reasonable to assume that in order to cope with the top storey ceiling spans, vertical posts would be used directly above the columns of the central range in the lower market.

From these posts would radiate ceiling beams braced by spandrels. There is no indication where the internal staircase was situated, i.e., the one leading to the top storey, but we know that one existed, as the top storey was in great demand for the use of the guilds.

The detailed cross section suggests a central corridor in the top storey running east to west with the guild rooms either side, taking advantage of the greater fenestration of the north and south elevations. As there are eight main windows on either side, and assuming that each room had at least one window, this would create some sixteen rooms, which would just about cover the guilds enumerated.

It is quite likely that the majority of walls were panelled or half panelled, as shown by Clayton in his reconstructive section of 1846.

There is no record of plastered ceilings but these could well have been incorporated in the ceilings of the first and second floors, as fillings between the main bays of the ceiling beams.

In the review of historical evidence it was mentioned that whilst the building might be attributed to the Abel School, it was unlikely that John Abel himself designed it. That John Abel¹ was a well known craftsman and responsible for similar and other works in the county is an established fact, to the extent that he eventually received royal recognition by Charles I who endowed him with the title of King's Carpenter.² His tomb can still be seen in the churchyard of Sarnesfield, Herefordshire, where he was buried.³

It is now proposed to give a brief comparative analysis of some of his known works (showing at the same time that the Market Hall is an undoubtedly earlier work), together with one or two other examples of earlier work. His best known similar work, dated, is probably the Market Hall, Leominster, which although smaller in size has the same functional purpose and characteristics of the Hereford building. This building is in an excellent state of preservation and only narrowly escaped the fate of that at Hereford.⁴

There is a firm date of 1633 for this building.

The main columns are plain cylindrical with moulded bases and Ionic capping, as one would expect for that period; there are fluted angle pilasters to the upper storey. The Hereford columns have attached shafts with moulded or leaf foliage capitals, which show a distinct influence of the late 16th century. The Hereford

1 Herefordshire, Vol. III, North West, by the Royal Commission on Historical Monuments (England)—Architectural Survey of the County,

² An Historical and Topographical Account of Leominster and Its Vicinity by J. Price, 1795, states: "The said John Abel being in Hereford at the same time the Scotch beseiged it in the year 1645 made a sort of mill to grind corn, which was of great use to the besieged, for which contrivance and service King Charles the First did afterwards honour him with the title of one of his Majesty's Carpenters".

* Clayton alleges that Abel designed his own effigy and monument at Sarnesfield. A visit to the site shows a restored table tomb situated near the south porch of the church. A tablet let into the rubble walling of the south side commemorates its restoration in 1886 by the National Society for Preservation of Memorials of the Dead. The top inscription slab is probably original and bears the following re-cut epitaph:

"This craggy stone a covering is for an architect's bed,
That lofty buildings raised high, yet now lies down his head.
This line and rule so Death concludes are locked up in store,
Build they who list or they who wist, for he can build no more.

His House of clay could hold no longer, May Heaven's frame him a stronger." JOHN ABEL.

Vive et vivas in victam aeternam.

Died 1674 in the 97th year of his age.
date 1674 has been re-cut badly and now looks like

The figure 7 in the date 1674 has been re-cut badly and now looks like a 9. Below the inscription is a circular panel with compasses, square and foot rule inset, and by the panel two small crudely carved figures of children.

⁴ The Town and Borough of Leominster, by the Rev. George Tyler Townsend, M.A.: "The Hall was sold for £95 in 1853 to Mr. Francis Davis, who resold it to Mr. Arkwright, who, as the town would not present a site for it, rebuilt it in the Grange."

spandrels and brackets are all carried out in the stiff leaf work of the late 16th century with small shields in the centre of the larger types; those at Leominster have either pateræ or conventional scroll work, with outer brackets of grotesques on scrolls.

Note too that the heavily moulded bressummers to the overhang, so prominent in Hereford, have given way to a bressummer enriched with conventional strapwork of the period, the mouldings having disappeared.

The next example is that of the Market Hall at Ledbury, also existing. This is alleged to be the product of John Abel in 1633,1 although with less certainty than the Leominster building.

It is a smaller and plainer building than Hereford yet very similar in general design and timbering. The supporting columns in this case are square section and moulded, with moulded bases and stone plinths; the brackets are curved and plain.

The Old House, Hereford, built in 1621, is also linked with the name of Abel,² but there is no proof of this connection; as the building is still standing, it is interesting to note the similarity of the carved pendants, the timber work within the gables and the projection of the windows with carved bracket supports, to the reconstructional elevation of the Market Hall,

Other edifices accredited to Abel³ still existing are the Ley, near Weobley, dated 1589,⁴ Almshouses, Berrington Street, Hereford, and the School House at Weobley: whilst these are interesting as examples of timber framing they cannot be compared as structures with the larger public buildings, and indeed have no salient details of similarity.

It is difficult to find many similar works of a secular nature for comparison with the Market Hall, especially of the requisite date, and it would perhaps be dangerous to trespass very far into the ecclesiastical world.

It is, however, an established fact that in the 17th century Abel re-roofed the parish church at Abbeydore, carrying out the work with a wealth of moulded and enriched details, grotesques, etc., the main influence being mid 17th century and definitely later than the Market Hall, which clung to the decreasing Gothic influence of the 16th century; in addition he was responsible for the fine oak screen at Abbeydore, also mid 17th century.

The west porch of Aconbury church⁶ has two outer spandrels, filled with stiff leaf carving and supported by light shafts with moulded capitals, and whilst this porch is of late 15th century origin,

these two details are not unlike the later spandrels and slender facial half shafts of the Market Hall which still retain the Gothic feeling.

A very good detail of secular work of the same period, which is undoubtedly of late 16th century origin, is the carved bracket, one of three (see plate) discovered in "Nash House" near the Booth Hall in the High Town. The author helped to note and measure this building in 1930. The bracket shown in the photograph carrying the overhang has the same stiff leaf foliage, surround, etc., as those in the Market Hall.

The moulded beam has a similar stop, and although its mouldings are not of as great a depth as those of the Market Hall, there is a marked similarity.

A further 16th century example of secular work with comparable details is the Freemen's Prison² discovered some years ago, adjacent to the Booth Hall. In the external view, illustrated in the Woolhope Club *Transactions*, can be seen the heavily moulded bressummer at the overhang level, above this a window with a low projection carried on brackets. In the same building, another view gives a most valuable cross section of the work of that date, and here one may see a moulded beam at first floor level showing the stop, in addition a curved bracket at the beam and post connection, with another curved bracket supporting the overhang of the first floor. Below this is an attached outer shaft, with moulded cap, supporting the bracket. This is exactly how the outer shafts looked on the first floor level of the Town Hall.

A very good section is shown right through the moulded bressummer to the overhang. This plate is one of the best examples the author has seen of exposed 16th century constructional work.

The atmosphere of the 16th century was also felt by Clayton who, during his short summarized account states:—

"The area on the ground floor serves for the market place; the roof or ceiling of this portion forming the floor of the hall is highly enriched, much of the carving of the spandrils and any other portions now remaining, is of excellent design and execution and would have done credit to the best days of Gothic art."

A final guide to the early date of the building is surely the detail section of a main beam in the ceiling of the market hall; the general outline and mouldings together with the depth all smatter of the late 16th century.

In conclusion we are fortunate in having sufficient remaining details, aided by prints, photographs, and Mr. Clayton's mid 19th century work, to enable these notes to be compiled, and it is always within the realms of possibility that further evidence may be produced which will establish a firm date for the year in which the building was erected.

¹ Herefordshire, Vol. II, East. R.C.H.M.

² Clayton, op. cit.

⁸ Clayton, op. cit.

⁴ Highly unlikely to be a work of Abel owing to the early date of the building.

⁵ Herefordshire, Vol. I. South West. R.C.H.M.

^{*} Ibid.

¹ Transactions of the Woolhope Club. Part I, 1930, pp. 56-57.

³ Ibid., 1934, pp. 51-53.

FALCONRY, WITH NOTES UPON LOCAL RECORDS. By J. E. M. Mellor.

(Read 8th February, 1949.)

Some early references to hawks and hawking are as follows:-

- I. 8th Century: A.D. 732-751. Boniface, Archbishop of Mayence, sent a gift of a hawk and two falcons to King Æthelbald of Mercia. A translation of the covering letter runs as follows:— "Meanwhile as a mark of true love and devoted friendship I send you one hawk and two falcons, two bucklers [oblong wooden shields covered with leather] and two lances [the sort with leather thongs]".
- II. 10th Century: Athelstan (eldest son of Edward the Elder, who died on 17th July, 924) succeeded his father in the same year and was crowned at KINGSTON on 4th September, 925. Between 927 and 931, "either by force or display of force (he) brought most of the Welsh Princes to a meeting at HEREFORD, and secured a promise of a yearly tribute, which was said to comprise an unspecified number of hounds and hawks, twenty pounds of gold, three-hundred pounds of silver, and 25,000 oxen—figures which verge on but perhaps do not quite reach the incredible."
 - III. 11th Century: Doomsday Book, A.D. 1086.
- (i) The King holds CHINGESTONE [Kingstone] To this manor belonged T.R.E. a part of the land of CHEWESHOPE [Cusop] and the dues from it went into (pergebat in) Chingestone. Roger de Laci holds (it) of the King.

To this manor the sheriff added WAPLEFORD [?] in the time of Earl W[illiam]. This manor Aluuin held and he could go to what lord he pleased. (There are) there i hide of land (and) 2 ploughs. There are 2 villeins with 1 plough. All this thus added together renders to the King 50s of blanched money and one hawk.

(2) The King holds LEOFMINSTRE [Leominster]. Queen Edith held (it) with 16 members. LUSTONE [Luston in Eye], Iarpol [Yarpole], ELMODESTREU [Aymestrey], BRUMEFELDE [Brimfield], ESTUNE [? Ashton in Eye], STOCTUNE [Stockton in Kimbolton], STOCA [Stoke Prior], MERSETONE [Marston], UPTONE [Uptone in Brimfield], HOPE [? Hope in Laysters], BRETLEGE [? Brierley in Ivington], IVINTUNE [Ivington], CERLESTREU [Cholstrey], LENTEHALE [Leinthall], GEDEVEN [Edvin (Ralph)], Fernelau [Farlow]. The wood 6 leagues long and 3 leagues wide renders 22s. Out of these 5s. are given

towards buying wood in WICH [Droitwich] and 30 mitts of salt are had thence. Each of the villeins who has 10 pigs gives 1 pig for pannage. Of the land reclaimed from the wood (exsartis silvae) the profits are 17s and 4d. There is a hawk's eyrie.

- (3) IN GLOWECESTRE SCIRE. The King holds HANLIE [Hanley Castle]. (There are) 4 hides. On the demesne (are) 2 ploughs and (there are) 20 villeins and 17 bordars and a reeve. Among them all they have 17½ ploughs. (There is) a hawk's eyrie there. A forester holds half a virgate of land, and a villein of Baldehalle [?] renders 2 ores of pence to this manor.
- (4) The King holds FORHELMENTONE [Forthampton. Brictric held (it). (There are) 9 hides which paid geld for 4 hides. On the demesne are 3 ploughs and (there are) 7 villeins with 5 ploughs. 4 swineherds there with 1 plough pay 35 swine. The wood is 3 leagues in length and breadth. It is within the inclosure of the King's wood, and (there are) there a hawk's eyrie and $2\frac{1}{2}$ hides, and Ansgot holds 3 virgates of land. The tithe of the manor with one villein and 1 virgate of land St. Mary holds.
- (5) THE LAND OF GILBERT SON OF TUROLD. In Stradelei Valley. The same Gilbert holds BECCE [Bach]. Edwin held (it). There (are) 3 hides. There are 8 Welshmen with 2 ploughs; they render 1 hawk and 2 dogs. Entries in the Close Rolls show that a sparrowhawk each year was exacted as rent from holders of land on royal estates: this may have been a sparrowhawk—or a Goshawk?
- IV. 14th Century: 1370-1375. In HEREFORD CATH-EDERAL on the misericord nearest to the altar in the north row of stalls there is carved a falcon with a heron which she has just brought down by the head. A spaniel has hold of the heron's tail and so balances the group.
- V. 17th Century. Charles II, called upon to retrench expenditure in 1667, first reduced his falconry establishment and soon after dismissed his grand falconer. A little before his death in 1685—perhaps the year before—Charles revived the office of Grand Falconer of England in favour of Charles Beauclerk, his son by Eleanor Gwynn, whom he had already created Duke of St. Albans in 1684. Charles Beauclerk came into possession (by reversion) of the office of Hereditary Master Falconer or Grand Falconer of England, given him by his royal father, by letters patent of James II, in 1688. This hereditary office has been held by the Dukes of St. Albans ever since.

¹ The foregoing references are taken from the translation of Domesday Book in the *Victoria County History of Hereford*.

Lord James Beauclerk—8th son of the Master Falconer—was Bishop of Hereford from 1746–1787 and a tablet in Gwynn Street claims that his grandmother lived there.

VI. 19th Century. Mr. John Riley, of Putley Court, was a great exponent of the art of hawking with Goshawk and Sparrowhawk; indeed E. B. Michell, writing in 1900, said of him that he was "in flights with short-winged hawks of both species facile princeps". Mr. Launcelot Riley, of The Twerne, Ledbury, has very kindly lent me his father's hawking note-books for the years 1884—1889 and some records for the years 1890–94. I have not, as yet, had time to read through all these records; but a few extracts will serve to show that he excelled and had a great deal of sport with his birds, in spite of difficulty in finding enough quarry and being much troubled by poultry being almost everywhere.

Between 20th August, 1885, and 5th April, 1886, a female goshawk, named "Isolt" was flown on 73 days and took 110 rabbits, 2 pheasants, 13 waterhens, 5 duck and 1 rat—131 head. Between 2nd November, 1886, and 2nd March, 1887, in 41 days she took 130 rabbits, 1 pheasant, 4 ducks, 3 waterhens and 1 stoat—139 head. Between 2nd November, 1887, and 26th December, she took 70 rabbits in 13 days and as many as 10 on one occasion and 8 on each of three days.

"Tostin", a haggard male goshawk, which was caught on 15th July, 1891, caught its first partridge on 9th September—56 days!—and by 17th October had taken 21 partridges, 3 pheasants, 1 landrail, 1 leveret, 1 woodpigeon and 1 waterhen. This hawk, unfortunately, died on 23rd November.

On one occasion Mr. Riley had thrown off a goshawk at a rabbit, which ran past an old hollow pollard ash. As she passed, out jumped a fox and joined in the chase! As this might have ended badly for the hawk, Mr. Riley let out a yell which scared the fox and the goshawk took the rabbit only a few yards ahead of where the fox had turned off.

STORIES

LONG FLIGHTS AND SPEED.1

Some curious stories have been recorded about the distances to which trained hawks have flown and the time taken to do them.

De Thou relates that a falcon belonging to Francis I was flown in the month of March at crane at Villers-Cotterets, between Paris and Soissons. Mounting very high, it was carried away before the wind and was found the following day on the battlements of the Tower of London—I think about 200 miles. Henry VIII, to whom the falcon was taken, recognised the arms of France on

the varvels and returned the bird to Francis with a message that it pressaged a happy alliance and constant friendship.

Charles D'Arcussia de Capre, Seigneur d'Ésparron—a famous falconer—recorded in 1607 that a male saker belonging to Henry II of France, flown at little bustard (Cannepetière) about 10 a.m. at Fontaineblau, was taken up the following afternoon at 4.30 in Malta. This was reported to the King by the Grand Master, who returned the bird.

Harting computes this distance to be—in a straight line—1,110 English miles. On D'Arcussia's estimate of 12 flying hours, this would be 99½ m.p.h. But the hawk may have put in more hours flying.

A writer in the Natural History of Wiltshire written between 1656 and 1691, relates that, between 1630 and 1634, Sir Henry Poole of Cirencester lost a falcon at about 3 of the afternoon of a spring day. His falconer, who happened to be in Norway looking for hawks, discovered this bird next day in the evening on the stand whence it had been originally taken—a distance of 600 miles.

Harting considers, on the whole, 60 m.p.h. to be the rate at which a falcon travels when in full flight.

D'ARCUSSIA (b. 1547-1550, d. 1629-32 or 33).

D'Arcussia relates the following amusing story.1

He was invited to join a hawking party by a gentleman who kept falcons and had a relative who had goshawks. The owner of the falcons would have liked to have kept a goshawk too, but his falconer was a conceited fellow who thought that to have anything to do with a "pot-hawk" would injure his reputation.

A few days before the rendezvous, to which D'Arcussia had been invited, the falconer and the austringer had had a quarrel and had decided between themselves that whichever should fly his birds best on this day should be adjudged the most proficient and that the other should yield him place.

The two men went off to train their birds each in his own way. The falconer chose two eyass falcons accustomed to strike at the lure in passing over it. He trained them on a lure made of flesh-coloured morocco leather which he placed upon his head so that the birds got accustomed to strike it there till it fell to the ground where they continued to fly at it and to strike it. The goshawk man chose a large jealous bird which was apt to strike at the face of the man who "made into" her clumsily when on her quarry.

On the appointed day all the party, including the two men, got on their horses. Both men wore smocks of the same colour: the falconer, however, made excuse of the heat to leave his behind.

¹ Taken from *Hints on the Management of Hawks* by James Edmund Harting, 1898, pp. 197-199.

¹ Story taken from *La Conférence des Fanconniers* by Charles d'Arcussia. Ed. by Ernest Jullien from the 1644 Edition, Paris, 1883.

The austringer, being an old man, did not follow suit: but was bald and went bare-headed.

Arrived at the scene of operations, it was decided to fly the goshawk first. The falconer made ready to get off first as soon as game was found and the goshawk cast off. Soon this happened and he galloped off; whilst the austringer followed leisurely and, as he passed his master, bade him push on to see the fun as the goshawk would surely have the falconer by the nose! His master. realising for the first time what was afoot and not wishing any unpleasantness, dashed off, but only got to the kill in time to see that the goshawk had already left the partridge she had taken for the falconer's nose! The austringer made no great haste to relieve his rival. However, released from the attentions of the goshawk, the falconer, intent on his revenge, made light of the affair. He then asked permission to cast off his falcons and to make them "wait-on". The falcons, once on the wing, made a couple of circles and then espying a man in a familiar garment, at once stooped at his head—first one and then the other—with increasing force; biffing him this way and that until he was forced to throw himself to the ground under his horse. Even that would not have saved him had not he been succoured. For very pity the falconer had to call off his birds to the lure!

The austringer claimed that his bird had unaided taken the falconer and would have eaten him alive had help not been afforded him. Moreover he himself had been attacked by two birds.

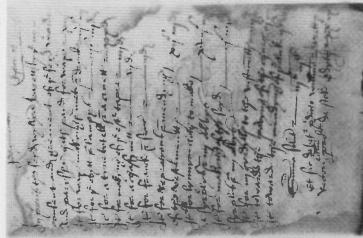
The falconer replied that had the austringer not been saved his birds would certainly have killed him!

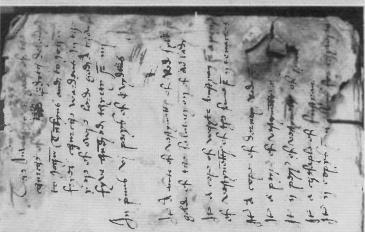
They elected, however, to stand by the judgment of the witnesses. These after a pow-wow decided to leave each to his own opinion and to defer judgment and so keep the matter for a good laugh at some future time.

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Photographs by F. C. Mo

EDITH CHURCH. Accounts, 1537.

ntory, 1534.

THE EARLY PARISH REGISTERS OF STOKE EDITH

By The Venerable Archdeacon A. J. Winnington-Ingram, M.A.

Read 8th March, 1949.

The church of Stoke Edith can justly claim to possess one of the most interesting of our early church registers. It came to to my notice when preparing a paper on Edward Cowper, rector of the parish from 1573 to 1596, and it has now been transcribed by Mr. and Mrs. F. C. Morgan. The original 16th century paper copy has been repaired and rebound at the Public Record Office owing to its rather fragile condition until this was done.

With this early volume is another interesting one on parchment, really beginning in 1584, but containing a copy of all the entries of baptisms, marriages, and burials contained in the earlier volume. This copy seems to have been made by Richard Dalton, parson of Stoke Edith, who succeeded Edward Cowper in 1596 and died in 1618. How fortunate it is that after making the copy he did not destroy or throw away the original volume!

VOLUME 1.

This volume begins as a register in 1538. This was the year when Thomas Cromwell, Vicar-General to Henry VIII, first issued his injunctions for the keeping of a parish "boke or registere." There are, however, eight other parishes in Herefordshire whose baptismal entries begin in 1538; viz., Aymestrey, Bromyard, Fownhope, King's Pyon, Lugwardine, Pencombe, Peterstow, and Thornbury. What makes Stoke Edith register uniquely interesting is that the book had been used before for six or seven years for the churchwardens' accounts and other notes.

We can obtain a picture here of the rich furnishings of an ordinary English parish church in the reign of Henry VIII. That monarch had his full share of obloquy for the suppression of the monasteries and the spoliation of their goods. But his action did not affect the ordinary churchman in a country parish. It remained for the Commissioners appointed by the Council of Edward VI (that band of brigands) to complete the tale of destruction, by despoiling the parish churches of treasures with which centuries of devotion had enriched them. No doubt it was done in the name of pure and reformed religion, but it was an opportunity well exploited for private gain as well. Many of the excesses, and destruction of such things as stained glass windows, should be laid at the door of Protector Somerset, rather than Oliver Cromwell who often gets the blame for them.

But at the moment we are in the last years of Henry VIII, and the church inventories begin in the year 1534 and the accounts in 1532. A glossary of some unusual words will be found at the end of this paper.

Page 1.

An...1534

The Inventory of goods of the churche of S...ke Edyth delyv(er)yd to John Tu(m)kyns and to John fryer churche wardens. In the yere of owre lorde god A thowsa... fyve hu(n)dred thyrty & iiij.

In p(ri)mis vj pecys of Evydens

It A sute of vestyme(n)tts of Red sylke & gold of the salutacyon of owr lady.

It A cope of whyte vustyan & a peyre of vestyme(n)tts of the same & ij tenacles

It A cope of dornex Red & ...
It A peyre of vestyme(n)tts of ...
It ij peyre of vestyme(n)tts of ...
It a chesaple of fustyan
It ij copys & ij albys for chyldren

2 Ano dni m.ccccc.xxxiiij It delyv(er)yd to ye seyd wardens A palle of Sylke It ij frynges of sylk dyapre warke It a mytre of sylke It vj towelles It ix Auterclothys of ye wc v be dyapre & iij playn cloth It iiij pentyd clothys for autres In the lentt1 It ij pentyd clothys of whytt & blewe for ij ymages of owr lady ... A clothe for ye trynte clothe for ye Rode [... A clothe for ye cope]³
It A clothe wt A crosse for ye Res . . . yon (Reservacyon)

Ano dni 1534

It delyv(er)yd to ye wardens ij corpores the casys felvytt & sylke & wrougth wt gold
[It A nother corpores for ev(er)y day]
[It an hollond kercheff]

4 (Blank)

The Account made by Rychard Fryer and John Boge wardens of Stoke Edyth In the yere of owre lord god A thowsand Fyve hundred thyrty And too

In p(ri)mis Recevyd for Rentt	xiijs	iiijd
It of the Rest of petre pens1	vjd	
It of Henry Collyns for Rentt	vijd	
It for the Estr tapur	vijd iiijs	vd
It recevyd for Waxe money	xis	iiijd
It recevyd At ye churche Ale	X8	viijā
It Recevyd ij bussells of wheytt	ijs	viijd
It Recevyd of Robert Wopar	viijd	
It Recevyd of John Collyns	iiijd iiijd	
It of John Tu(m)kyns	iiijd	
It of Jellyan Wyllys	id	
It of Thomas Butt	id	
It of Rychard geffereys	jd jd jd	
Smª Rs xlve		

6	
Paymenttes	
It payd For rep(ar)acyons of bok	es vjs viijs ijs vjs xijs jd
It for bell brassys	ijs vje
It for tyle to pave ye churche	ijs vje xijs jd
It ye pavynge	vd
It for waxe	xiij ⁸ vj ^d
It for ye makyng	ijs xd
It for oyle & ye glasse	xxjd
It for ye makyng of ye seputure	jd
Sm Solucon	s xxxix ^s x ^d
So the rest payd to John Boge And to John Tu(m)kyns of ye	
Shewall ov(er) myth to ye sum of	vj ^e ij ^d

The Accountt made by John Bogge And John Tu(m)kyns of ye shewall church

wardens Ano dni 1533				
It In p(ri)mis Recevyed & gatheryd	}	iij ^{li}	VE	Vq
for the bying of ye new crosse & ye clothe	3	VS	ijd	
It Recevyd of Ryc fryer at owre comvng In	>	**	1]~	
It Recevyd of ye seyd Ryc fryer	3	XX3		
It Receved of Mynton		ijs	ob	
It of wyllwa(m) geffereyes	1	xiijd		
for a bossell of wheyt	3			
It of Ryc Tydnor	}			
for iij peckes & a half of wheytt	{	xj ^d		
It of Henry Collyns	>	vijd		
for rent In pentyng)	Vija		

¹ Observe that Peter's Pence was still being collected at this date, and for the next two years. Note also the Easter sepulchre and taper.

It was customary to cover all images and pictures during Lent.
 Ruled out, as are all lines printed in square brackets.

It for ye estr tapur	iiijs	iiijd	
It for waxe money	xis	vď	
It for petre pens	iiijd	ob	
It of Ryc Roberttes	vjd		
It of Zacary Hogges	jd		
It at est for bacon & egges	xixd	ob	
Sm Rs vli xiijs vjd ob			
8			
Payme(n)ttes			
It Inp(ri)mis payd for the			
newe crosse & the clothe	iijli	vjs	viijd
It for costes	ixs	v Jo	viij~
It to ye bryckeman for brycke	iijs	444	
It for the obett		ob	
It for oyle	xxjd	OD	
It for the clocke	xvijd	:::4	
	xije	iijd	
It for tylyng	vjd		
It for other repracyons	114		
don in the churche	xijd		
It for peyntyng of		****	
the ymage of or lady!	iijs	ijd	
It for waxe makyng	XXd		
It for mete & drynke	xvijd	ob	
It for makyng of estr tapr	iijd		
It for waxe	xjs	iijd	
It for papar	vd		
It for franckencense	ijd		
It for a key to ye cofur			
In the chaunsell	ijd		
Sum Solie vli xiiije	iiiid		
Et debet p(ro)curatoribz xd			
The Accowuntt made by John Bog And John Tu(m)kyns of ye shewall wardens Ano dni 1534.	ge churc	h	
It In p(ri)mis Recevyd for ye petre pens	vjd		
It of thom(a)s Abrealls wyff	vjd		
It of Ryc fryer	vis	viijd	
It for the estr tapur	iiijs	ijd	
It for the waxe money	,	.,	
to be recevyed & gatheryd of ye parysh	xi ⁸	vd	
Sum Rs xxiijs iijd			
Paymenttes			
It In p(ri)mis payd for oyle	$_{\mathbf{X}\mathbf{X}}\mathbf{d}$		
It for glasyng	xxiid		
It for makyng of waxe & costes	iijs	ijd	
It for waxe	хjв	id	
It for franckencense	ijd		
Sm Solis xvijs xjd	,		
Et Remanz ecclie vs iiijd			
mj			

¹ The ymage of our Lady was in the chancel, for there is a burial entry in 1545, ' John lynggen Esquyer Anno dni 1545to xjo die Februarij obijt et sepult' i cancello cora ymagine pieta bte virgis et mats dei et dm nri Jhu'.

An° dni. m.cccc.xxxv The accowuntt mad by John Fryer & John Tu(m)kyns of the showll churche wardens In the yere of or lord god 1535. In p(ri)mis Recevyd of Ryc fryer It for ye estr boke It of waxe money It of John bocher In hony Sm Rs xxix³ iiijd	xiijs iiijs xa ixd	iiijd xd yd	
In p(ri)mis payd for waxe	xiijs	ivd	
It for waxe makyng & for mete & drynke for ye est tabre It for dressyng of ye pyxe ¹	iijs		
It for dressying of ye pyxe- the censer & ye bells It for tylyng & naylys	} ijs	viijd	
It for ye obytt & for lampe oyle	iijs	iiijd	
Sm So xxiij ^s ij ^d Et sic Remanz ecclie vj ^a ij ^d			
11 Ano dni. m.ccccc.xxxvj			
The accowuntt made by John fryer And John Tu(m)kyns of the Showll c wardens In the yere of or lord god 1536	hurch		
In p(ri)mis Recevyd of Rch Fryer	xiijs	iiijd viijd	
It for ye est boke It for waxe money	X8	Vilja	
It for the remanent of we last were	vis	iid	

1000				
In p(ri)mis Recevyd of Rch Fryer		xiijs	iiijd	
It for ye est boke		iiijs		
It for waxe money		X8	Vd	
It for the remanens of ye last yere		vjs	ijd	
It of Roger Whytt for ye	1			
last yeres rent & ys yere	5	ij ⁸ iiijd	vjd	
It of Joan Spycer		iiijd		
Sm Rs — xxxvij ⁸ v ^d				
In p(ri)mis leyd out for ye \	1			
obytt & for lampe oyle	Ĵ	iij ⁸	iiijd	
It for waxe & makyng & met & drynke		xiiijs	vijd	
It for mendyng of ye cloke		xvjd		
It for mendyng of ye bell		ixd		
It for a rope for ye cloke		xjd		
It for a rope for bell		Xq		
It for a corde for ye lampe		ijd		
It for mendyng of ye crosse		viijd		
It for whytt lethur		viijd jd vjd		
It for cost & labre		vjd	jd (sic.	.)
Sm Solie xxiije iij	d			
Et sic Remanet ecclie xiiii		ijd		

12 An° dni, m.ccccc.xxxvij°
The Accownnt made by John fryer & John
Tu(m)kyns procturs in ye yere of or lord god 1537.

 $^{^1}$ The pyx was a hanging one, see entry in 1537 'a corde for ye sacrame(n)t'.

	It of Rychard fryers wyff for a bossell of whet It of Joan Spyser for half a bossell of whet It for Rogr Whyttes closse	xiiijs xiiij ^d vj ^d xv ^d	ijd
	Sm Rs xxxiiijs viijd Sm Solis [xviijs viijd]¹ xvjs iiijd Sm Remanet ecclie [xvjs] xviijs iiijd		
	13		
	Paymentes	-	
	And for lampe oyle	iijs	iiija
	It for ye estr tapre	xjd	III.j
	It for a glasse to ye lampe	íjd	
	It for a corde to ye sacrame(n)t	vjd	
	It for tylyng It to thom(a)s bogge for me(n)dyng	ijs	
	of the churche porche	ijđ	
	It to John bogge for	-7	
	me(n)dyng of ye bell	vjd	
	It to John Hogges & to John	4	
	Bogge for me(n)dyng of ye bell It for me(n)dyng of the lampe	NX4	
	and ye candylstycke	xvid	
	It for a corde for ye lampe	iiijd	
	It for namyse 2	vd	
	It for ij p(ro)cessonalles It for a nynare ³	iijs xxd	iiijd
	It to mastres lyggen for waxe money	xiijd	
	It to m(ar)garet Ravynhyll for waxe money	vja	
	It to Owen for waxe money	vjd	
	It to John gaffreys for waxe money	ijd	
	1.4		
	Compot(us) fact' p(er) Johez Fryer et Johe Tu(m)pkyns yconomos (sic) ecclie prolia de stoke Edyth p(ri)mo die mense Junij Ano dni. millimo quigen xxxvijo		
	In p(ri)mis wyllya(m) Barett p(ar)son of stoke Ed- (by the mynd & consent & grement of the seyd John Fryer, John Tu(m)pkyns church wardens and the paryshe) have Recevyd of Rychard	yth	
	fryer for Rentt	xiijs	iiijd
	It Recevyd of Roger Whytte for Rent	xvd	
	It of ye seyd wardens John Fryer & John Tu(m)kyr.		
	for the sume of Remanens of ye last yere It of John Bogg for hys tyme beyng warden	xvja vs	
	It Recvyd of Robert hopar for waxe money	xijd	
	It of thom(a)s Bogge	iiijd	
	It of thom(a)s myntton	iiijd	
ļ	It of Joan Spyser	jd	

1 Items in brackets ruled out.
2 'a namyse' = an amice. 3 'a nynare' = an hymnary, an unusual book to find in a simple parish church, as the few hymns sung in the Latin services were usually contained in the breviary.

It of Jenkyn Abaddam	ijd
It of the estr money	iiijs
It of John clerk of Egylton for ij yeres comyn	viijd
Sum Re vliis iiid	

15		
Paymenttes	Justies et	Iniusties
In p(ri)mis the seyd wylly(a)m Barett (by ye consent and grement of ye seyd wardens	mynd	
And paryshe hath payd for waxe	xiijs	jiijd
It for waxe makyng & mete & drynke	iijs	iiijd
It for ye obytt & lampyes	iijs	iiijd
It for a tyne botell & a cruett	XXd	
It for makyng of ye estr tapre	iiijd	
It for a chaff nett	vjd	
It for franck & senc	iijd	
It for Repratyons & mendyng		
of the vestmenttes	∫ xij ⁸	iiijd
It for lynnyne cloth to make	1	
A syrplys & iiij Albys	xviij8	iijd
It for makyng of the seyd	1	
syrplis & iiij albys	∫ iij®	iiijd
It for iiij gyrdylles to the vesteme(n)ttes	iiijd	
It towards the pavyng of the church	iijs	iiijd
It towards the mendyng of ye clocke	iiijd iijs ijs	viijd
Sum(m)a solut iij ^{li} iij ^s Et sic debet p(re)dicto Willmo Rectori ecclie p(er)rolics de sto	Barett ke Edyth x	xs ixd

16

The accowunt mad by John Fryer & John Tu(m)kyns churche wardens in the yere of or lord god a thowsand fyve hu(n)dred xxxixth the fyrst day of may.

Im p(ri)mis Recevyd for Rentt	∖ xiij ^s	iiijd
for spys(er)s plac It for estr money	iij ^B	vd
It of Roger whyte for Rent	xvd	
Su Rs xviijs		
It payd for the obytt and lampes	iijg	iiijd
It for the Repratyon of ye belies	iijs iijs ijs	viijd
It for Ropes	ijs	iijd
It for lokes & keys	xxijd	
It for whyt lether	iiijd	
It for m(er)ceme(n)ttes for stoke brygges cawsey	iijs	
Sm solis xiiijs vd		
Et sic Remanet ecclie iiijs vd		

17, 18, blank.

19

The Account of John Boge & Robert ockle church wardens in the yere of or lorde a m cccccth xliiith made the xxvjth day of m(ar)che

Recevyd In primis off John Freyer Itm For the ester tapur Itm For Whites closse [It For white] Sm [xxijs ijd] xixs Payde by the seid p(ro)ctors In primis For makyng of a whele Itm For the hangyng of a bell Itm For a rope Itm For a obyte Itm For a obyte Itm For a obyte Itm For mendyng of the Tenacull and the cloke & the kandlesteke Itm in money to pay for the organs Itm For makyng of waxxe Itm For makyng of the Shorples Sm xvs Sm reman ecclie iiijs 20 The Accownte made by John boge & Robert ockle churche wardens of stoke Edith the xxth day of Aprell in the yere of owre lorde 1544th Recevyd In primis off John Fryer Itm of Whites closse Itm of John tydnor Itm of Richard browne For lyght Itm the Ester tapur Itm of Richard andros for lyght S, xxvjs vd Paide by the seid p(ro)ctors In primis For waxxe Itm For the obite Itm for oyle Itm for oyle Itm for lyme & the karage & the leying of the stones Itm for makyng of the ester tapur & iiijs Itm for lyme & the karage & the leying of the stones Itm for makyng of the ester tapur & iiijs Itm for waxxe				
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Sm xxijs ijd xixs xviijd xviid xviijd xviid xviijd xviid xviijd xviid xviid xviid xviijd xviid xv	Itm For	the ester tapur		Vd
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ockley churche wardens of stoke edyth the vijth		day of Approll in the year of an land	and 1545	
day of Apryell in the yere of or lord god 1545			god 1545	
Recevyd				
In primis of the Reman iij ⁸ xj ^a				
In primis of John Fryer xiijs iiijd	In primi	s of John Fryer	xiij ^B	iiijd

1 Ite	ms in	brackets	ruled	out.
-------	-------	----------	-------	------

Itm of whytes closse Itm of thom(a)s baddam for Ryc Robertes bequethes Itm for the Estr tapre Sm Rs	} xxvijs	vs iiijs vijd	jđ
payd by the seyd p(ro)ctur	S		
In primis for the lamp & the obyte Itm for bell ropes Itm for tylyng		iij ⁸ xxijd ijd	iiijd
Itm for mendyng the ryng to the churche dore Itm for the organs	}	jd viijs	viijd

 $\begin{array}{lll} S_m^{\,s} & Soluccons & xij^{\,s} & j^{\,d} \\ Et & rema\vec{n} & ecclie & [xj^{\,s} & vij^{\,d}]^1 & xv^{\,s} & vj^{\,d} \end{array}$

22

The accounte made by John Boge and Robert ockley churche wardens the ixth day of maye in the yere of or lord A m.ccccc.xlvj. 1546.

Recevyd In primis of John Fryer Itm for the estr tapree [sic] Itm for a quarte of honye		xiijs iijs iiijd	iiijd Vd
Itm for the Reman of the last accounte S _m Rs xxxij ⁿ vij ^d	}	XV8	vjd
Payd by the seyd p(ro)ctrs			
In p(ri)mis for kepyng the obit Itm for waxe		ijs viijs	jd
Itm for makyng of the waxe Itm for bordes in the rode	7	iijs	
saler and for the settyng upe Itm for goyng to hereford	{	iijs	
to apere before the comyssyon(er)s ² Itm for oyle	}	vj ^đ ij ^đ	
S _m soluco(n)is xvj ^s ix ^d et sic Reman ecclie xv ^s	xd	,	

The entries now cease for twenty years, as though the churchwardens had no more heart to keep up their accustomed duties, and no need to check the church goods, most of which had been confiscated.

Itm to Walter Maio for trussynge the fore belle vjd xxd whele and the grete bell whele Itm for makyng a bell whele

1 Ruled out.

the comyssyon(er)s' here mentioned would be those of Edward VI, who were empowered to visit all parish churches and make an inventory of their contents, with a view to the suppression of images, vestments, ornaments, and plate, except a 'surplyce' only, and one necessary cup and paten.

28	
Itm for nayles Itm or expences in goyng to ledbury to Seke a boke Itm for whyt lether Itm to Thom(a)s gardnar for iiij dayes bourde	vjd vd ijs viijd xviijd
Suma total xxxj ⁸ vij ^d	Aviij-
The Accompte made by John Jefferes and Walt Maio churche wardens the xxviij daye of march Ann dni millesimo qui(n)gentessimo ixvjº 1566	
Imprimis Receaved of Anthony Tu(m)pkyns Itm Receaved of Richard Tydnor Itm Roger Maio	iijs ijs iijs
of Willm Home	XXd
Itm of Tho(m)as Gundy	xiiijd
Itm of Richard Androwes	ijd mid
Itm of Thom(a)s Coser Itm of John Spied	iiijd ijd
Itm of Elizandre Hydes	iijd
Itm of Thom(a)s Wheler	xviijd
	,
24	
Itm of Mastres lyngen for the Courte	vjs
Itm of Thom(a)s Gardener	jd
Itm of Rouland P(ar)sons	ijd
Itm of Johane lane	xiiijd
Itm of Humfrey Nurbery	vijd
Itm of Willm Nurbery	vijd
Itm of John Turner	vijd
Itm of Willm Hodges	iijd
Itm of James dansore	xd
Itm of Savecur Hodges Itm of John Hynton	vjd iijd
Itm of Richard Jefferes	vjd
Itm of Thom(a)s bucher	vjd
Itm of Willm Hodges	vjd
Itm of Richard Hunte	iiij́d
Itm of John Jefferes for rente	iiijd
Sma total xxvj ⁸ iiij ^d	
Imprimis layd owte & payd by the seyd p(ro)ct	ors
for a booke of Homelyes	ijs
Itm for a bible ¹	vjs viijd
Itm for the boocke of Calvins Institutions	?s iiijd
Itm at visitacon	iiijd
Itm at gen(er)alls Itm at Bodenham	xijd xvid
Itm at Bromyard	xvj ^d viijd
Itm a locke	vjd
Itm a tiler	vjd
Itm for nayles	iijd
Itm a glasier	vjd
Itm to the Smythe	iijd

¹ Observe the purchase of a Bible, one book of homilies, and Calvin's *Institutions*, and iiij^d laid out at the visitation, when the parish was probably reprimanded for not having them before.

29			
Itm bredd & wyne		xviid	
Itm for lyme		xjjd	
Itm to Richard Smythe & Thom(a)s Garden	let	A1]-	
& ther (?) wffe		ijs	vjd
Itm for a blocke	7	-,	. 1
and the Cuttyng	7	ijs	iiijd
	-	-,	,
Sma total xxvij ^s vj ^d et sic remanet Gardianibz	44444		
Temaner Gardianioz	iiijd		
26 The Accompe of Thomas Gundye			
and Jhon Turnor churche wardens			
Anno dni 1567.			
Imprimis Receaved of John Jefferes	3		
for rente	5	iiijs	
Itm of Savecur hodges		vjd	
Itm of Thomas Bucher		vjd	
Itm of Thomas Cuseden		vjd	
Richard Jefferes		vjd	
Itm Receaved for breade & wyne		iiijs	iijd
Sma total ix ⁸ iij ^d			
T: 1 1 / 1 1		**** 3	
Itm layd for a belrope		xxiijd	
Itm the makyng of a byll at ludyardyne		iiijd	
Itm layd out for tyle		iijs	
Itm for Cariage from the quarell Hoome		ijs	***
Itm payd to Richard Smythe for tylynge		iijs	ijd
Itm for lyme		vjd	
Itm for mendyng the bauldrickes		iijd	
Itm nayles		ijd	
Itm the mekyng of the waxe		iijd	xd
Itm layd out for bredd & wyne		iiijs	Xd
Sma total xvj ⁸ v ^d et sic			
remanet Gardianibz vj ⁸ x	:d		
On 4 1 5 To 1 1 To	7		
27 The Accompte of Richard W			
and Richard Smythe churche	e warde	ns	
Ann dni 1568.			
Imprimis layd oute at visitacon		iiijd	
Itm brede & wyne		vjd	
Itm iij belropes		vjs	
Itm payd to Walter Maio for ij dayes worl	ce	xxijd	
Itm to Rouland P(ar)sons		iiijd	
Itm for meete & drineke for worke men		XXd	
Itm for timbre that dyd lacke		Vď	
Itm for nayles		iiijd	
Itm for bredd & wyne		iijs	iiijd
Itm payd to Walter Mayo & for Cariaydes	ļ		
of belropes	5	iijd	
Itm to Walter Mayo		iiijd	
Itm to Thomas Smythe		vjd	
Itm at visitacon		iiijd	11113
Itm the int(er)dicsion of the churchel		iijs	iiijd
Sma total xix ⁸ vj ^d			

 $^{^{1}\ \}mathrm{No}\ \mathrm{doubt}$ the church was under an interdict; hence the large fine.

Itm layd out at the archdeacons

Itm expences at the trussing of a bell

Sma total viijs xd

visitacon

This completes the inventory and churchwardens' accounts in the earliest register book. Then follows the entries of baptisms, marriages, and burials from 1538 to 1583. These are for the most part copied carefully into the second volume of the registers, and there is not space to print them in the *Transactions*. There are, however, certain other entries of great interest, of which mention must be made. They will be taken in order of date rather than that in which they chance to come in the book, which at some period seems to have been rebound, and certain items of later date inserted. Thus on the back page (164) we find the following entry, which obviously is of pre-Reformation date, probably circa 1532, when the book was begun:

The duety & charges of the deacon of Stoke Edythe.

Furst & spetyally to be obedyant & to gyve entendans to the p(ar)son or to ye p(ar)sons depute at all tymes necessary as well at vysetyns as at mastyme dayly wyckdays.

It to Ryng curfue Nyghly (sic) all the yere (excepte nyghtes of obytes) at a convenyent houre & usuable custom therefore.

It to Ryng daybell dayly weekedays at a convenient houre & usuable custon therefore betwexe the natyvyte & ye anucyacon of or ladye

It to entend ye queyre & kepe the clock¹ always so that ye p(ar)esh do Repare Hym in all thyngges to ye seyd clocke beyng nedefull.

It to ryng none at all festes in the... usuable there and to helpe ye clerke to Ryng ye... (Remainder too imperfect to decipher).

Evidently this was a recognised office held during earlier centuries by one in minor orders, and corresponding more nearly to the freehold office of a parish clerk than to a deacon as we understand it today, which is always a preparatory step to the priesthood. But the interesting point is to notice how long the office continued.

Bishop Scory's register contains the entry dated 12th December, 1571, "Roger Whelar, literatus ad officium diaconi sive clerici parochialis de Stoke Edith". Among the burials we see the following:—

1590. John Stoddard, deacon and schoolmaster, buried 11th February.

There is also mention of Mr. Minton, deacon, in 1681, and in 1726 Thomas Ustans, Parish Clerk was buried. But none of these appear to have been in Deacon's orders, so far as can be gathered from the Ordination lists.

¹ A clock was bought in 1533.

Another entry is headed 'The promises for the organs'. This is undated, but as John Boge, John Tumpkyns, and John Fryer are all in the list, the date may be conjectured as c. 1535– 1538, when these worthies were churchwardens. The accounts for 1543 and 1545 contain items:

in money to pay for the organs ij and viij viiid which may represent the balance required. The subscription list begins (p. 161):

> First of M. lyngen the yeldr vis viiid It of M. lyngen the yongr xiijs iiijd It of the p(ar)son of Stoke fully cotetyd & payd vis viijd

The total subscribed was £3 6s. 8d. The Lingens were the principal landowners of Stoke Edith until the death in 1684 of the Lady Alice Lingen, widow of Sir Henry Lingen, who figures largely in Webb's History of the Civil War in Herefordshire.

There is another list (pp. 61-65) of gifts headed:

Hij Sunt q' dona dederunt ad campanas nras (nostras)

dated 17th and 24th September, 1570. Curiously, there is no mention here of the principal people of the parish, such as the Lingens, nor of the parson himself, and the largest sum given is xijd. All these entries were written upon the various pages of the original parchment book, but there are two more records written on paper, and bound up with this first volume. Both are dated 1585, and appear to be the work of Sir Richard Winter, curate to Mr. Edward Cooper, then vicar of the parish.

The first is a note about the churchyard and the obligation of each householder of the parish to keep in repair a portion of the churchyard wall.

STOKE EDETH

DECIMO DIE AUGUSTI ANNO DNI, 1585

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A note taken in the daie and yeare a bove writen, of the enclosure a bout the Church yeard; And of every mans parte and perke what length he ought to make: And to what mesuage the same belongeth. And also mered and marked out with mere stones by the owners thereof, And in witness that this boke shall remayne as a record of p(er)petuall memory those that can write, have subscribed their names and thother that cannot write have putte their markes at the end of the said note.

Beginning at the north end of the garden belonging to the messe called Mortons place, right over against the north est cornor of the Chaunsell, And from thence westward toward the p(ar)sonag, And so round a bout the church yeard unto the said cornor of the garden again

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- i. Inprimis, one perke and a quarter belonging to the personage, shotting frome the cornor of the said garden toward the p(ar)sonag.
- 2. Itm. two perkes belonging to a mesuag in Showall and in yeard land, now in the occupacon of Richard More and James Baddam.
- 3. Itm. Half a perke belonging to A mesuage and halfe a yeard Land, lying in showall aforesaid, now in the occupacon of Anthony Tumpkins.
- 4. Itm, two perkes belonging to the Corte of Showele now in the occupacon of Anthony Tumpkins aforesaid.
- 5. Itm. one half a perke belonging to a measse lying in Showall aforesaid, now in the occupacon of Richard Tumpkins.
- 6. Itm. Half a perke belonging to one measse, lying at the Castle, nowe in the occupaco(n) of Ellinor norman and Anthony Halling.

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- 7. Itm. one halfe perke belonging to Stokes brigmyll, now in the occupacon of Thomas Brooke.
- 8. Itm. one perke belonging unto the messuage called the Chauntry howse, nowe occupied and taken into the Courte of Stoke.
- 9. Itm. Halfe a perke, belonging unto A mease called Andros now in the occupacon of William Phillips.
- 10. Itm. A quarter of one perke, belonging unto a measse called Whittes, lying uppon Emottes Held, now in the occupacon of Walter Maiowe.
- 11. Itm. A quarter of one perke, belonging to a measse called carlles, lying upon Emottes Held aforesaid now in the occupacon of Thomas Jefferes.
- 12. Itm. A quarter of one perke, belonging to a measse, of customary Land, lying upo(n) Emottes Held, now in the occupacon of Roger Whiller.

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- Itm. Halfe a perke belonging to a measse in pirton called Pages, now in the occupacon of William Hodges.
- 14. Itm. Halfe a perke belonging to ij measses called Cuttes and Lares, lying in Pirton aforesaid, nowe in the accupacon of Roger Whiller.
- Itm. A quarter of A perke, belonging to A measse in pirton aforesaid called (blank) now in the occupacon of Alice mynton.
- 16. Itm. A quarter of a perke belonging to a measse lying in Stoke called (blank) now in the occupacon of Edmund Higges.
- 17. Itm. one perke belonging to A measse in the Russettes called the Russettes.
- Item. A quarter of one perke belonging to A measse called Vordes, now enclosed with the Corte orchard.

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- 19. Item A quarter of a perke belonging to a measse called the mylhowse, nowe occupied with the corte, And enclosed within the corte orchard.
- 20. Item one perke belonging to A measse in Stoke called the Farme, Late in the occupacion of Robart ocley.
- 21. Itm. A quarter of one perke belonging to A measse called owens lying in Stoke now in the occupacion of James Dantford.
- 22. Itm. Halfe A perke, belonging to A measse now in the occupacion of the said James Dantford, lying on the north side of the aforesaid measse called owens.

23. Itm. Halfe A perke belonging to A measse called (blank) now in the occupacon of John Tailor, lying in Stoke.

24. Itm. A quarter of A perke belonging to A measse called Bugge lying in Stoke, now in the occupacion of John Jefferes.

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25. Itm. one perke belongeth unto fower measses, that is to wyt, to Stanbroke, peakes, Hen barowes and to Capons, nowe in the tennure of William Fryer.

26. Itm. Half a perke belongeth to two measses, vidz to spicers and to the free barne, (being freemesses) now in the occupatio(n) of the said William Fryer.

27. Item. A quarter of one perke belonging to A measse, lying on the south side of Stoke and the south side of the crosse theree, now in the occupacion of Thomas Jefferes.

28. Itm. A quarter of one perke belonging to A measse in Stoke on the south side of the corte orchard, now in the occupacion of John Walton, called (blank).

29. Itm. A quarter of on perke, belonging to A measse uppon Emottes held called (blank) now in the occupacion of Richard Scliser.

30. Itm. A quarter of A perke belonging to A measse uppon Emotes held called (blank) now in the tenure of John Alcok.

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31. Item Halfe A perke belonging to A measse in Pirton, called (blank) now in the occupacion of Savakar Hodges.

32. Itm. Half a perke belonging to A measse called (blank) lying in Pirton aforesaid uppon the west side of the waye that leadeth from Pirton in the fild called Peryen fild, now in the occupacion of Humfrey Carelesse.

33. Itm Halfe A perke, belonging to A measure called (blank) on the Est side of the waie, that Leadeth from Pirton into Peryen fild, now in the occupacion of William Carelesse.

34. Itm. Half A perke belonging to A measse called (blank) lying on the west side of the said Lane, that Leadeth from Pirton into Peryen fild And right over a gainst the fore said measse wch ys now in the occupacion of William Carelesse a foresaid now in the occupacion of John Turnor.

35. Itm. Halfe A perke belonging to A measse called (blank) lying on the north side of the waie that Leadeth from Pirton to Stoke nowe in the occupacion of Robart Jefferes.

36. Itm Halfe A perke videlicet, the breadth of the gatehowse belonging to A measse called (blank) lying on the north side of the waie that Leadeth from Pirton unto unto (sic.) Stoke and next unto Stoke, now in the tenure of Roger Carelesse.

37. Itm. to the Corte of Stoke a perke and three quarters.

38. Itm ij perkes belonging to the Farme in the Freetowne, Late purchased of the King by John Lingen Esquier, the Length of of (sic.) the Church howse being p(ar)te of the said two perkes.

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39. Itm A perke belonging to A fame (sic.) in the Freetowne a fore said, now in the tenure of Rychard Williams gent.

40. Itm three quarters of A perke belongeth to A measse in the free towne aforesaid, called Freemans now in the occupacion of Thomas Jefferes, Smyth,

and From thence unto the place that we beganne at, a r (sic.) fower perkes, the wch belongeth to norton place.

In Cuius rei testimonium Anthonius Tumpkins, Gulihelmus Frier, Jacobus Danford et Rogerus Whiller scripserunt noia sua, propriis manibus. Reliqui p(ar)ochiani signa sua apposuerunt.

Antony Tomkyns, Rogerus Whiller, William Frier, James Danford.

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Signa quae p(ar)ochiani usi sunt nominibus suis ut patet.

sign. Jacobi Baddam

sign. Rici Moore

sign. Johnis Jefferes sign. Johins Tailor

sign. Edmundi Higges

sign, Rici Smyth

sign. Walteri Maiow

sign. Rici scliser

sign. Johnis Alcot

sign. Johnis Walton

sign. Humfredi Carelesse.

sign. Johnis Turnor

sign. Willim Carelesse

sign. Savacari Hoges

sign. Johnis gibbons

sign. Willim Hodges

sign. Thomæ mynton

sign. Robti Jefferes

sign, Rogeri Carelesse

sign. Richardi

Carwardyne

sign. Thomae

Jefferes ferarij

sign. Johnis Drewe

sign. Anthonij Hallenges

sign. Rici Tompkins

sign. Thomae Jefferes

This system was well known in the 17th and 18th centuries. There is a similar list in the registers of Middleton-on-the-Hill, and an examination of the churchyard wall there will show breaks where one man's obligation ended and another's began. The churchyard at St. Weonards also contains boundary stones inscribed with the initials of those who repaired the various lengths of wall in the 18th century.

The second list of entries is of the seats and kneelings in the church allotted to the various houses:—

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Septimo Die mensis Januarij Anno Dni 1585.

A note of the seates and kneelinges within the parishe Church of Stoke Edeth And the names of the personns and messuages that the same seates and kneelinges belongeth unto.

Wheras the seates within the Churche of Stoke aforesaid were decaied & broken And also some of the p(ar)ishioners hadd noe seattes to kneele in, Richard Winter then there curat, being Desirousse to have the Churche furnished with good seattes, And that those that hadd not kneelinges, might have covenyent seattes to kneele in, obtayned freely of Mr. Edward Cowper p(ar)sone there and of Mr. John Blount farmer of the p(ar)sonage, sufficient tymber to furnishe the said Churche with seattes. And for as much as the said seattes ar now errected and fynished by Walter Maiowe carpenter, at the charge of the owners therof. And that to some of the seattes, there ar twelve p(er)sonnes and unto other some a Levene, that do make tytle and clayme there unto so that every man doth not knowe where his kneeling ought to be of right. To the entent that every man may know where and in what seate his kneeling ys in, And to the avoiding of contraversersies that may happen here after for chalenging the upper seates and kneelinges (wch vs a point of meere folly and vayne glory) [P. 125.] The p(ar)ishioners (for the causes aforesaid) with one assent and consent are contented that the said Richard Winter their curatt

Anthony Tumpkins Savarkar Hodges
William Frier Humfrey Carelesse Richard Carwardyne

Churchwardens

John Turnor
James Danford
John Jefferes

shall (according to their knowledges & discrecion) sett downe and appoint to every man, where his kneeling shalbe. The A bovenamed men hath had conference of the said matter, And hath sett downe and appoint every man his kneeling as hereafter is specified begining at the south side of the Church so downe ward toward the belhowese...

Inprmis, The Closett.

Itm, the kneeling in the said Closett next unto Church wall belong . . . unto the Courte of Shoule, now the occupacion of Anthony T[umpkyns].

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- 2 Itm the second kneeling in the said closett belongeth to A measse called Spicers nowe in the occupation of William Frier.
- 3. Itm. the third kneeling in the said closett belongeth unto A mesuage in the Freetowne, nowe in the tenure of Mr. Williams.
- 4. Itm. the fowerth kneeling belongeth unto a mesuag in the freetownc aforesaid, late purchased of the king by John Lyngen Esquior, now in the occupacion of Richard Carwardyne.

Itm the fift kneling belongeth to the Courte of Showle p(er) me R. Winter.

[This last paragraph is interlined].

The seates next beneath the Closett, In the seat next to the said Closett ar fyve kneelinges. The kneeling next unto the walle belongeth unto A mesuage called Sanbrokes nowe in the occupacion of William Frier.

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- 2. Itm second kneeling, belongeth unto A mease in Pirton called (blank) lying uppon the west side of the waie, that Leadeth from pirton into Peryen fild and also uppon the weste side of the streame of water there, now in the occupacion of Humfrey Carelesse.
- 3. Itm the thrid (sic.) kneeling belongeth unto A mease in Pirton a foresaid called (blank) lying uppon the west side of the said water streame, and also uppon Est side of the orchard belonging a measse called Cuttes and lacies, the A bove named measse is now in the occupacion of Savakar Hodges.
- 4. Itm. the fowerth kneeling, belongeth unto A measse in Pirton called (blank) nowe in the occupation of John Turnor lying uppon the west side of the

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said water streame, and betwene the said streame and the measse in the occupation of the within named Savakar Hodges.

5. Itm the fifthe kneeling belongeth unto A Measse nowe in the occupacion of William Carlesse called (blank) lying in Pirton a foresaid upon the north of the said water streame.

The second seate.

In the second seate are fyve kneelinges.

- i. Inprimis, the kneeling next unto the walle belongeth unto a mesuage. in Showall, now in the occupacion of James Baddam and Richard Woore.
- 2. Itm the second kneeling in the said seate belongeth unto A measse called (blank) now in the occupacion of Robart Jefferes, lying in Pirton uppon the north sid of the way.

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that Leadeth from Stoke unto Pirton.

- 3. Itm. the third kneeling in the said seate belongeth unto A measse called (blank) lying in Pirton on the north side of the high waie that Leadeth frome Stoke unto Pirton a fore said and also next unto Stoke now in the occupacion of Roger Carelesse.
- 4. Itm. the fowerth kneeling in the said seate belongeth unto A messuage lying in the Freetowne called Freemans now in the occupacion of Thomas Jefferes.
- 5. Itm. the fifthe kneeling in the said seate belongeth unto A measse in Stoke called (blark) now in the occupacion of John Tailor.

The third seate beneath ye Closett.

In the said seate ar fyve kneelinges,

i. Inprimis the kneeling next unto the wall belongeth unto A measse in Stoke called Bugges, now in the tenure of John Jefferes.

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- 2. Itm the second kneeling in the said seat belongeth unto A measse in pirton called Pages, now in the tenure of Willia(m) Hodges.
- 3. Itm. the third kneeling in the said seate belongeth unto Stokesbrigmyll, now in the occupacion of Thomas Broke.
- 4. Itm. the fowerth kneeling in the said seate belongeth unto A measse in Stoke called the farme, Late in the occupation of Robart ocley.
- 5. Itm the fifthe kneeling in the said seate belongeth unto A measse in Stoke called (blank), nowe in the occupation of Edmund Higges.

The fouerth seate beneth ye Closett.

In the said seate ar fyve kneelinges.

i. Inprimis, the kneeling next unto the wall, in the said seate, belongeth

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unto a measse in Stoke called Andros, nowe in the occupation of James Dantford.

- 2. Itm the second kneeling in the said seate belongeth unto A meassuag in Showall called (blank) now in the occupation of Anthony Tumpkins.
- 3. Itm the third kneeling in the said seate belongeth unto A measse in [Showall is ruled out] now in the occupation of James danford called Owens.
- 4. Itm, the fowerth kneeling in the said seate belongeth unto A measse in pirton called lacies nowe in the occupation of Roger Whiller.
- 5. Itm. the fifth kneeling in the said seate belongeth unto a a measse now in the occupacion of Thomas Jefferes, lying by the crosse.

 The fifte seate benethe the Closett.

In the said seate ar fyve kneelinges.

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- i. Inprimis, the kneeling, in the saide seate nexte unto the wall, belongeth unto A meesse in Stoke called (blank) lying upon the south sid of the Courte orchard, now in the occupacion of John Walton.
- 2. Itm the second kneeling in the saide seate belongeth unto a measse in pirton called (blank) now in the occupacion of Thomas Mynton.
- .3. Itm the third kneeling in the said seate belongeth unto A meesse at the Castle called Duddes, now in the occupitn of Anthony Hallinges.¹

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5. Itm the fifth kneeling in the said seate belongeth unto a meesse uppon Emottes held, now in the occupacion of Richard Sclyser.

The seates benethe the Churche doore, uppon the south side. In every of them are fower knelinges.

i. Inprimis the kneeling next unto the wall, in the seate next unto the church Doore, belongeth unto A meesse in Stoke called Nortons place nowe in the occupation of Richard Smyth.

- 2. Itm the second kneeling in the said seate, belongeth unto A measse in Stoke, called Andros now in the occupation of James Dantford.
- 3. Itm the third kneeling in the said seat belong unto A meesse in

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Stoke lying on the south side of the Courte orchard called (blank) now in the occupacion of John Walton.

4. Itm the fowerth kneeling in the said seate belongeth unto Λ meesse uppon Emottes Held called (blank) now in the occupatio of John Alcott.

The second seate, in the which ar fower kneelings.

- i. Inprimis, the kneeling next unto the wall in the said seate, belongeth unto A meesse in Pirton called (blank) now in the occupation of Thomas mynton.
- 2. Itm. the second kneeling in the said seate belongeth unto A meesse in Emottes Held called Whites, now in the occupation of Walter Maiow.

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3. Itm the third kneeling in the said seate belongeth unto A meesse in Stoke called (No more written).

4. Itm. the Fowerth kneeling in the said seate belongeth unto A meesse in Stoke, lying uppon Emottes Held called now in the occupation of Richard Scliser (sic.).

The third seate, in the which ar fower kneeling.

- i. Inprimis, the kneeling nexte unto the wall in the said seate, belongeth unto A meesse in Pirton called Lacies, now in the occupation of Roger Whiller
- 2. Itm. the second kneeling in the . . . belongeth unto

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A meesse in Pirton called Pages, now in the occupation of William Hodges. Itm the thrid kneeling in the said seate, belongeth unto A meesse called (blank) nowe in the occupation of James Dantford.

Itm the Fowerth kneling in the said seate belongeth unto A meesse (No more written).

The fowerth seate.

Inprimis, the kneeling next unto the wall, in the said seate belongeth unto a messuage in Stoke, called (blank) nowe in the occupacion of . . .

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Itm. the second kneeling in the said seate belongeth unto A tenement late erected, called Happingall, now in the tenure of John p(ar)sons.

The seates uppon the northe side of the Church, Above the Churche doore.

Inprimis the uppermoste seate, belongeth wholy unto the Courte of Stoke.

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The second seate, in which ar fyve kneelings.

- i. Inprimis the kneeling next unto the wall, in the said seate, belongeth unto the Courte of Shoule now in the occupation of Anthony Tumpkins.
- 2. Itm. the second kneling in the said seate, belongeth unto the farme in the Freetowne, the which John Lingen Esquior Late purchased of the king now in the occupation of Richard Carwardyne.
- 3. Itm. the third kneeling in the said seate belongeth unto A meesse in the Fretowne aforesaid called (blank) Late in the occupation of Willia Home, now in the tenure of Richard Williams gent.

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- 4. Itm. the fowerth kneeling in the said seate belongeth unto A meesse called Sanbrok now in the occupation of William Frier.
- 5. Itm the fifte kneling in the said seate belongeth unto A meesse in Stoke called the Chauntere Howse.

The third seate, in the which ar fyve kneelinges.

- i. Inprimis the kneeling nexte unto the wall in the said seate, belongeth unto A meesse in Showall called (blank) now in the occupation of James Baddam and Richard Moore.
- 2. Itm the second kneeling in the said seate, belongeth unto the meesse last aforesaid, that ys in the occupacion of the said James Baddam & Ry Moore.
- 3. Itm the third kneeling in the said seate belongeth unto one meesse and Halfe.

¹ Fourth kneeling omitted.

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yeard Land in showall, called (blank) now in the occupation of Anthony Tumpkins.

- 4. Itm the Fowerth kneeling in the said seate belongeth unto A meesse called (blank) nowe in the occupation of William Frier.
- 5. Itm, the fifte kneeling in the said seate belongeth unto A meesse called (blank) now in the occupation of James Dantford.

The Fowerth seate, in the which ar fyve kneelinges.

- i. Inprimis the kneeling next unto the wall in the said seet, belongeth unto A meesse in Stoke called Spisers now in the occupation of William Frier.
- 2. Itm. the second kneeling in the said seat belongeth unto A meesse in the Freetowne called Freemans, now in the

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occptio of Thomas Jefferes als Smyth

- 3. Itm. the third kneeling in the same seate belongeth unto A meese in Stoke called (blank) now in the occupation of John Tailor.
- 4. Itm the Fowerth kneeling in the same seate, belongeth unto Stoke brigmill now in the occupation of Thomas Broke.
- 5. Itm ye Fifte kneeling in the same seate belongeth unto A meese in showell now in the occupation of John Perens.

The fifte seate.

The said seate ys ordayned and appointed for the maydens of the p(ar)sonage and for thother maydens of the p(ar)ishe to kneele in.

The seates beneeth the Church doore, uppon the northe side of the Churche.

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i. Inprimis the kneeling next unto the wall in the said seate belongeth unto A meese lying in Pirton uppon the north side of the Hight waye that leadeth frome Stoke unto Pirton, nowe in the occupation of Robart Jefferes.

2. Itm. the second kneeling in the same seate belongeth unto A meese in Stoke called the mylhowe, now taken in into the Court orchard.

3. Itm. the third kneeling in the same seate belongeth unto A meese in Stoke called Peekes now in the occupation of William Frier.

4. Itm the Fowerth kneeling in the same seate, belongeth unto A messe at the Castle called Duddes now in the occupation of Anthony Hallinges.

The second seate in the which ar fower kneelings.

Some pages missing, between the present pages 142–3. This is probably due to the book having been borrowed to settle a dispute as recorded in a note on a page between the present pages 142–3.

This old Book (upon Mr. Cook of Showals raising a controversy about a kneeling in the church) was demanded by the Ecclesiastical Court at Hereford, where they cut out several leaves, and would not restore it to the Parish of Shole where it always had been, without paying to the Register ten shillings.

VOLUME II

This volume begins with a transcript of the entries of baptisms, marriages and burials recorded in volume 1. Then from 1584-

1596 the entries are continued in the same hand, which appears to be that of Richard Dalton whose induction is recorded on 14th August, 1596 (Edward Cowper died the previous July). Dalton's entries continue till 19th March, 1617–18, and he was buried on 27th August, 1618.

There are no direct references to the Civil War in this volume but it may be noticed that there is some confusion about the entries from 1620 onwards. Some are found in the old volume but were not transcribed into the new one. (Some of the entries are of visitations). The entries are continued up to 1645, then there is a gap between 1646 and 1650, and they are then entered up to 1656.

From this year until 1660 entries are few, there are none for some years and others have only one or two records. But always the date of baptism, not as in some cases during the Commonwealth of births.

There is no record of the murder of the Rector of Tarrington at Stoke Edith, the Rev. R. Pralphe, as mentioned in Webb's The Civil War in Herefordshire, volume II, p. 20.

An entry in 1670 records 'The church of Stoke Edith being rebuilding this year the children born in this parish were christened at Dormington or Tarrington'.

As is so often the case, the most interesting points are the notes and comments written at different times on odd papers, or on the covers of the Registers.

Thus, on the last page of the parchment section of the second volume there is a note by Henry Rodgers that he had transcribed the preceding entries relating to the 'Deeds tythe due to Stoke Edith' and that they were taken out of Roger Wheeler's book. These are followed by an entry of other 'Deeds tyth' transcribed by Robert Scudamoir out of Mr. Wargent's book, vicar of Yarkhill, 1571–1616, rector of Stoke Edith, 1663–1684.

On the next page we read notes made by Richard Winter, curate to Edward Cowper, who records the findings of human bones in various places outside the churchyard, and the recasting of the bells. The latter are of much interest:

'Md That the third Bell and the forebell, wer cast anew. The third Bell at the chardge of the p(ar)ishioners, And the forebell by the help of good people, and the devotion of Richard Wynter, curat.

Md. That the forebell was casted three tymes before he came unto his p(er)fect note. He was cast the xxth of maye in Ano dni 1586, being the last of three tymes.

P(er) me Richardum Winter curatū ibidem.' Other entries by Winter refer to the wells and the chancel:

'The Lowermost well was made in Ano dni 1585, And the myddle well enlarged.

The toumbe in the chaunsell was erected in ano prdict, And ij formes for the chaunsell for the comunycants to kneele at. All these things were done at the charges of the said Richard Winter then there curat.

It is also recorded that John Prat 'cleerke' and Roger Hoore 'cleerke' canons residentaries of Hereford 'did upō their owne charge errect and buyld the Chappell on the north sid of the Church of Stoke'. Also 'That the porch was newly silled and the twoe sides newly tymbred the nynth day of January in the yeare of o'Lord God a thowsand fyve Hundred fower score and seven by Walter Maiow carpenter at the Comon charges of the parishe. The tymber was given unto the parish by well disposed people at the request of the said Rychard Winter cleerke.

Scriptum p(er) me Ricu Winter.'

The Rev. John Prat was Prebendary of Gorwall and Overbury from 1389 to 1415, or, less likely, of Putson Minor from 1505 to 1513. There were two of the same name. Roger Hoore, or Hore, was prebendary of Warham from 1407–18. Probably Winter copied an inscription to the foregoing effect before it was either destroyed or became illegible.

The last of these odd entries is to record:

xijth of

october Md. that the Church and Chauncell was whited in october 1588.

Finally we come to an amazing list of Briefs, and the amounts raised by them, carefully written in the latter part of the register and bound upside down in the volume. A brief is a Royal Command, or an appeal for money authorised by the King in Council, and was a regular way of raising funds for good causes, or helping parishes or persons in distress through plague, flood, fire, or other disasters; especially fires in churches.

An Act of Parliament of 1707 seems to have made them a regular feature of the bishops', archdeacons', and chancellors' visitations, two every year. Churchwardens brought them back from the visitations and had to give an account of the money collected to the official appointed for the purpose.

The earliest record of one in the register of Stoke Edith is that for 1661, when a new book was bought for the purpose. From this date the entries continue intermittently until 1707, and then continuously to 1784. This is believed to be one of the best, if not the best, record of briefs in any one register. They were read at Stoke Edith and at Westhide, then a chapelry of Stoke Edith, and the amounts collected carefully noted. In 1661 11/6 was collected for the inhabitants of Ilminster at Stoke Edith and 7/- at Westhide. An undated entry records that £2 16s. 8d. was collected

at the two parishes for 'Palls-Church in Lundon' obviously after the fire. In 1670 most of the inhabitants seem to have subscribed towards the relief of 'distressed Captives in Slavery under Turkish Pirates' when £3 5s. 0d. was raised for the purpose. It may be noted that in Monnington church, Herefordshire, there is a memorial to Francis Perrott who went as a volunteer to fight against the Turks and died in 1660. In 1681 the Protestants in Poland, in 1694 the French Protestants, in 1729 Protestants in Copenhagen who had a disastrous fire and 1/- was collected, and in 1704 the Protestants persecuted and flying from the Principality of Orange were the recipients of aid from Stoke Edith.

Aid was also given to colleges in America (1764, 1/1), Saarbruck church and school in Germany (1762, 1/-), Reformed Episcopal Churches in Great Poland and Polish Prussia (1716), to places scattered widely through the British Isles, including Ledbury church (1738) (the sum of 6d. only being raised here), and Knighton, 'Laintwardine', and Radnor (1724, 3/6 raised).

Gradually the system began to work itself out; people got tired of it owing to the abuses that crept in, and the last entry appears in 1785 when only 1/- was raised for three briefs; several years previously nothing had been given.

GLOSSARY OF A FEW UNUSUAL WORDS

bauldrickes, baldrick, the leather gear for suspending the clapper of a bell, bell brasses, bell bearings.

byll, a bill. chaff nett, a crow, rook, or chough net. In 1532, an Act of Parliament ordered every parish to have one for the distruction of these birds. chesaple. chasuble.

copys, copes.

corpores, corporal, either an ancient eucharistic vestment; or a linen cloth upon which the consecrated elements are placed during celebrations. dornex, dornick, a fabric originally made at Doornick, Flanders, used for vestments.

evydens, evidence, documents, generalles, the Archdeacon's visitations. The diocese of Norwich is said

by Wright in English Dialect Dictionary to be the only one in which this popular name is used. gudgyngs, gudgeons, a pivot let into the end of a beam, etc., upon which a

bell, etc., swings. mastyme, mass time.

measse or messe, messuage, a dwelling house.

a nynare, an hymnary.

obytt, memorial service for a departed benefactor. peyntyd cloth, painted cloth, used for wall hangings.

processionalles, processional, an office book containing litanies, hymns, etc., for use in processions.

quarell, quarry.

tabre, taper.

tenacles, tunicle, a vestment resembling a dalmatic worn by sub-deacons. vustyan, fustian.

vysetyns, visitations.

waxe money, money spent in the purchase of beeswax for making candles for sale as votive offerings.

THE ARCHITECTURE OF BYFORD CHURCH

By the REV. B. B. CLARKE, M.A., M.Sc., Rector.

(Read 21st July, 1949.)

The name Byford, according to Ekwall, means the market at the ford¹. The village is situated where what is still called "Old Hereford Road" crosses the river Wye in a long diagonal ford, from a point on the Preston side opposite the old Boat Inn, now the blacksmith's, to a point on the Byford side near the Lower House. This may explain the ancient but strange anomaly that Byford parish has a few fields on the Preston side of the river just in the vicinity of the ford. Almost invariably the Wye is a parish boundary.

Byford church is on the higher ground above the river and has been a centre of Christian worship for nearly eight and a half centuries. It was not long after William the Norman gave the manor of Byford, with others, to Roger de Laci who installed his son Walter as his tenant,2 that the building of the church began. The precise date is not known, but some time in the twelfth century a small, almost square, rather dark, Norman church was built here. The north wall and part of the east wall still survive and the site of the old church is the centre of the present one. If we look at the east part of the north wall of the nave, and imagine the large windows blocked out, for they are modern, and see only the single narrow round-headed window, we see the north wall of the Norman church as it was. The west wall stood where the font is now and the south wall on the site of the arcade. These two were probably similar to the north wall, having each a single round headed light. Whether the Norman church had a chancel or apse is not known, but the two corbels halfway up the present chancel arch are in what is believed to be part of the 12th century wall and these may have carried the old chancel arch.3

From the year 1200 and for the next hundred and fifty years almost every generation sought to add to, and beautify the village church. In 1200 the first step was taken to enlarge the old Norman church by pulling down the south wall and erecting the arcade of three bays and building beyond a south aisle. The stone used for the arcade is a very hard grit from the Old Red Sandstone. It occurs locally but is rare and difficult to obtain. This extremely hard grit is only used for the arcade, elsewhere the softer, more common Old Red Sandstone is used. The round piers have

beautifully scalloped capitals and octagonal abaci. It will be seen the carvings are slightly different on the two capitals and on the corbel which carries the last arch into the east wall. No doubt there was a similar corbel carrying the western arch into the west wall. The arches are slightly pointed, a stage between the round single centred arch of the Norman style and the pointed two centred arch of the Gothic. A Transitional arcade like this is quite rare.

It was the next generation, i.e., about 1225, that decided on the bold plan to increase the nave and the south aisle to twice their then existing length. The west wall was pulled down and rebuilt 25 feet further west with two large lancet windows built in it to lighten the still very dark church. The north wall was extended westwards and a new window of the lancet type built into it. The nave arcade was also extended to add two more bays and two more piers. The same hard stone was found for the piers and arches. The capitals of the later piers are quite plain, but the abaci are ornamented with simple moulding. The new arches are much more pointed than the older ones. Behind the organ at the West end of the chancel is a lancet window and all three windows in the south aisle were probably originally of this type.

It was about a generation later, c. 1250, that a big extension eastwards was begun by building the chancel and south transept with the exquisite arcade that divides the two. Whether the work replaced an older Norman chancel or apse we do not know, but when the north side of the churchyard was being reseeded this year (1949) a large amount of stone and rubble was found outside the chancel wall. The piers of the chancel arcade are round and each carries eight shafts alternately round and filleted with capitals most beautifully carved with stiff-leaf ornament.

Fifty years later, c. 1300, it was decided to lengthen the chancel and the stone work of the present east window dates from that time. Although this work was done six hundred and fifty years ago the join in the chancel wall can still be seen from outside on both the north and south sides. The roof of the south transept is said to be contemporary and of the collar beam type.³

Apart from the tower, the church was completed in its present form by the restoration of the south aisle in 1350. This included putting in much longer and lighter windows than the old lancet type and re-roofing with the pent-roof, which it still has, and adding a south porch.

After 1350 little was done till 1717 when the tower was built blocking out the 13th century west windows.

It is perhaps unusual to add a description of the floor of the church, but in this case the floor of the nave is most beautifully constructed. It was lifted recently to install electricity and it was

possible to see the whole construction. Underneath are rows of small stone piers very similar to those which carry the arcade only shorter. They are perfectly made and have proper bases. On these the stone flags of the floor rest.

Among the smaller fittings of the church may be mentioned the octagonal font dated 1638, and the holy water stoup by the south door now partially blocked up, but the mouth of which, when it catches the light, is still seen to be smooth where it was worn by the fingers of many generations of the faithful. Behind the priest's stall is a carved panel bearing three coats of arms and the date 1635. The coats are those of the Dean and Chapter of Hereford, the Gomond family, and one unknown.*

Among the mural tablets is one in the sanctuary dated 1702 to Aubrey Smith, which reminds everyone who sees it of the work of Eric Gill. In the transept are two coloured mural tablets to members of the Davis family dated 1708 and 1750 which should be compared with those in Breconshire, recently described by Mr. Harthan and Miss Wight.⁴ There is a little 14th and 15th century glass in the south aisle and transept.

The church registers go back to 1660, the earliest one being lost unfortunately though the flyleaf is preserved and bound up with the 1660 register. It reads: "The Register Book of the Parish of Byford, S. John the Baptist, of all the Weddings, Christening and Burials from the year of the Lord 1538 to this present year of our Restoration 1660".

We also have a book of parish accounts from 1732 to 1784. This contains the record of the planting of the great yew opposite the south porch on 2nd February, 1744, by George Davies.† On 24th August, 1756, "it was ordered and agreed by a meeting of the majority of the parishioners that Rails shall be placed round the Communion Table and be done in a handsome and workmanlike manner at the expense of the parishioners and that Thomas Powell of Much Mansell be employed to make and put up the same".

There are four mysteries attached to this old church, one of which was solved accidentally by Mr. Morgan and I, the other three I hand on to the members of the Club.

The origin of the carved panel behind the priest's stall we now know. We were checking the coats of arms, as that of the Dean and Chapter is somewhat unusual. Strong's *Heraldry*

of Herefordshire, published in 1848, states that the Gomond coat of arms are over the door of Byford Court and carved on the pulpit of Byford church. Thus this panel is evidently one panel of the old pulpit. The present one was erected in 1851.

The other three mysteries are these: 1. In the South Transept is a stone which has the appearance of a squint but points in the wrong direction and the end is now blocked. The Historical Monuments Commission Report describes this stone carefully but makes no attempt to suggest its purpose. 2. Lying on the sill in the porch is a carved capital which is flat on the top and underneath has a hole which evidently carried a small column. The capital is carved in stiff leaf. I hazard a very tentative suggestion that this may have been part of the old font. 3. The Valor Ecclesiasticus, made in 1535, is a complete list of all ecclesiastical property at the time and was made no doubt by Henry VIII as a record for the possible sources to replenish that monarch's ever empty purse. This gives the patronage of Byford at that time as the property of the Prior and Convent of Clifford and no one seems to know where this house was or to what order it belonged. 5

REFERENCES:

^{*} This coat has three chapes. The only record of a similar coat in Papworth is "sable, three sword chapes, or" for Adderton of York. It does not seem possible that this family had any connection with Byford.

[†] This yew measured 16 ft. 9 in, in circumference at 5 ft, from the ground in December, 1949.

¹ Oxford Dictionary of English Place Names, Ekwall, p. 76.

² Domesday Survey, V.C.H. Herefordshire, Vol. I, p. 333.

³ "An Inventory of the Historical Monuments of Herefordshire", R.C.Hist.M. Vol. III, pp. 30-31.

^{4 &}quot;A Vernacular Art of the Welsh Border", J. P. Harthan and M. Wight. Archit. Rev., October 1947, pp. 135-136.

⁵ Mr. George Marshall tells me that the priory was on the site of the Priory Farm at Clifford-on-Wye. It was a cell of Lewes, a Cluniac priory.

ADDITIONAL NOTE: After the Club had examined the various parts of the Church, Mr. J. H. Powell suggested that if there were originally two altars in the South Transept instead of one the squint would point directly at the southernmost of these.

A NOTE ON THE GEOLOGY OF THE DEEPWELL TUFA AT MOCCAS AND BROBURY SCAR

By the REV. B. B. CLARKE, M.A., M.Sc.

At a point on the right bank of the Wye near Cross End farm, and twenty feet or so above the river, a natural spring was examined around the mouth of which is an extensive deposit of calcareous tufa. This is a spongy limestone which when freshly deposited is quite soft but hardens with age into a rock which is still spongy and not particularly hard but very durable. It has been largely used in building Moccas church, and in areas where tufa is available has been quite often used in other buildings. It is a great mystery how the old builders realised that so soft a rock would stand the ravages of the weather of centuries so well.

The formation of calcareous tufa depends on the fact that limestone is almost insoluble in pure water but is freely attacked by water containing carbon dioxide when the following chemical reaction takes place:—

 $CaCO_3 + H_2O + CO_2 = H_2Ca(CO_3)_2$

The bicarbonate so formed is soluble in water, and in addition this reaction is accelerated under pressure. In the Old Red Sandstone is a good deal of calcareous material. The marls are calcareous and often contain nodules of limestone, and there are at least two, and possibly four, bands of solid limestone as well as a number of cornstone bands. Thus where there is underground water charged with carbon dioxide there is plenty of calcareous matter for it to attack and if the water is deep down it will do so under pressure. When the spring emerges at the surface the pressure is released, the carbon dioxide escapes, and the carbonate is reformed, which being insoluble is thrown out. Anything which falls into the water like sticks or leaves becomes rapidly coated with limestone and the tufa will often show beautiful leaf impressions. Incidentally there is one on the chancel wall in Moccas church.

From the Deepwell¹ it was possible to see Brobury Scar. This is one of the biggest as well as one of the most beautiful natural exposures of the Old Red Sandstone in the county of Hereford. There are some hundred feet of solid rock exposed and this consists of purple shales at the river level with two persistent green bands followed by a massive sandstone. There is then a great thickness of marl with a thinner sandstone band near the top. The shales show sun cracking and also worm casts.

REFLECTIONS ON THE ROADS AND BRIDGES IN HEREFORDSHIRE

By G. H. Jack, M.Inst.C.E., F.S.A.

(Read 13th October, 1949.)

My association with the roads and bridges of Herefordshire commenced in June, 1907, and continued until March, 1933.

I have a vivid recollection of the delight experienced on making my first tour of the main roads, the loveliness of the countryside, the wooded hills, the clear fast flowing rivers and streams, and the wild flowers were like a glimpse of paradise after my 10 years' experience of the greyness of industrial Birmingham. The borough I served (Aston Manor) had a population of 80,000 on 932 acres: Herefordshire's population was 114,000 on 500,000 acres!

The county roads seemed to me to be almost deserted. There were no 'buses or heavy motor vehicles in those days. Self-propelled vehicles appeared in Herefordshire about 1898, and by the time I arrived (1907) there were 450 registered in the county. In 1948 the number had risen to 18,288.

There were no waterproofed roads, all were waterbound and narrow, the width was between twelve and sixteen feet. The actual work of road maintenance was entrusted to the Rural District Councils. The County Council simply paid the cost on the certificate of the County Surveyor, who made an annual inspection of the 500 miles of road for that purpose. In those days the total cost, including "improvements", was about £25,000, which works out at £50 a mile.

As the number of cars increased (very slowly at first) the effect was not only seen but felt. The dust nuisance had emerged! An approaching car could be seen a mile off. In the limestone areas the trees and hedges were whitened to their tops. Motorists wore goggles and the ladies were swathed in heavy blue veils.

The mud in winter was equally in evidence. The majority of the complaints received were in the form of sharp criticism of the lack of mud scrapers. Hundreds of tons of mud were removed from the surfaces and dumped in heaps on the grass verges, only to be returned to the road later on, mixed with some clean broken stone. The metalling was mainly confined to the centre of the road, the sides were not coated and consequently became grass grown in the spring. The removal of this grass, in order that the roads might

¹ Or Depple as spelled in the ordnance map.

appear at their best during the annual inspection, occupied the greater part of the time of the roadmen.

"Pot holes" were normal and numerous; as their size and depth increased they were tardily filled with chippings and mud, much to the disgust of the few disgruntled motorists.

The metalled crust of the roads was so thin (about 3 inches) that the passage of a traction engine with its large straked wheels broke through and forced the red clay subsoil to the surface. Miles of road would be thus affected in one day.

The few cars cut into the unmetalled road sides and scattered the chippings out of the pot holes, thus upsetting the surface drainage, so that the water soaked into the subsoil and made it unstable. At the same time the scattered chippings cut the costly tyres of the motors.

For a time the country folk harboured the hope that the noisy and dust-creating motors would not increase. They considered the innovation not only a nuisance but a positive danger. The speed was described as terrifying.

The car I possessed at that time would reach 20 miles an hour on the flat in top gear. On one or two occasions when the road was clear I reached this figure, but the whole apparatus seized up; the water in the radiator became live steam. The result of my reckless driving was that I had to wait an hour before I could crawl.

In an effort to arrest the menace of high speeds one of the Knights of the Shire moved a resolution at a County Council meeting, that a petition be made to Parliament to make it an offence for cars to be driven at a speed greater than 12 miles per hour.

Slowly but surely the cars, the speed, and the dust increased, and when everyone appeared to be in despair the news spread that the County Surveyor of Kent had solved the dust problem, by sweeping crude tar on the road surfaces. I decided to follow suit in Hereford.

After a time doubts were expressed as to which was the greater nuisance, the dust or the tar! A prominent County Alderman described the experiment as the act of a madman. Red in the face he exclaimed:—

"No man outside Bedlam would dream of putting black sticky stuff on the roads."

The farmers were loud in their condemnation, and the housewives moaned the ruin of their carpets, but the tarring went on, and in time it was tolerated and eventually accepted, until at long last it was generally agreed that no man outside Bedlam would dream of not putting black sticky stuff on the roads.

After many miles of roads had been tarred and made dustless and slippery, a new and greater problem appeared; the roads were neither strong enough nor wide enough. The cost of the tarring was a heavy burden. The cost of reconstruction was unthinkable. The outlook for the Council was on a par with that of Israel in Egypt: when they were required to make bricks without straw.

As usual, when the limit is reached and the demand insistent and reasonable, the remedy appears. A new road authority was created—The Road Board—with power to make free monetary grants for the widening, strengthening, and reconstruction of roads and bridges. Herefordshire was not slow in taking full advantage of the benefits, with results visible to this day and fully justified by the way the roads stood up to the war traffic.

Good progress was in full swing when the war with Germany was declared in August, 1914. Work on the roads was subsequently much reduced, and came almost to a standstill until the end of hostilities in 1918.

About this time the County Council decided on a drastic change in administration. The contracts with the District Councils ceased and the County Council took full control of the matter of road maintenance, thus coming into line with the majority of the English counties. Expensive plant was purchased and a large staff engaged. On the whole the many difficulties were overcome in an amicable spirit. Some of the Rural Councils objected, which was not unreasonable: the loss of strictly local control has its disadvantages. The County was divided into five areas, each with its Divisional Surveyor.

In course of time the Road Board was superseded by the Roads Department of the Ministry of Transport.

The control of roads and bridges by the County Councils was considered by the new Ministry somewhat in the same light as the County Councils viewed control by the District Councils. Today the Ministry has deprived the counties of the responsibility for the maintenance of the principal roads. They are now agents for the Ministry and take their instructions from London.

One of the first acts of the Ministry was the classification of the roads of the country, in order of their importance: 1st, 2nd and 3rd class. The first two classes were to receive percentage grants, so that the burden on local rates was considerably reduced and the improvement of the roads definitely encouraged. Now the Ministry shoulders all the cost of the important highways of the country.

The classification of the English roads by the Ministry of Transport was considered a novel and brilliant idea. As a matter of fact it was merely a revival of very ancient practice. The first good roads in England were classified by the Romans as early as

100 A.D., the only difference being that the Romans devised four classes against our three.

- 1. Military Roads-our 1st Class.
- 2. Cross Roads-our 2nd Class.
- 3. Agricultural Roads—our 3rd Class.
- 4. Private Roads-not Classified.

Likewise the cost of the roads was shouldered by the Roman national exchequer: a course which we agree (in this 20th century) is the best.

The old-fashioned sinuous, yet pleasant macadamised roads of Herefordshire were maintained at low cost—very low! So long as the horse and the pedal cycle were the swiftest modes of transit all requirements were met. The motor car and motor cycle changed all that. Walking in the country nowadays is far from carefree.

We are now on the eve of the final stage—"Motorways", on which vehicles weighing tons may travel at one hundred miles an hour. On these speedways walking will become an offence.

BRIDGES

A bridge is part of a road: it follows, therefore, if a road must be widened and strengthened, so must the bridge. This fact accounts for the disappearance of many historic and good-looking narrow bridges all over the country, and their replacement by concrete or steel or both.

Had the road transformation not been so urgent, many of the old bridges might have been widened and strengthened at moderate cost and, incidentally, the landscape would not have been marred. In common with the majority of surveyors, I did some demolishing and was surprised to find how solidly built some of the old bridges proved to be. The new work may be stronger, but it is clearly not so good looking.

The great flood of 1795, which destroyed the bridge at Aymestrey, and many others in the west country, ushered in a new mode of bridge design, very plain but in good proportion. For strength and appearance the mode has not been improved upon. During the late 19th and early part of the 20th centuries both the earlier and these later bridges were marred by what I may call unintelligent repair work. Concrete substituted for perished stone and coursed masonry in place of uncoursed. The work looked what it was—cheap.

In order to improve on this state of things the Council was advised to execute their bridge repairs by men directly employed instead of by contract. A trial of the new suggestion was agreed to and about a dozen men were engaged upon the repair work.

They were instructed unobtrusively on the good points of the ancient work they were to repair and the merits of the design and construction, and at the same time given the best possible terms of employment. In a very short time it was evident that the new approach was appreciated; it resulted in the men taking a keen and intelligent interest in what they were doing, so much so that the superiority of their output was noticed by visitors to the county who happened to be associated with the Society for the Protection of Ancient Buildings, which body expressed its appreciation in writing. This was passed on to the men, to their obvious satisfaction.

After about six years the competence and interest of the men had so increased as to warrant the suggestion that they should create a "Guild of Bridgemen" (Fratres Pontifices) as the 12th century bridge builders called themselves. The suggestion was enthusiastically adopted and the Guild inaugurated on the 10th September, 1932, at the Booth Hall in the city of Hereford.

The men took great pride in their membership and obeyed the rules to the letter. Their attitude to work changed, there was quite as much pleasure as labour in evidence. I have known them work overtime and not claim payment!

What follows is a brief account of some of their successful undertakings.

1. Aymestrey Bridge, River Lugg.

In the year 1931 the Council ordered the demolition of the narrow bridge at Aymestry¹ and the construction of a new and wider bridge in its place. This task the Hereford men accomplished without any outside help. They quarried the stone and worked it, constructed the coffer dams (not an easy task in a swift river), framed the centring, and completed the superstructure, including a new road. The traffic was diverted over a temporary bridge which they also erected. The Council had doubts as to the wisdom of entrusting the work to these men, fearing that the cost would be excessive and the progress slow. It was therefore decided in the first place to invite competitive tenders. When these were examined it was found that they were all higher than my estimate. The direct labour method was therefore adopted and the work completed satisfactorily both as regards cost and time.

The old bridge was erected in 1795 by John Gethen of Kingsland.² It was in good condition, but narrow and out of alignment with the road on either side. Gethen's design fitted in with the surrounding country perfectly. It was therefore decided to

See Transactions of the Woolhope Club, Vol. 1943, pp. 119-124.
 See ibid., Vol. 1930, pp. 86-97.

perpetuate it; a fact which is recorded on a tablet fixed on the upstream face of the new bridge.

- 2. Wilton Bridge, River Wye, 1927. General repairs.
- 3. Lugg Mill Bridge, River Lugg, 1926. Partial reconstruction.
- 4. Hunton Bridge, River Arrow, 1932. General repairs.
- 5. Leintwardine Bridge, River Teme, 1930. Reconstruction and widening.
- 6. Burrington Bridge, River Teme, 1931. General repairs.
- 7. Lugg Green Bridge, River Lugg, 1932. Underpinning and repairs.
- 8. Arrow Green Bridge, River Arrow, 1932. General repairs.

And many others.

Prior to the launching of the direct labour system, some very creditable work was executed by Hereford contractors on a commission basis. Wilton Bridge at Ross was strengthened by ferro concrete ties by Mr. William Bowers in 1913, and similar work was done on the fine brick bridge at Bredwardine by Messrs. Beavan and Hodges in 1921. Wilton came into existence in 1597 and Bredwardine in 1769.

Much more could be said on the subject of Herefordshire roads and bridges, and the change over from horses to motors, but I must stop! Paper is in short supply and printers' charges high.

OPEN-FIELD AGRICULTURE IN HEREFORDSHIRE IN THE LATER MIDDLE AGES

By A. J. RODERICK, M.A., Ph.D.

(Read 25th October, 1949.)

The main crops grown in medieval Herefordshire were wheat and rye, sown in autumn, and oats, peas, beans and vetches, sown in spring. Wheat was mostly grown on the more fertile land; oats were the principal crop on the poorer soils. For example, wheat was the chief crop at Tillington in 1322, 52 acres of the lord's demesne being sown with wheat, and 20 acres with oats; at Much Marcle, in the same year, 100 acres were sown with wheat, 20 acres with peas and none with oats; at Huntington, where the land was reckoned to be poor, only 12 acres of wheat were sown, and 64 of oats; on the manors of Leominster priory in the fourteenth century wheat was the main crop, twice as much wheat being grown as oats. Peas, beans, and vetches were grown in relatively small quantities.

The basis of the agricultural economy in Herefordshire, as in most other parts of England during the Middle Ages, was the open-field system, whereby the villagers' lands were not held in severalty but were divided into small portions scattered among the open fields of the village.

Evidences of a two-field system in the county in the thirteenth and later centuries are very slight. There is a curious distribution of 51 acres of arable land in Holme Lacy, as revealed in a thirteenth-century charter: "x et ix acras que iacent inter Witehull et regale iter quod est versus Hereford de Irchenefeld loco qui dicitur Worwardemor, et vij acras que iacent inter Westerelawe et ipsum iter regale predictum; et x et ix acras que iacent iuxta viam que est versus boscum de villa de Hamme, scilicet inter ipsam viam et Hudecroftam et inter Coptimoram et Stanfordesmora, et vj acras que iacent iuxta ipsam viam predictam" Although the whole holding is said to lie in one field, Westfield, it is clearly made up of two parts, one of 26 acres (10+9+7) and the other of 25 acres (10+9+6). In the manor of Hope, which belonged to Leominster priory, the demesne lay in two fields. In Clopley, four acres are

¹ Min. Acc. 1145/6.

² Ibid.

³ Ibid., 861/1.

⁴ B.M. Add. Chart. 8055.

described in a thirteenth-century charter as lying "in ambobus campis de Cloppoleye", the unmistakable implication being that there were no more than two fields.

Unfortunately there is no more conclusive or widespread evidence of the two-field system in the county during this period. Evidence of a two-course rotation is equally scanty: in Much Cowarne in 1322 42 acres of John le Botiller's 80-acre demesne were under cultivation, 36 acres under wheat and 6 under oats.² Roger Mortimer at Fromanton cultivated exactly half of his 60-acre demesne. Finally, on the Bohun manor of Stretton in 1410, 12 acres of arable land were said to lie in common in alternate years.

The evidence of a pure three-field system is greater, but much of it is inconclusive. The evidence of charters cannot be relied upon, unless there is a definite statement or implication that the open fields of any particular village numbered three and three only. The cathedral archives furnish a good example of this; they contain a large number of charters relating to Lyde.3 Nearly 20 of them describe pieces of land each of which was equally distributed in three fields, Eastfield, Middlefield, and Westfield; but in other charters there is reference to several other open fields-Millfield. Northfield, Clayhill Field, Wide Dene Field, In view of this, one hesitates to trust the evidence of any single charter or small number of charters which show an equal distribution of acres among three fields. A fifteenth-century charter of Evton describes 12 acres of land "prout iacent in campis de Eyton", a phrase that might lead one to believe that the three fields enumerated in the charter were the only fields in the village; but in the absence of other charters this evidence cannot stand, especially when the names of the fields are noted-Tastynhull, Howndeswallfeld and Mullarfeld. These have not the simple antiquity of names such as Westfield and Middlefield, Netherfield and Overfield. A Withington document of 1452 does not lay itself open to the same suspicion, because no field names are mentioned "sunt ibidem xlviii acre terre vocate smalelond et iacent in iij campis",4 this again suggests but does not prove an equal division of the tenements of Withington in accordance with the requirements of a three-field organisation.

There are several instances of demesne land apportioned out equally among three fields. The arable demesne of Aconbury priory in the early sixteenth century was 120 acres; 40 acres lay in each of three fields, Himbley, Quaresfield, and Millfield, but fourteenth-century manorial documents show that there were

other fields.¹ Extents of the manor of Leominster priory made in 1327 show that the demesne was in most cases distributed among three fields; this was the case, for instance, at Ivington, where 144 acres of demesne lay in Westfield, 132 in the field 'opposite the park', and 146 in Merellfield. But charters mention other fields in Ivington.

The strongest evidence of a three-field system relates to Bunshill, an Aconbury manor in the upper Wye valley, and is found in the accounts of the manorial bailiffs between the years 1326 and 1344.² The following table has been compiled from these accounts.

TABLE I

Year Rotation		Winter sowing (wheat)	Spring sowing (oats and peas		
1326	1	Benhull Field			
1327	2	Middle Field			
1328	3	Red Field			
1329	1	No wheat sown	Red Field		
1330	2	No account			
1331	3	No account			
1332	1	Benhull Field			
1333	2 3	Middle Field			
1334	3	Red Field	Middle Field		
1335	1	Benhull Field			
1336	2	Middle Field			
1337-	3, 1, 2,	No accounts			
1343	3, 1, 2,				
1344	3	Red Field	Middle Field		

Only three field names are mentioned, Benhull Field, Middle Field and Redfield, and the order of the three-course rotation of crops is strictly observed. The demesne on this manor was very small—it could not have exceeded 50 acres—and this makes such consistency all the more remarkable. In seven of the accounts only the name of the field in which the wheat was sown is given, but the accounts for 1329, 1334 and 1344 name the field in which spring crops were sown, and the rotation is seen to be wheat, oats and peas, fallow,

There are numerous instances in the Herefordshire records of a three-course rotation, and in a district where the three-field system is known to have been in use a three-course rotation can be assumed to furnish additional proof of its practice. The case of Bunshill is an excellent example; roughly equal areas of winter and spring crops were sown, and a third was left fallow. The phrase "tercia pars facet quolibet anno ad warectam et in communi" is a familiar one in inquisitions, and it was clearly the general

¹ Hereford Cathedral archives.

² Min. Acc. 1145/6.

³ The Hon. Secretary, Mr. F. C. Morgan, informs me that he has recently discovered another collection of sixty Lyde charters in the Cathedral archives.

⁴ Hereford Cathedral archives. ⁵ Misc, Books (Augmentation Office), Vol. 399, fo. 155.

¹ Min. Acc. 1107/5 and Court Rolls, 176/24.

² Min. Acc. 860/10, 11.

custom in most parts of the county to cultivate two-thirds of the arable land each year, leaving the remaining third fallow.

Far more common than the pure two-field or three-field villages were those whose fields were more numerous. Much Marcle charters¹ mention nearly thirty fields, and there may well have been more. Brinsop charters contain between them the names of 15 different fields,² and in a single inquisition relating to Fromanton there are 14.³ At Breinton there were at least six fields,⁴ and for many other villages there is similar evidence.

The fact that the arable lands of the villagers lay in as many as 20 or 30 fields does not preclude the possibility of a two-field or three-field system in operation upon them. The fields might be divided into two or three roughly equal groups. Dr. Gray, in English Field Systems, produces evidence of such an arrangement in Herefordshire in the early seventeenth century, and one of the tables he has compiled from manorial surveys of 1609 can be examined with advantage.

TABLE II
THE MANOR OF STOCKTON

Customary Tenants		Rowley's Field	Freid Church Field	Meare Field	Moore Field	Bache Field	Rede Field	Grawntons	Kymelton's Field	Polliatts Crost	
R. Carpenter			4	4						4	
R. Wanckleton	***		15		10	3	1	13	1		
W. Colman	449	***	8	1	1	6	8	12	2	6	
J. Hale	***		16		8	8		14			
W. Powle	4+0.	***	20		12	-?	2	13			2
W. Bilwyn	***	4 14	3			3		3			
H. Bilwyn	1111	***	16		3	16		16			-
W. Yeomans	***	***	18			2	16	18			
W. Bach	411		20			20		20			
J. Musgrove	4440	***	10		5		10	10	1		

This table shows that the tenants' lands were evenly divided among three groups of fields. Rowley's Field itself constituted

4 Hereford Cathedral archives.

one group, Church, Meare and Moore Fields the second (except in the case of William Yeomans and John Musgrove), and the remaining five the third group. But other tables relating to Herefordshire manors included by Dr. Gray in his appendices show equally clearly a complete absence of any field grouping.

Unfortunately none of the medieval surveys enters into sufficient detail to show whether these seventeenth-century conditions prevailed three centuries earlier. Charters and inquisitions, however, give clear indications of field grouping. At Stockton, in the early fourteenth century, Conemers Field and Alvedon were grouped together, so were Redwey Field and Stalling.¹ At Ivington, it is evident that the West Field included several other fields—"iij acras terre arabilis in Ivingtun iacentes in le Westfeld in campo qui vocatur Waltonfeld",² and "ij acras terre in Ivingtun in le Westfeld apud le stockyng".³ At Dorstone, in 1428, Pyryfield and Dorefurlong were grouped together. At Wigmore, Newton Field was made up of four other fields.⁴

There is a considerable amount of evidence of this kind. On the other hand, there is plenty of evidence in the charters to indicate an absence of field-grouping arrangements in many villages. The Much Marcle charters reveal practically no trace of a three-field grouping; but in observing the distribution of acres as shown in charters we must allow for the fact that usually a charter relates not to a whole holding but to part of one. The following extract from a charter of Leinthall Earls is, however, worthy of special mention. It records the sale by Richard of Burley to William Mortimer of a messuage (mesuagium cum orto) in Leinthall Earls, 43 acres of arable, and a meadow. The 43 acres were made up as follows:—

2 in Wydenhope

1 iuxta iter de Adingwerke

1 apud fordam de Esthope

1 inter la munede et fordam de Esthope

2 in parva stepelhulla

9 in Ferneleye

2 apud pomessudynge cum moris circa iacentibus

⁵ Ibid., fo. 46.

¹ Most of them are in the Hereford City Library. ² Harl, MS., 3586.

³ Inq. post mortem, Edw. II (Chancery), File 13/18(7).

¹ A comparison with the seventeenth century survey does not prove helpful, as possibly only two of these four names appear in the list of nine names mentioned in 1609; Conemers Field may have become Meare Field, and Redwey may have become Rade Field.

² Cotton MSS, Dom. A. iii, fo. 211. ³ Ibid., fo. 228: "... campo qui vocatur le Stockyng ..." (Ibid., 231)

⁴ Harl. MSS., 1240, ff. 45-6.

- 1 apud foxhulle
- 3 super granelithe
- 1 in childehulle
- 2 sub suthlithe
- 3 in magna cultura super villam versus orientem
- 5 in cultura de auledingle
- $2\frac{1}{2}$ in media cultura sub nemore de suthlithe
- 2½ super Bromdon
- · 5 in Chirnemora

This seems to be a whole holding; the distribution of acres should therefore be fairly normal. It is noteworthy that 'campus', the Latin term used to denote an open field, is not used in this charter; it may be that 'cultura' must be regarded in this instance as synonymous with 'campus'. In any case the wording of this charter and the distribution of the acres do indicate either the absence of an open-field system or the existence of one which has been very much broken up.

There are numerous instances, too, of irregularities of rotation which may have reflected irregularities in the field system. At Gattertop in 1322, out of 120 acres in demesne only 26 were sown at the winter sowing; at Hentland only 20 out of 100, at Kimbolton 24 out of 120, at Marden 20 out of 320. There was another type of irregularity which was very common. At Bunshill, as we have seen, each crop was sown in one field only, but at Hay in 1372 the oats were sown in three fields, Forestfield, Churchfield, and the Homme; at Dorstone in the early fifteenth century certain villagers sowed their wheat in three fields in one year.

Perhaps the best picture of the irregularities which were prevalent in the later medieval period is contained in a survey of the manors of the bishopric of Hereford made in 1516.⁴ The following table shows how the arable land of the tenants of the manor of Hampton Bishop lay in the open fields. It shows a village with three original open fields, to which have been added fields of more recent origin and of much smaller size, some of which at least have been fitted into the existing three-field system. Some of the other manorial surveys contained in the Longleat manuscript show the existence of similar arrangements elsewhere, while some show an open field system already completely broken down.

TABLE III
HAMPTON BISHOP

Tenants		Colcam	Clay Field	Dale Field	Nashe Field	Bury Field	Wommers Field	Other Fields
Jacob		10	10	10				
Ric. Tiler	***	10	10	10				
	711	10	10	10				
J. Ketermyster	***	10	10	10				
M					5	5	5	
Nich. Bond		4	41/2	6				
# ***		5	5	5			The same	
Ric. Alen	1	18	18	18				41+11
Thos. Love	444	5	5	5				1
m	111	10	10	10				2
Edw. Love		10	10	10				
м	***				2	2	1	1
John Love	1	5	5	5	1			
Thos. Jordyn		10	10	10				
w		5	5	5				

What were the factors that contributed to the growth of a large number of open fields in the villages of Herefordshire, and to the break-up of the open-field system of agriculture during the later medieval period? One factor was probably the presence of woodland. Even to-day Herefordshire is a superbly wooded county, and it is known that in prehistoric times and during the early Middle Ages the county was an area of open woodland and forest. The evidence of archæology bears this out. Sir Cyril Fox, in The Personality of Britain, writes as follows:—"The greater dyke systems which seem to be peculiar to the Dark Ages in Britain emphasise the impenetrability of woodlands clothing the heavier soils.... Offa's Dyke, the western frontier of Mercia in the eighth century, forms a continuous barrier both in forest and open country on the comparatively light soil of the highlands: but when in Herefordshire a belt of rich lowland country is crossed, it becomes

¹ Min. Acc. 1145/6.

² Ibid., 1156/18.

³ Rentals and Surveys, Portfolio 8/10.

⁴ This manuscript is in the possession of the Marquess of Bath, to whom the writer is indebted for permission to study it.

intermittent, being constructed only in the Saxon clearings. I is a fair inference that the intervening forest here was considered an impassable obstacle."

The presence of extensive woodland meant that settlers were faced with the task of clearing the ground before it could be brought into cultivation. The Saxons lived by the plough. It is not surprising, therefore, to find evidence of assarting, or clearing land for cultivation, throughout the medieval period. The most striking piece of evidence is that contained in the Domesday Survey and commented on by several writers; the word 'assart' is only mentioned four times in the Survey, and all four references are found in the Herefordshire section. Under the heading Much Marcle is the following statement: "In codem manerio sunt lviij acre terre projecte ('essarz' is here interlined) de silva et prepositus et alii ij homines tenent plures acras de ipsa terra". Under Leominster, "de exsartis silve exeunt xvij solidi et iiij denarii". Under Weobley, "terra ad i carucam de Essarz, reddens xj solidos ix denarios". Under Fernhill, "terra ad j carucam de Essarz reddens liiij denarios ".1 This circumstance can hardly be taken as proof that assarting was unknown or rare in Saxon England; it is just another example of the way in which the Domesday Survey often conceals more information than it gives. Nevertheless. it does show that woodland clearing was being carried on, probably extensively, in Herefordshire.

There were two main types of assart; assarting which meant the extension of the open fields to include waste or woodland on their outskirts, and the assarts which were made at some distance from the open fields and which lay apart and distinct from them. Little is known of the first type, because it is not the sort of activity likely to be mentioned in charters or indeed in any records, and it can usually be traced only by the names of fields and of pieces of land lying in the open fields. In Clehonger one of the fields was called Keneworthin. The O.E. "worth" means an enclosed homestead, a habitation with surrounding land, and Keneworthin was probably a piece of cleared land which had later been made part of the open fields. A Birley charter mentions a Bridworthin in its open fields; 2 at Stockton there was a field named Wortheyn, and there was an Alderworthynsmore in Much Marcle fields.3 Another name which suggests encroachment upon the waste is stokkyng—a very common term in medieval Herefordshire. Nicholas Muntrok sold 10 acres of land to the prior of Wormesley, "quarum v. vocantur le Stockyng et iacent inter terram prioris et terram de Mansell".4 The position of these five acres lying

together on the outskirts of the village territory lends credence to the supposition that a stokkyng was a small parcel of improved land. In Clehonger there were several stokkyngs, one, Monestokkyng, large enough to be termed 'campus'1; at Stockton, too, there was a Stokkyng Field. The word 'croft' had similar associations. When a croft is found in the open fields it seems likely that it was a piece of improved land which had been directly or indirectly included in the open fields. There was a Croftes campus at Brinsop-' j acra iacet in campo qui vocatur Croftes inter terram ecclesie de B. ex utraque parte et extendit in longitudine super bottas dicti prioris propinquiores de Kenchester'.2 The wording of this description conveys the impression that in this particular quarter of the open fields land was being brought into cultivation. At Eastnor there were two fields called Horschroft and Widichroft respectively.3 There was another Horschroft at Much Marcle: there was too at Marcle a field called Normondi, obviously of comparatively late origin.4 The clearest instance of this kind of assarting is possibly the first of the four Domesday references quoted above. There were 54 acres of assart land at Much Marcle, much of which was held by the bailiff and two other men; the inference being that the remaining acres were not held in severalty but lay in the open fields. In a county such as Herefordshire, most of the land under open arable cultivation must have been won from wood or waste by the Saxons and Normans. Much of the early assarting must therefore have been done with the object of extending the area of the open fields, rather than in response to a desire on the part of individuals to increase their own holdings beyond the scope of the three-field organisation. Early assarting was then probably the work of the whole body of villagers or hamlet dwellers, rather than of an individual or a small group of individuals. But with the growth of villages, the increasing complication of the open-field arrangements, and the gradual improvement in agricultural technique, it is natural to suppose that there arose among certain members of the community a desire to hold land in severalty, free from the restrictions of the open fields, a desire which probably gave rise to the second type of assart, the type met with in the records of the twelfth and later centuries.

Assarting in the later medieval period was carried out by individuals on their own initiative. "The men or the man," writes Vinogradoff, "who turned portions of the common into arable fields or enclosed them as private pasture, restricted the right of other people to the use of the common, and sooner or later

Domesday Book (Record Commission), ff. 179, 180, 184.

² Harl. MSS. 3586, fo. 53b.

³ Egerton Ch. 348.

⁴ Harl. MSS. 3586, fo. 31b.

¹ Hereford Cathedral archives.

² Harl. MSS. 3586, fo. 38.

⁸ Hereford Cathedral archives.

⁴ Egerton Ch. 346.

these encroachments might reach a point where the spread of cultivation came into direct opposition with the pastoral interests of other shareholders".1 By the Statute of Merton (1236) the lord was allowed to enclose his pastures and wastes as long as he left sufficient for his free tenants. This statute shows that encroachment upon the waste was a widespread movement, a movement which it is difficult to believe was confined to manorial lords. Indeed there is a case of a tenant at Cradlev in the late thirteenth century who held an assart which in the opinion of the other villagers encroached unduly on the common land; the dispute was taken before the king's justices, who decided in favour of the villagers. and the land became common once more.2 But in Herefordshire there was a great deal of woodland assarting. Nearly half the charter references to assarting relate to assarts in woods, whereas not one specifically mentions an assart made on the waste. Assarts in woods could be made with the permission or by the grant of the manorial lord. The Black Book of Wigmore contains a charter whereby Roger Mortimer sold to Ralph Swyft the entry (introitus) to an assart which Ralph had made in Roger's wood of Edwode.3 In 1259 Robert Walerand, lord of Kilpeck, was granted permission to assart half of his wood of Coedmoor in the royal Hay of Hereford (' qui est infra metas et extra regardum Haie predicte') and to bring it under cultivation.4 Robert de Ewias in the twelfth century gave the monks of Ewyas Harold the tithes of his assarts, and a tract of land 'ad assartandum'.5 Hubert de Burgh granted away part of his assart in Aconbury.6 The prior of Leominster was able to make grants of assart land on his manors, e.g., 20 acres of assart in the village of Eyton, or of land for assarting?; the prior granted to Milo de Hope 100 acres of land 'ad assartandum de bosco nostro de Hope', and 108 acres of the same wood 'ad assartandum vel ad boscum habendum '.8

But a separate share of the woodland often formed part of the free tenement, and in such cases the tenants could assart without any necessity for a grant from the lord. The prior of Wormesley, Elizabeth de Gamages, Adam Lucas, Gilbert Talbot, Isabella relict of Geoffrey de Leuchamp, Cristina de Burghill, Roger de Burghill, all held separate areas of wood in Burghill, although none of them was lord of the manor.9 In King's Pyon

¹ Growth of the Manor, pp. 170-1. ² Camden Miscellany, Vol. XV, p. 20.

at least six different people held parcels of wood in-severalty,1 and similar holdings were common in the Leominster manors too²; in fact they were probably common throughout Herefordshire, but it is only in the Wormesley and Leominster districts that charter evidence is at all considerable. But when a tenant had no other interest in the wood apart from any rights of common which he might possess there as a villager, it is not likely that he would do his assarting in the wood: it would probably be prohibited by the rest of the village, because woodland was far more valuable acre for acre than the open waste; there was less of it, and it provided mast for pigs, and encroachments upon it would naturally affect the interests of the body of villagers far more than encroachments upon the open waste would. The force of this argument, however, depends on how much of the waste was actually woodland. In Herefordshire probably a large part of the waste was open woodland, in which case most of the assarting involved the felling of trees.

The size of assarts varied very greatly. Assart tenements on the manors of the bishopric of Hereford were very small, seldom exceeding a few acres.3 Most assarts were under 20 or so acres in extent, but much larger areas were not rare. Nicholas le Seculer (d. 1273) held in chief at Dinmore one assart containing 2 carucates.4 At Garway the amazing area of 2,000 acres was assarted by the Hospitallers.⁵ The assarted land must have been largely open waste, and was probably not all brought under the plough.

The effect of a widespread assarting activity on the open field arrangements was inevitably disruptive, but attempts were made to bring individual assarts within the scope of the field system. Roger Mortimer sold to Roger, son of Walter le Bode in Orleton a half virgate "in campis de Orleton, videlicet, xxj acras et dimidiam de assarta "⁶ Here is an assart which had not only come to form part of the open fields, but was reckoned as part of a half-virgate. The charter does not describe the situation of the 211 acres, so that it is impossible to say whether it lay in one block or in several small scattered assarts of a few acres each. This is the only recorded instance in Herefordshire of an assart actually absorbed into the open fields and the system of virgate tenements, but an early 14th century survey of Bishop's Castle in Shropshire, a manor of the bishopric of Hereford, contains a clearer instance. Roger Collyng, one of the free tenants, held 35

³ Harl. MSS. 1240, fo. 50,

⁴ Inq. ad quod damnum, H.3. (Chancery), File 2/10.

⁵ From the Ewyas Harold cartulary. See A. T. Bannister: History of Ewvas Harold, p. 49.

Add. Ch. 20407. 7 Cott. MSS. Dom. A. iii, fo. 249.

⁸ Ib., fo. 122.

⁹ See the cartulary of Wormesley Priory. (Harl. MSS. 3586.)

¹ See the cartulary of Wormesley Priory. (Harl. MSS. 3586.)

² Cott. MSS. Dom. A. iii.

³ See Camden Miscellany, Vol. 15, pp. 1-30.

⁴ Inquisitions post mortem, Edw. I (Chancery), File 3/15. ⁵ Forest Proceedings, No. 258.

⁶ Cott. Ch. xxvii, 160.

acres of assart land 'in campis de Wydecote, Stokyng et Oldefeld '.1 No details are given of the distribution of the assart holdings of other tenants of the manor. Most of the individual assarts of Herefordshire were held in severalty. An extent of Edmund Mortimer's lands in Leinthall Starkes shows that assart land was not thought of as part of the village fields. Edmund, declare the jurors, received £6 5s. 0d. in rents from his free tenants, £5 from the customary tenants, and 3s. 0d. from a certain tenant who held an assart. An assart in Wigmore is described as follows: 'latitudo cuius iacet inter viam vocatam Hauleweve et terram Rogeri Wokan et Ingram Reud, et longitudo eius extendit ab inferiori parte a terra Ingram Reud usque ad terram Agnetis Reud.'3 An assart in Aconbury lies 'inter castellum et spinam regis'.4 Henry de Baysham granted to Hereford Cathedral three acres of arable land in the fields of Collington, and two parts of his assart land which lay 'inter boscum Ade de Colintun et boscum Radulfi de Colintun'. These small assarts were obviously held in severalty and were not subject to any open field arrangements. Large assarts, such as the two carucates at Dinmore, were fields in themselves, and quite possibly became, after centuries of sub-division and alienation, one of the village open fields.

The theory advanced, then, is that the progress of assarting in an area of extensive woodland led to the piecemeal enlargement of the original open fields and also to the formation of other separate fields: the result being that, in course of time, the village arable lands would include two or three large fields—the nucleus—and a varying number of smaller fields of later origin. There is some substantiation for this theory in the charters and surveys of the period, quite apart from the evidence of assarting; to give one instance only, in the thirteenth-century charters of Lyde by far the most frequently-occurring field names are Eastfield, Middlefield, and Westfield. Many of the charters mention only these three fields, with parcels of land equally distributed between them. Several other fields are mentioned, but never in a charter relating to land which is evenly distributed in three equal fractions. The first three were the original three fields, the others being later additions to the arable land of the village which may or may not have been grouped to fit into the three-field scheme.

The confusion that must have resulted from the addition of new tracts of land to the village arable, and from the appearance of individual assarts held in severalty, was increased by an activity

¹ Red Book of Hereford, p. 197. This particular survey, dated 1304, is not printed in the Camden Miscellany, Vol. 15.

² Inquisitions post mortem, Edw. III (Chancery), File 29/5.

³ Harl. MSS. 1240, fo. 50.
⁴ Add. Ch. 20407.

⁵ Hereford Cathedral archives.

which became common during the later medieval period in most parts of the country: the purchase and exchange of strips in the open fields. Many of the wealthier tenants, with the growth of a money economy, purchased strips adjacent to their own in the open fields and built up compact holdings for themselves. Ecclesiastical landholders were conspicuous in this business, notably, in the Herefordshire records, the priory of Wormesley, the abbey of Wigmore and the priory of Aconbury. In 1411 the prioress of Aconbury was able to dispose of an entire open field-'totum illum campum vocatum Meryvalesfeld cum pertinenciis'.1 In 1516 a tenant of the manor of Upton Bishop held 100 acres of arable land in a single block in one field—" in uno campo insimul".2 These were possibly exceptional instances, but the process was one that led, slowly over a period of centuries, to the acquisition by certain tenants of large compact blocks of land in the open fields, the gradual squeezing out of the poorer tenants, a reduction in the number of landholders, an increase in the size of holdings, and the gradual break-up of the open-field system of agriculture.

² Longleat MS.

¹ Court Rolls, 176/24.

THE LOST BRASS OF THE CANTILUPE SHRINE

By the Rev. E. G. Benson, M.A.

(Read 10th November, 1949.)

In the north transept of Hereford Cathedral stand the remains of a shrine which at one time held the bones of St. Thomas de Cantilupe, bishop of Hereford. It originally abutted against the east wall of the transept but it was moved away from the wall to its present position in 1857 because this was thought (incorrectly) to have been its original position. As can be seen from the illustration, this shrine consists of an altar-tomb of the late thirteenth century, the sides of which are beautifully carved with arcades of cusped and floriated arches with pillars. Within each arch (and there are six at each side of the tomb and two at the head) is the seated "weeping" figure of a knight in the armour of the late thirteenth century with a shield on his arm and a beast at his feet.

The top of the altar-tomb consists of a coffin-shaped slab of purbeck marble (7 ft. 6 in. long, 33 in. wide at the head and 22 in. at the foot) containing the indent of a large brass. Above this altar-tomb is built a stone canopy or superstructure supported by an arcade of pillars and arches corresponding in position with the carved arcade on the tomb below. This superstructure appears to have been erected at a later date than the tomb, in order to support the feretory of the saint; but the style of sculpture seems to prove that it was only a few years later. The base of the tomb has been altered and the head widened seven inches by the insertion of two strips of stone, so that the upper storey could be erected without interfering unduly with the monumental brass on the top of the tomb. It certainly seems very unlikely that a brass would have been designed for such a position when it would have been even less conspicuous than it is to-day in the dim light of a mediæval cathedral; and the inscription would have been impossible to read, especially as the pillars of the superstructure now encroach on its indent.

These alterations are quite consistent with the interesting history of the remains of the saint.

Bishop Thomas de Cantilupe died in 1282 while in Italy. His flesh was buried in the monastery of San Severo near where he died and his heart and bones brought to England, the former



Photograph by F. C. Morgan.
SEAL OF ST. THOMAS DE CANTILUPE,

SEAL OF ST. THOMAS DE CANTILUPE, BISHOP, 1275-1283.



Photograph by F. C. Morgan.

SHRINE OF ST. THOMAS DE CANTILUPE.

¹ Fasti Herefordensis by Rev. F. T. Havergal, 1869, p. 176.



RUBBING OF INDENT OF BRASS OF St. Thomas de Cantilupe.

being interred at the monastery of Ashridge in Buckinghamshire, and the latter in a stone coffin in the Lady Chapel of his Cathedral church of Hereford. In 1287, however, his bones were translated from the Lady Chapel to a new tomb on the north side of the altar of St. John the Baptist in the north transept. The ceremony of translation, accompanied by miracles, was staged with great pomp in the presence of King Edward I and many of the nobility. Two years later bishop Richard Swinfield, the successor and a great friend of Cantilupe, appealed to the Pope for his canonization, but without avail. Eventually the canonization was effected in 1320 and at once a start was made on the erection of a larger and richer shrine in the Lady Chapel. Political troubles and then other difficulties held up the work, so that the new shrine was not completed until 1349, when a second translation took place, this time in the presence of King Edward III.

The great shrine in the Lady Chapel was destroyed at the Reformation and all trace of it obliterated; but the tomb of 1287 had been left standing and, as no longer associated with the relics of St. Thomas, it was spared from the reformer's zeal.

Thus the altar-tomb in the north transept with its brass, now lost, must surely date from soon after the Bishop's death, and the superstructure from 1287 or a few years later, when Thomas de Cantilupe had become widely regarded as a saint though not yet canonized, and when in consequence his tomb had begun to draw pilgrims.

Mr. George Marshall, F.S.A., has written a full account of this shrine and its history, which was published in the Woolhope Club *Transactions* of 1930, and I wish here to acknowledge my indebtedness to him; but the feature of the tomb which is of particular interest to-day is the indent of the brass. Mr. Marshall made no real attempt to examine the indent in detail, and when the editor of the Monumental Brass Society's *Transactions* suggested that I should do so, on a first inspection I, too, thought that little of interest could now be gained from it.

This indent is, however, recorded in Mill Stephenson's list¹ because, loose in the Cathedral Library, there is a small figure of St. Ethelbert which is reputed to have come from the Cantilupe brass. The problem of this figure soon began to fascinate me. Is it really part of the brass and if so where in the design was it placed?

Before, however, it was possible to make any real examination of the indent as a whole or to take a rubbing, the whole stone had to be thoroughly cleaned and treated, and I am grateful to the Dean

¹ Mill Stephenson's List of Monumental Brasses in the British Isles, 1926, p. 173.

and Chapter for having so readily allowed me to do all that I considered necessary.

The stone must have been crumbling and decaying for years, and it was covered with dust and grit. The dry dust and loose decayed stone had first to be swept gently away; the whole stone was then thoroughly washed with castile soap and plenty of water. After careful sponging it was left to dry and then treated with three or four dressings of a liquid solution of beeswax and turpentine and finally polished. The improvement has been remarkable: all further decay has been stopped we hope for many years to come, and after this treatment the outline of the indent has become very much clearer. Unfortunately the faint lines in the stone, marking the exact outline of the lost brass in many places where the indent itself is defaced, which have now become clearly visible to the eye, do not come out in any method of rubbing or dabbing that has been tried. If a photograph were possible it would show much more than a rubbing does. Even so, it was possible to take a far better rubbing than had at first seemed possible, and by examining both the rubbing and the stone itself, to discover what the original brass must have been like with surprising accuracy.

Before the rubbing was taken, however, previous references to the monument were examined to see what light they might throw on the brass, and also a study was made of other early brasses—it is often possible to trace a worn indent when one knows what to look for.

As to the first, the writings of many antiquaries were searched but few of them have given sufficient detail to be of any help.

The earliest one of any importance is a statement in the writings of the antiquary Silas Taylor of about 1660, now in the British Museum, that "His figure of brass..was stolen away about the year 1652".1

This is clearly authentic and it is significant that Taylor describes it as a figure, for later authorities (such as Havergal and Marshall) have concluded that there was only a bust of the bishop. The removal of the large effigy of the bishop from under the superstructure must have been no easy matter. Are the two spandrels, which are not part of the original build, repairs necessitated by damage done when the brass was stolen? They might well be seventeenth century work.²

Though Taylor makes no reference to it, it is very likely that the canopy and inscription were stolen at the same time.

² Ibid., pp. 46-7.

Thomas Dingley visited Hereford in 1684 and in his *History from Marble* refers to the Cantilupe indent in the following words: "... Under ye upper arches, were his figure and Inscription inlay'd with brass, which escaped not the rapine of sacrilegious hands." Dingley had just, in the MS., been writing of a "busty", and so he clearly meant a *figure*, not a bust.

There is one other early reference of some interest. Dr. Rawlinson in his Antiquities of Hereford Cathedral, 1717, describes the Cantilupe tomb as "a curious freestone altar-monument, standing on a pedestal, at the top of which was the portraiture of a person in brass, and at his feet two tablets and round the verge an inscription, which are all torn off". Thus Rawlinson also assumed that it was a whole figure by his use of the word feet, though we cannot argue much from his description because the "two tablets" he refers to are undoubtedly the two lower fixing-grooves which can be seen clearly in the rubbing. Later antiquaries have been likewise misled by them.² The large figures of early brasses were fixed with these grooves at the junction of the latten plates, before the invention of pins.³

Dingley and Rawlinson both state that the inscription was torn off in their day. It is a reasonable assumption that the inscription was incised on the outer fillet of brass, though the more usual method of inscribing a monumental brass until c. 1320 was with separate Lombardic letters inlaid in the stone (as at Trotton c. 1310). Archbishop Grenefeld of York (1315) and Sir Roger de Trumpington (1289)4, however, both have an indent of a fillet like the Cantilupe shrine.

In any case, the inscription must have been removed at least on the west side when the arcade of the superstructure was placed in its present position; for the two corners and the central pillar now stand on the indent. This may of course date only from 1857 when the tomb was moved away from the wall and "carefully re-erected".

But Rawlinson, like Taylor, omits to notice two small portions of the brass which we know existed in his time. One of them was the small figure of St. Ethelbert (Mill Stephenson's Hereford Cathedral). Havergal in his Fasti Herefordensis, 1869, illustrates this interesting little figure and records that "it was removed from the dexter side of the canopy by a chorister, A.D. 1819, who carefully preserved it and restored it in 1865". Later archæologists

¹ Vide Harl. MS. 4046. I am indebted to Mr. Marshall for this. Woolhope Club Transactions, 1930, p. 48.

¹ History from Marble by Thos. Dingley (Camden Soc. 1868), part 1, p. clv. ² Woolhope Club Transactions, 1930, p. 48.

³ Cf. indent of St. John's, Perth, described M.B.S. Trans., vol. viii, p. 239.
⁴ This famous brass is now thought to be not Sir Roger but his son, Sir Giles, c. 1300.

have attempted to identify its original position, but though some have claimed to have discovered it, Marshall writes that he found it impossible to fit it into any surviving indent. Indeed it has been doubted whether it really belongs to this brass at all.

Before attempting to identify the indent of St. Ethelbert the statement given by Havergal was considered carefully. It seems certain that the word canopy used by Havergal refers to the superstructure and not the canopy of the indent, which the boy is unlikely to have recognised. I suggest that when the chorister returned the brass he told Havergal that he put his hand under "the right side of the canopy" to get it; but as the word right might mean either side according to the point of view, Havergal interpreted it by using the word dexter (a heraldic term meaning the right hand of the figure and therefore the left side as you look at it from above, facing west).

Now when the rubbing was taken two indents were found quite clearly for small figures one each side of the bishop's mitre in the space below the cusps of the canopy. I first, therefore, tried to fix St. Ethelbert into the dexter indent on the authority of Havergal, but it did not fit: it was then placed in the other indent on the sinister side and fitted exactly!

G. M. Hills, writing in 1871, appears to corroborate this discovery by his statement that "the figure fits into an indent in the stone to the right of the bishop's bust", but it is doubtful whether Hills had correctly found the indent, because it is very worn and I did not trace it until after the general design of the whole had been worked out and the rubbing taken.

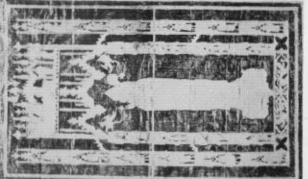
The other figure on the *dexter* side (or left side as you look at it) must, without any doubt, have been a seated figure of the Blessed Virgin Mary and Child, because the Cathedral church of Hereford is dedicated in honour of these two saints.

This is a most interesting feature, because there is no parallel example of an early brass that I know of which has small saints in this position; and until the rubbing had been examined and these indents on the stone itself traced, my opinion was that this figure of St. Ethelbert did not come from the Cantilupe tomb.

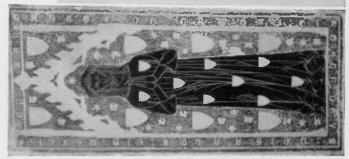
It is worth noting that among the existing brasses of Hereford Cathedral there are two other figures of St. Ethelbert, but both of these show him standing, crowned and holding a church. There are also quite a number of stone effigies on other monuments in the Cathedral treated in the same way. The Cantilupe figure is thus unique.

¹ Woolhope Club Transactions, 1930, p. 49.









Havergal in his note on the figure of St. Ethelbert adds these words: "No other portion of the Cantilupe brasses remain; but so lately as 1846 a beautiful fleur-de-lis of brass was stolen from this shrine." There can be little doubt but that this fleur-de-lis was taken from the top sinister side in the spandrel between the canopy and the pinnacle. The indent of this is still very plain and it is unmistakably a fleur-de-lis without the inverted leopard's head, though this point has been controverted. G. M. Hills, 1871, claimed that he saw "one of the indents showing the leopard's head perfectly" whereas the Rev. C. Boutell in the same year wrote: "There is no trace of the outline of the inverted lion's face."1 From the rubbing we can say without hesitation that Boutell was right.2

Bishop Cantilupe used the plain fleur-de-lis on his seal, but he had also a wolf at his feet to give the play on his name.

Is it not possible that we shall find the same features on his brass?—we have the fleur-de-lis above the canopy, might not the beast at his feet have been a wolf? But more of this later.

No one conversant with monumental brasses, especially after seeing the rubbing, could doubt for one moment that the effigy of the bishop was full length. How was it then that it came to be assumed that it was only half? Havergal, for example, could write of the "slab of purbeck marble formerly polished and inlaid with a half-length effigy of Bishop Cantilupe under a canopy "3; and Marshall describes the brass as follows: "In the centre of the upper part was a bust of the bishop, but only the point of the mitre can now be traced."

Turning to the early brasses which have been some guide to us in rubbing St. Thomas, we find there are indeed very few brasses of this early period still in existence, but by a fortunate coincidence enough to give us all the help needed.

Dame Margaret de Camoys of Trotton (c. 1310) has the indent of a canopy which is just what was required in working out that of St. Thomas, though she had five crockets each side instead of his three, and shields instead of the fleur-de-lis; but the cusps of her canopy were exactly similar and formed a valuable guide for the Cantilupe ones which are much defaced. The only early brass with a canopy remaining is of Dame Joan Cobham of Cobham in Kent, and her canopy is much the same as this.

For the effigy of St. Thomas himself, Archbishop William de Grenefeld of York (1315)—the earliest existing episcopal brass

¹ Woolhope Club *Transactions*, 1930, p. 48, quoted from *Journal of British Arch. Ass.*, vol. xxvii, p. 501 and p. 193.

² Thus Marshall was misled by Hills when he expressed his opinion that

[&]quot;the stone was powdered with fleurs-de-lis and leopards' heads".

² Havergal is the first antiquary to have noticed the canopy; see also Mill Stephenson, List of Monumental Brasses in the British Isles, 1926.

—was the guide. The outline of the bishop's mitre, hair, and ears, and also the thumb and fingers of his right hand raised in blessing are easily traceable on the Cantilupe indent if one has Grenefeld in mind.¹

Unfortunately we have no guide for the head of the pastoral staff—Trilleck of Hereford (1360) is rather too late and this is the earliest remaining. The indent, however, does give us sufficient guide, but, as it is a most unusual treatment, I wish I could support it with other early brasses.

On a careful examination of the stone, after the first rubbing, unmistakable evidence of the staff was found, above the bishop's left shoulder. Now the alignment of this portion of the indent of the staff is directed right across the bishop's body and not only half across as with Grenefeld and most other brasses of bishops. Trilleck's staff is almost vertical as is the staff on Cantilupe's seal. Archbishop Cranley of New College, Oxford (1417), is the nearest parallel to the Cantilupe brass.

Now it so happens that before this interesting feature was observed I had been puzzled by the indent of a narrow strip on the extreme dexter side of the foot of the slab. It had been concluded that it must have been a paw or the tongue of the beast at his foot. Suddenly it was perceived that it was the ferule at the end of the pastoral staff. A long rod placed in the exact alignment by his shoulder soon settled the point and proved conclusively that Bishop Cantilupe's staff crossed right over his body.

The worn indent of the crook of the staff was then examined and again seemed to lead to another unusual conclusion. At this angle there is no room for the usual treatment of the crook turned outward—and sure enough a faint outline of a crook similar in design to that on his seal can be made out turned inwards towards the bishop.

There is no parallel example of a bishop's staff turned that way on a brass and it is uncommon on the more numerous stone monuments. One of the latter, however, namely the effigy of Bishop Godfrey Giffard (1301) in Worcester Cathedral, is particularly interesting in this connection, because not only is the crook turned inward, but also the staff is held across the bishop's body just as it must have been depicted on the Cantilupe brass.² The staff is of course turned forward from the bishop

¹ The crisp curly beard was frequently worn by bishops during the 13th century; but Cantilupe on his seal is represented as clean shaven, like Grenefeld.

² Other examples are —Bp. Hugh Pattershall (1243) and Bp. Walter Langton (1321) at Lichfield; Bp. Wainflete at Winchester; an effigy in The Temple Church, London. The grave of Bp. Richard Gravesend of Lincoln (1279) opened in 1791 had the staff turned inwards. Bp. Godfrey Giffard of Worcester (1301) is illustrated in Hollis's Monumental Effigies, Pt. vi., pl. 2.



E. G. Benson, del.
Suggested Appearance
of Brass of St. Thomas
de Cantilupe.



Brass of St. Ethelbert from Shrine of St. Thomas de Cantilupe.

when he holds it himself; and the usual convention of representing this on a flat brass is the natural one of turning it away from him.

Finally we come to the treatment of the feet. There are clear indications that there was a beast at his feet. Portions of the original surface of marble under the bishop's figure are above the level of the bases of the lateral shafts, which support the canopy, and this strongly suggests a beast in the design. Unfortunately there is no existing brass of a bishop so treated to take as a guide. There are, however, in existence several rubbings of the earliest brass of a priest. Adam de Bacon (c. 1310) formerly at Oulton but now lost; and it had a lion at the foot. Now we find that the Cantilupe indent has a portion remaining of the original surface of the stone beneath the bishop's figure corresponding in shape and position to the similar space on the brass to Adam de Bacon beneath the body of the lion. It is worth noting too that all the knights on the tomb surrounding the bishop have beasts at their feet—so that the design as a whole almost requires one for the bishop too. We suggest, therefore, that Thomas de Cantilupe had a wolf at his feet as on his seal and that its general attitude was that of the Bacon lion. From the imperfect indent we have, however, it is difficult to suggest the exact design of the beast so that in the reconstruction I have been compelled to use my imagination really only on this one feature.1 There is no clear evidence that the inscription went along the foot of the slab and as it abutted against the east wall of the transept it may never have had a fillet on this side.

Having worked on these lines we are now in a position to sketch out with quite unexpected certainty what this remarkable and important early brass must have been like in almost all its detail.

Two features which I believe to be unique: one, the position of the two patron saints of the Cathedral, and the other, the position of the pastoral staff. If we accept the more conjectural wolf at his feet, we have a third. Another unusual feature which should be mentioned here is that this brass is designed for a coffin-shaped slab. According to the late Professor Prior, tombs of this shape went out of use c. 1290 and this seems to confirm our date, except that the Buslingthorpe brass, the only existing brass on a coffin-shaped slab, is now generally dated as late as 1310.

¹ The beast of course may have been a lion. Many stone effigies of Bishops have lions: there are three in Hereford Cathedral. On the other hand, the effigy of a bearded priest in surplice and round cap, probably Precentor John Swinfield (1314) or Chancellor Gilbert Swinfield (1299), has a swine at his feet. This is illustrated in Hollis's Monumental Effigies (1842), vi. 3; but wrongly attributed to Dean Borew (1462). The knights round the Cantilupe shrine have a large variety of animals at their feet, only two have lions.

Finally mention must be made of the knights in armour as weepers, as this is an unusual feature for an episcopal monument. One explanation of this which is often given is that they were Knights Templars, but there is no evidence that Cantilupe had any connection with that Order. The indent of the lost brass of Bishop Beaumont of Durham gives an interesting parallel example. It is somewhat later in date (1333) and the whole design is in brass-but this bishop is also surrounded, in an outer canopy, by knights in armour. He was a man of noble lineage and in the Rites of Durham written in the sixteenth century, before the brass was stolen, we are told that in the outer border of the brass monument are "the pictures of his ancestors in theire coat armour, being the bloude royal of France". With this we can compare the brass to Sir Hugh Hastings at Elsing (1347). Cantilupe too belonged to one of the great baronial families. Are not these figures then also "pictures of his ancestors in theire coat armour"? If this is so, it would satisfactorily explain why there are no armorial shields on the brass itself, as we should have expected to find.

It is certain that Hereford Cathedral has lost many of its finest brasses; but would we not be willing even to sacrifice the best that is left for this one—the only one erected in an English Cathedral to a canonized saint? As I crouched and twisted myself to study its indent I felt that it surely ought to have been safe under that protective stone canopy. Why did the thief of 1652 take this one and leave others which could have been removed so much more easily?

A MUTUAL INSURANCE SOCIETY TO EASE THE BURDEN AND EXPENSE OF SHERIFFS IN THE COUNTY OF HEREFORD. FOUNDED IN THE YEAR 1729/30.

By GEORGE MARSHALL, F.S.A.

Among the documents from Canon Frome given to the Hereford City Library by Mrs. Hopton, is one setting out the rules for an insurance against the expenses of those called to serve the office of sheriff in the county of Hereford.

The rules and minutes of the meetings are written on four skins of parchment, the first two feet six inches long by one foot five and a half inches wide, the other three being somewhat less, and two paper folios appointing the stewards to the subscribers.

The heading reads as follows:-

"At a General Meeting of the Subscribers for Easing the Burden and Expence of Sheriffs to Serve for the County of Hereford upon the Fourteenth day of January One thousand Seven hundred and Twenty-nine pursuant to their Subscription and for Confirming Establishing and further Regulating thereof The Subscribers then present Did Agree upon the Articles, Orders, Method and Manner hereafter menconed and Wee whose names are hereunder written doe Agree to Order Ratifye and Confirme the Same."

Then follow the "Articles, orders", etc. Every subscriber was to pay five guineas at the time of subscribing and one guinea every year until appointed sheriff, but a subscriber might pay ten guineas without any annual payment, though after the last day of the next summer assizes a subscriber had to pay ten guineas down and an annual subscription of one guinea, or could compound by paying twenty guineas. Anyone becoming qualified to serve the office could within six months of such qualification become a subscriber on the terms of an original member, otherwise he must pay the ten guineas, etc. No person was to be admitted a subscriber at the time he was nominated upon the Roll made in the Exchequer: but anybody appointed sheriff could have the benefit of a subscriber by paying f80 0s. 0d. The annual subscription was to be due at Michaelmas, and if not paid within a year the subscriber to forfeit the benefit of his subscription.

Out of the money subscribed a set of liveries for eighteen men, two trumpeters, and six bailiffs, with banners and halberds, and all other things necessary were to be provided and kept by the steward.¹ Thomas Davies of the Newhouse, Esq., the then High

¹ The sheriff's coach is not mentioned. No doubt at this time the judge and his retinue arrived on horseback, and if a coach were used in the city it would have been the private property of the sheriff.

Sheriff and all succeeding him who were subscribers were to have the use of these things during their sheriffaltry. No subscriber was to keep any "public Treat or Entertainment for Persons resorting to the Assizes in his Sheriffalty". The steward was to pay the sheriff's men, trumpeters and bailiffs half a guinea each at every assize instead of entertainment, and to pay the sheriff £14 2s. 0d. to defray the incidental expenses and necessary charges, "To witt for a Cold Treat or Entertainment for the Gentlemen attending the Sheriffe to Meet the Judges; £10 0s. 0d. for the Church Officers for their fee; 8/- for the ringers at the Several Churches for Ringing at the Sheriffs goeing through the Town to meet the Judges, and £1 7s. 0d. at the time of the Judge's comeing in, £2 2s. 0d. for the Two Trumpeters for playing and attending during Assizes", and 5/- for the City Drummers.

A committee was appointed of the following gentlemen: Robert Gwillim of Lanxton [Langston in Llangarron], Thomas Foley, Jun., of Stoake Edith, Richard Dansey of Brinsop, William Gregory of Woolhope, Herbert Aubrey Jun., of Clehonger, James Wallwyn of Longworth, Timothy Geers of The Marsh [in Bridge Sollers], William Brydges of Tyberton, Richard Hopton of Canon Froome, and Roger Hereford of Sufton, Esqrs., five of them to form a quorum. They were to get an account from the Steward of the moneys he received, which was to be laid up as a stock for making new liveries as often as necessary. The committee was to act until the subscribers at a general meeting elected or nominated others.

The original members appointed John Davies of the city of Hereford to be steward and he had to give a bond for £500 0s. 0d., which is copied on the paper folio. For his trouble he was to have £10 0s. 0d. yearly, except in the year when he was under sheriff.

There was to be a meeting of the subscribers every year at the summer assizes. No previous article or order was to be altered or made void unless there was a majority of the subscribers present, "and wee do agree that no Subscriber shall Give a Man in Livery to any future Sheriffe". Possibly this clause was to avoid ostentatious competition.

A subscriber on becoming sheriff had to take the oath appointed in the presence of two others, who were to certify the same to the committee before the steward provided the liveries and paid the allowances.

The original subscribers whose signatures are attached to the document, with £5 5s. 0d. against each name were:—

Tho. Foley Junr.
Herbt Aubrey Jun.
Robt Gwillym
Tim. Geers
Pak: Tomkyns
R. Brydges
J. Nourse
John Geers

R. Hopton
Tho: Symonds
Fra: Biddulph
J: Walwyn

John Morton John Skinner Mansell Powell¹

The following is a list of various meetings and the substance of the business transacted:—

On the second skin :-

1730. 20th July. All future subscribers were to pay a guinea annually and could not compound, but could subscribe on the original terms on or before the 6th October following, when a meeting was to be held at Mr. Thomas Ford's in the city of Hereford at 4 o'clock in the evening. Subscribers were to pay five shillings at the Lent assizes when one of their number was sheriff for a half-crown ordinary [dinner] at each assizes for the subscribers, and they were to meet the day after the Grand Jury were sworn to dine with the sheriff.

[No signatures of those present.]

1733, 2nd October. It was ordered that there was to be no cold treat or entertainment at the expense of the subscribers when meeting the judges and that the £10 0s. 0d. allowed for such entertainment at each assize be not paid for the future. [Evidently the funds were low. No signatures.]

1734. 6th August. Edmund Pitt, Esq., be allowed to subscribe having not lived in the county of Hereford, and therefore not apprized of the contents of the articles, upon payment of five guineas only for his subscription.

1736, 26th August. Ordered "that any person may be a subscriber notwithstanding any preceeding order to the contrary provided such full subscription be made at the Lent assize or at any time before the first day of Michas term yearly".

Signed by V: Cornewall, Rog^r. Hereford, E. Harley, Jun., J. Capell, Edm^d. Eckley, John Geers, H. Aubrey, Jun^r., R. Hopton, W. Gregory, Pak. Tomkyns, J. Nourse, Rob^t. Gwillym.

1737, 9th August. Ordered that an enquiry be made annually into the condition of the liveries at the general meeting of the summer assizes, and no order for new liveries be made at any other meeting, and if any subscriber be appointed sheriff for the ensuing year the existing liveries were to be used.

Signed by Richard Gorges, E. Harley, H. Aubrey Junr., J. Nourse, John Kyrwood, Scud. Lechmere, Robt. Unett, Thos. Gwillim, Essex Sherborne, Robt. Biddulph, Robt. Gwillym, R. Hopton, V. Cornewall.

1744, 17th July. Ordered that no new liveries be bought for the next subscribing sheriff, unless he was willing to purchase new ones as good as the last at his own expense, assisted with the sum of £40 0s. 0d. from the subscriptions for that purpose.

Signed by Wil Brydges, Thos. Foley, Uvedale Price, R. Hopton, Robt. Gwillym, H. Aubrey, Junt., Tho: Foley, Junt., John Geers, R. Brydges, J. Pateshall, Jon. Elton, Tim. Geers, Thos. Gwillym.

This ends the second skin, and the minutes of the following meeting are entered on a blank space at the bottom of the first skin.

1746, 15th December. Ordered that Mr. Caswall be security for Mr. Davies the steward being superannuated [i.e., being impaired by old age].

¹ See letter from the Duke of Chandos re this man on p. 84.

The steward to give a new bond, with sufficient security before any two of the committee at or before next Epiphany sessions.

Signed by R. Hopton, Tim. Geers, J. Walwyn, H. Aubrey, Robt. Gwillym.

"The ninth day of January, 1746, the bond above mentioned was executed before us And John Whitmore of ye Haywood Esq¹ was security for the s^d steward. R. Hopton, Rob^t. Gwillym." [This is the bond sewn to the first skin.]

On the third skin :-

1748, 2nd August. Whereas several Gentlemen of the late Committee were dead and others infirm and others have served the office of Sheriff, it was Ordered that the following be elected a Committee. Sir John Morgan, Bart., Thomas Foley of Stoake Edith Esqr., Thomas Foley of Newport Esqr., Richard Hopton Esqr., Timothy Geers Esqr., Herbert Aubrey Esqr., John Pateshall Esqr., John Geers Esqr., Howorth Cook Esqr., Robert Unett Esqr., and William Hoskyns Esqr.

Ordered that the Steward wait in person on members in arrears with their subscriptions and report at the summer assizes in 1749, with the intent that those who had not paid their arrears should lose the benefit of their subscription.

Ordered that new liveries be made for the next subscriber appointed Sheriff viz., eighteen liveries for the Sheriff's men and two for the trumpeters. [No mention of any for the six bailiffs.]

Ordered that the steward bring the accounts to the Committee on the first day of the Michaelmas Sessions.

Signed by John Morgan, Tho: Foley, H. Aubrey, Tho: Foley Junt, R. Brydges, T: Gwillym, H. Cooke, John Geers, John Patershall, John Elton, R. Hopton.

1752, 21st July. Ordered that Mrs. Susannah Davies, widow of Mr. John Davies, late Steward be continued till Michaelmas next, and she then make up the accounts with the Committee on Thursday the 5th day of October next in Michaelmas Sessions week.

Ordered that William Gregory of the City of Hereford, Esqr., be added to the Committee.

Ordered that Thomas Church of the City of Hereford, Gent., be appointed Steward on his giving proper security on the 5th October next.

Ordered that the money due to the Gloucester printer for printing the advertisements be paid by Richard Hopton, Esqr., and that he be authorised to receive all moneys until the new Steward gives in his security.

[Written in a different hand on the side is] "N.B. It was ordered that this order should be printed in the Gloucester Journal tho omitted by ye clerk."]

Whereas the subscription had very much Suffered by the great Arrears standing out It was therefore Ordered for the future that all Subscribers pay one year's Subscription before another was due after demand thereof. Otherwise they lost all benefit of the subscription.

Signed by Oxford and Mortimer, Tho. Symonds, Herb[‡]. Aubrey, Rob: Unett, Howorth Cooke, R. Hopton, Tho: Foley, Will. Skinner, W. Hoskyns, Tho⁸. Dunne.

On the fourth skin :-

1753, 21st August. Ordered that William Cope Gregory, Esq., James Hereford and James Brome, Esqrs., be added to the Committee.

Signed by Thomas Dunne (sheriff), R. Hopton, H. Aubrey, W. Gregory, T. Cockrain, W. Hoskyns, John Geers, John Pateshall, R: Brydges.

1754, 15th August. Ordered that after the first day of Michaelmas Term, 1754, no person be admitted to subscribe but between the first day of March and the Twenty-fourth day of June.

Signed by Tho: Foley, R. Hopton, W. Gregory, H. Aubrey, Tho: Symonds, W: Hoskyns, J. Pateshall, Will. Skynner, Js. Hereford, John Geers, R. Brydges, J. Brome.

[This is the last entry: about half the skin is blank.]

The first document appointing a steward takes the form of a bond for £500 0s. 0d. on the appointment of John Davies. It is sewn to the first parchment, and is on folio paper. It sets out that John Davies of Upper Bullingham, gent., and John Whitmore of the Haywood Esqr. are held firmly bound to Robert Gwillym of Lanxton, Esq., Thomas Foley senr. of Stoke Edith, Esqr., Richard Hopton of Canon Froome, William Gregory of Woolhope, Esqr., and Herbert Aubrey of Clehonger, Esqr. Dated 9th January, 20 Geo. II (1746-47). The witnesses were Charles Gwillym and Joseph Parker. There are two small armorial seals, apparently the same but undecipherable.

The second document appointing a steward after the death of Davies is sewn to the third skin. The wording is practically the same except that Thomas Church of Hereford Gent., is named as steward, who, together with James Terry Esqr., is bound in £500 0s. 0d. as before to Thomas Foley, Richard Hopton and William Gregory of Hereford, Herbert Aubrey, and Thomas Pateshall, Esqrs. Dated 5th October, 1752. It is witnessed by Wm. Robinson and Wm. Stock, who use the same small seal 2 bars in bend (or in pale) between nine escallop shells (probably for Robinson).

Appended is a list of the gentry who appear to have been members of the "subscription" in the order in which they appear in the document, to which are added some particulars to identify them.

O= Original member. C=Committee. B=Date of birth. D=Date of death. H.S.=High Sheriff.

- 1. Davies, Thomas, of Newhouse (in Stretton Grandisson). He was a newcomer to the county having bought Newhouse not long after 1715. H.S. 1729. O.
- 2. Gwyllim, Robert, of Lanxton. D. c. 1750. O. C. Married Jane, only d. of Robert Symonds.
- 3. Foley, Thomas, Jun., of Stoke Edith. Son of Thomas Foley who died in 1737. D. 1749. O. C.
- 4. Dansey, Richard, of Brinsop. Son of Wm. Dansey, died 1715. D. 1740, aged 70. O. C.
- Gregory, William, of Woolhope. Son of Wm. Gregory and Elizabeth (her first husband), daughter of Thomas Geers. D. 1765, aged 65. O. C.

- 6. Aubrey, Herbert, Jun., of Clehonger. Son of Herbert Aubrey of Clehonger, whom he succeeded in 1744. B. 1693, D. 1758. O. C.
- Walwyn, James, of Longworth, Lugwardine. Son of James Walwyn of the same place. B. 1690. D. 1766. H.S. 1732. O. C.
- 8. Geers, Timothy, of the Marsh, Bridge Sollers. Son of Thomas Geers, sergeant-at-law. D. 1750, aged 78 years. O. C.
- Brydges, William, of Tyberton. Son of Francis Brydges of Tyberton. B. 1681. D. 1764. H.S. 1743.
- Hopton, Richard, of Canon Frome. Son of Edward Hopton.
 B. 1684. Married Elizabeth, daughter of Thos. Geers, sergeant-at-law (No. 5) (her second husband). D. 1764. O. C.
- Hereford, Roger, of Sufton, Mordiford. Son of John Hereford.
 B. 1687. D. 1744. O. C.
- 12. Symonds, Thomas, of Sugwas and Pengethly in Sellack. Son of Robert Symonds of Lincoln's Inn.
- Biddulph, Francis. Second? son of Anthony Biddulph of Ledbury. O.
- 14. Tomkyns, Packington, of Buckenhill in Bromyard. Son of Nathaniel Tomkyns.
- 15. Brydges, R.
- Nourse, J., of Weston-under-Penyard. Son of John Nourse.
 B. 1696. D. 1751. Married in 1721 Elizabeth, only daughter of Wm. Gregory of Woolhope. O.
- Geers, John, of Garnons. Son of Francis Geers of Hereford, and first cousin to Timothy Geers (No. 8). B. 1698. D. 1762. O.
- 18. Morton, John, of Ledbury? One of the family of Goldhill in Eastnor. See Eastnor, by the Rev. H. L. Somers-Cocks, p. 180.
- Skinner, John, of Bickerton in Much Marcle. Son of Wm. Skinner. B. 1764. H.S. 1738. O.
- Powell, Mansell. Held the prebendal estates of Moretoncum-Lugg. Son of Rev. Roger Powell, rector of Moretonon-Lugg. D. 1775, aged 79 years. O. H.S. 1751.
- Cocks, John, of Castleditch, Eastnor. Son of Charles Cocks.
 Married his cousin Mary, only daughter and heiress of the Rev. Thomas Cocks. D. 1771.
- 22. Pitt, Edmund, of Wyre, Worcestershire?
- 23. Cornewall, Velters, of Moccas. D. 1768 aged 72 years.
- 24. Harley, Edward, Jun., of Eywood, Titley. Son of Edward Harley of Eywood and cousin and heir male of Edward Harley, second earl of Oxford and Mortimer. B. c. 1699. Succeeded to peerage 1741. D. 1755.

- Capell, John, of Monnington. His daughter Mary married John Whitmore of Haywood (No. 40). H.S. 1731. D. 1755 aged 96.
- 26. Eckley, Edmund, of Credenhill. H.S. 1740. D. 1759, aged 67.
- Gorges, Richard, of Eye. Son of Henry Gorges. B. 1707.
 H.S. 1736/7. D. 1749.
- 28. Kyrwood, John, of Letton.
- Lechmere, Scudamore, of Fownhope Court. Son of Nicholas Lechmere of Fownhope. Married Jane daughter of Edmund Pateshall of Allensmore.
- 30. Unett, Robert, of Castle Frome. Son of Francis (or Robert) Unett of Castle Frome. Presented to living in 1752. C.
- 31. Gwillim, Thomas. H.S. 1731.
- Sherborne, Essex, of Pembridge. Son of Nicholas Sherborne, rector of Pembridge. B. 1698. D. 1740.
- Biddulph, Robert, of Ledbury. Son of Anthony Biddulph.
 B. 1682. D. 1772. Brother of No. 13?
- 34. Price, Uvedale, of Foxley, Yazor. Son of Robert Price of Foxley, baron of the Exchequer. B. 1685. D. 1768.
- 35. Foley, Thomas. This is the same man as No. 3.
- 36. Foley, Thomas, Jun., son of Thomas Foley (No. 3) of Stoke Edith. B. 1716. First baron Foley. D. 1776.
- Pateshall, John, of Allensmore. B. 1714. H.S. 1744. D. 1772. C.
- Elton, John, of Munsley and Homme House, Much Marcle.
 B. 1681. D. 1765.
- 39. Walwyn, J. Probably the same as No. 7.
- 40. Whitmore, John, of the Haywood. Probably a "subscriber". Son of John Whitmore of Womaston, Radnor, and heir to his uncle Wm. Whitmore. H.S. 1741.
- 41. Morgan, Sir John, Bart., of Kinnersley. Only son of Sir Thomas Morgan, bart. B. 1710. H.S. 1751. D. 1767.
- 42. Foley, Thomas, of Newport, Almeley. C.
- 43. Cook, Howorth, of the Moor, Holmer. Son of Charles Cook of Lingen. B. 1715. H.S. 1762. D. 1787.
- 44. Hoskyns, William, of Bernithan?, Llangarren. B. 1698. C.
- 45. Dunne, Thomas, of Gatley Park. Son of Thomas Dunne of the same, who died 1734, aged 59. H.S. 1753. D. 1770.
- 46. Gregory, William Cope. Son of William Gregory, serjeant-at-law (No. 5). H.S. 1753. D. s.p. 1789, aged 68.

- 47. Gregory, William, of Hereford. Son of William Gregory who married Elizabeth daughter of Thomas Geers of the Marsh. (See No. 5.)
- 48. Oxford and Mortimer, Earl of. Presumably the same as E. Harley, Jun., 1736. (No. 24.) Apparently he continued his subscription though not liable to serve as Sheriff.
- 49. Skynner, William, of Underdown, Ledbury. Son of John Skynner of the same place. D. 1764.
- Hereford, James, of Sufton, Mordiford. Son of Roger Hereford (No. 11). B. 1713. H.S. 1761. Knighted on presenting an address on accession of George III. D. 1786.
- Brome, James. Son of William Brome of Ewithington. Married Mary daughter of Timothy Geers (No. 8). H.S. 1758. D. 1770, aged 68. Friend of Pope.¹
- 52. Pateshall, Thomas.

Of the fifty-two gentlemen who joined the insurance scheme, sixteen only served the office of High Sheriff, five of these after the year 1752, when the scheme apparently came to an end. As no accounts are known to exist, it is not possible to say if it was financially sound.

Copy of a letter from the Duke of Chandos re Mansell Powell in the Tyberton papers in Hereford City Library given by Lady Gurney of Walthamstow Abbey, in September, 1945.

"Shaw, 13th Nov. 1731.

"The favour of yours of the 8th Novembr came safe to my hand, and ye request you made in behalf of Mr. Mansell, I believe will meet with no great difficulty in being obtained; I don't know whether I shall be in town at ye pricking of ye Sheriffs, nor consequently whether I shall be present in Council to serve him, but if he will apply to my Ld Chancellor, I make no question but he will be easily gratified in what he desires. It is pretty strange he should Court a lady of considerable fortune, if what I am assured from good hands is true, that he is a practising Attorney, has little business, and less estate, for what appears to be in his name, is not his own, but in trust for other People as is said.

I was in great hopes I should have seen you at ye Bath. Your company would have been exceedingly agreeable to me, and it is a place where one may spend a week or ten days pleasantly enough.

The Duchess of Chandos joyns with me in our humble services to yourself and Lady, and I desire you to be assured I am most sincerely

Your very Affect: kinsman & faithfull Humble servant
Chandos.

Mr. Brydges of Tyberton."

The paper on which the letter is written has gilt edges, true to the type of the "Princely Chandos". There is no address on it so no doubt it was sent under a separate cover.

The Mr. Brydges was William Brydges of Tyberton, son of Francis, who built the church and house there.

There are other letters from the Duke, but not in reference to Mansell Powell, to William Brydges in the Tyberton MSS. in the Hereford City Library.

¹ Translated the Odyssey for Pope, and wrote all the notes, but not acknowledged by the poet. Henley wrote

Pope came off clean with Homer, but they say Broome went before and kindly led the way.

THE EARLY HISTORY OF THE WOOLHOPE CLUB.

By Capt. O. B. Wallis, President of the Woolhope Club.

READ AT THE ANNUAL SPRING MEETING, 7TH APRIL, 1949.

The Woolhope Club having been born late in 1851, its members soon began bringing in curious and interesting things until the nucleus of a collection was formed, and after less than five years the Club appointed a Museum Committee, on the 22nd January, 1856, on the motion of the Rev. J. F. Crouch. This Committee consisted of the President (Mr. Hewett Wheatley), the Honorary Secretary (Mr. J. A. F. Suter), the Rev. T. T. Lewis, the Rev. J. F. Crouch, Mr. R. M. Lingwood, and Mr. Flavell Edmunds. On the 16th September following it reported in favour of forming a museum, but that negotiations with the Philosophical Institution for the use of part of the latter's building had broken down over the question of rent. There matters seemed to hang fire, and no doubt the reason was the very usual one that there were no funds for putting up a building.

After fourteen years matters took a turn for the better. Sir James (then Mr.) Rankin was President of the Club and was in the happy position of being able to make a very generous gift. As a result the Museum Committee was again formed, on the 22nd February, 1870, and in his address on retirement that day the President, in recommending the proposed museum, said among other things: "I would urge the establishment of a museum for the sake of having a suitable room for meetings and for our library, which, I trust, some day will be larger than it is at present".

The members of the new Museum Committee were the new President (the Rev. H. Cooper Key), Sir George H. Cornewall, Bart., Mr. James Rankin, Dr. D. M. McCullough, Mr. Arthur Armitage, the Rev. C. J. Robinson and the Rev. James Davies. A year later, on the 23rd February, 1871, it again reported in favour of erecting a museum, and also of adding a public library. The Committee further reported that the necessary funds had been provided, that the Town Council would give its support, that the management of the museum and library would probably be in the hands of a joint committee of the Woolhope Club and the Town Council, and that there would be a separate and private room for the Woolhope Club. It was hoped that the City would support the project by adopting the Public Libraries Act of 1855, and with this end in view a joint committee of the Town Council and the Woolhope Club met and deliberated. According to the

Town Council minutes of the 2nd May, 1871, this joint committee, having been appointed "to consider the offer of J. Rankin, Esq., to purchase a site and erect suitable buildings for a Free Library and Museum in the City of Hereford in connexion with the Woolhope Naturalists' Field Club", reported its resolution that it was desirable that a free library and museum should be provided "on Mr. Rankin's responsibility" and provided that the town would put the Public Libraries Act into operation. Mr. Thomas Cam was Chairman of the joint committee and signed the report.

In order to adopt the Act of Parliament a public meeting had to be held in accordance with Section 4 of the Act and it was duly held at the Guildhall, Hereford, on the 31st July, 1871.

At that meeting it was proposed by Mr. Alderman Anthony, seconded by Major-General Goldsworthy, and unanimously resolved that the hearty thanks of the citizens of Hereford should be given to Mr. Rankin for his munificent offer to provide a building for a free library and Museum, which offer was gratefully accepted. A further resolution, proposed by Mr. J. Cleife Lane and seconded by Councillor E. Smith, was also unanimously carried, that as Mr. Rankin, in so generously erecting a building for a free public library and museum for the City, intended in the same building to provide accommodation for the Woolhope Club, the citizens of Hereford cordially welcomed the existence of the Club, and sincerely hoped for its co-operation in carrying out the objects of the proposed institution.

The building was duly erected in 1872 on a site in Broad Street, Hereford, after no less than nine other sites had been inspected and rejected. The front room on the first floor was reserved as the headquarters and library of the Woolhope Club, in accordance with the intention of the donor. The request for the co-operation of the Club has always been complied with, and the greater number of the exhibits in the museum have been given by the Club's members.

It will thus be seen that, so far from the City's having given headquarters to the Woolhope Club, it was the initiative and guidance of the Club, and the generosity of its President, Sir James Rankin, to which the City owed the building, and it should be realised that the Club, in thus allowing the City to have the lion's share, has only retained for itself its one ewe lamb.

LIST OF STAINED-GLASS WINDOWS INSERTED IN HEREFORDSHIRE CHURCHES 1929 TO 1948, WITH NAMES OF DESIGNERS.

- Aston Ingham. Four-light window, east end. A. J. Davies, F.B.S.M.G.P., 1923.
- Bromyard. East window, 1933; west window, 1937. A. K. Nicholson Studios. (G. E. R. Smith, F.B.S.M.G.P., H. L. Pawle, F.B.S.M.G.P.)
- Hereford Cathedral. Two five-light windows, Stanbury Chapel 1928. A. J. Davies.
- Hereford Cathedral. Reinstatement of grisaille in N.E. transept 1938. (W. wall.) Alfred L. Wilkinson, F.B.S.M.G.P.
- Hereford, All Saints. Three three-light windows east end 1933; window over south porch; one clerestory window, 1947. M. E. Aldrich Rope, F.B.S.M.G.P.
- How Caple. Three two-light windows, north aisle: four-light east window; two-light chancel window, 1920-1930. A. J. Davies.
- Ledbury. Single-light, 1930. Whall & Whall. (Veronica M. Whall, F.B.S.M.G.P.)
- Leominster. Four-light window, south aisle of nave, 1938. Geoffrey Webb, F.B.S.M.G.P.
- Whitbourne. Single light on south side. John Hardman Studios. (Donald B. Taunton, N.R.D., F.B.S.M.G.P., Patrick A. Feeney, F.B.S.M.G.P.) 1935.
- Yarkhill. 1949. Two-light nave window, by Abbot & Co. I. E. Singleton, F.B.S.M.G.P.

REPORTS OF SECTIONAL EDITORS for 1949.

ARCHÆOLOGY

By F. C. Morgan, F.S.A.

SUTTON WALLS

The following report upon the excavations at Sutton Walls in 1948 has been received from Miss Kenyon, who was in charge of the work.

"In 1948 the Ministry of Works sponsored three weeks excavations at Sutton Walls, where much interesting material had been recovered by Mr. George Marshall and Miss Wight. An average of three paid workmen and eight volunteers were engaged on the excavations. Two cuts were made through the ramparts. These showed that the flattened appearance of the interior of the camp is due to the ploughing down of the ramparts; the plough material overlying occupation material on the tail of the rampart. In this material was a considerable quantity of Iron Age pottery, much of it with stamped pattern, including the so-called "duck" type. The core of the rampart appeared to be all of one period, and to consist of alternate layers of clay and gravel. On the north side a cut was taken across the terrace at the base of the rampart, showing that beneath it was a sharply cut ditch, the bottom of which was not reached.

In the interior of the camp a strip one hundred and sixty feet long was cleared in squares ten feet by six feet. In this two Iron Age huts were revealed; one comparatively barren, but the other very large and with a considerable amount of Iron Age pottery, including a very large pot crushed on a hearth. The base of this pot was not reached.

Underlying the Iron Age levels was a considerable amount of Roman occupation, including two infant burials."

CRUCK BUILDINGS

Two more cruck buildings in Herefordshire can be recorded. There is a good example called Blewhenstone, at Hoarwithy, and our member, Mr. L. S. Parker, in making improvements at Foley Cottage, Tarrington, uncovered a pair of crucks. This brings the total number recorded for the county up to no less than one hundred and forty-three.

MILITARY BADGE OF THE 17TH CENTURY

Mr. A. J. Rowberry recently lent me a military badge of the 17th century which had been dug up some years ago at Mordiford.

BRONZE AGE FIND AT BROADWARD

When on a few days holiday at Leintwardine last June a bronze spearhead found at Broadward, Clungunford, was shown to me. This was photographed and sent to Miss Chitty for a report, but as further particulars of this, and of many others found some years ago at the same spot, only a few feet outside this county, are wanted, it is not proposed to give the report in full. Apparently the find was one of the largest in this district and is worthy of much study. The hoard was first known in 1867, but many more implements were uncovered shortly before the war of 1914-18, and these have not been fully described. Some belong to Mr. G. H. Jack, who was given them from a boxful then at Broadward Hall.

HEREFORD CATHEDRAL

Attention must be called to the work done in the Cathedral church during the past year. The monument of Sir Peter de Grandisson has been cleaned and painted. Mr. Keevil says that the effigy is the only one of the period that he has worked upon which did not need any repair: it is perfect in condition. The colouring has well brought out the costume and armour: the difference in each article being very distinct. The method of securing the helm to the chain mail is shown; this was practically invisible before.

The canopy needed some repairs, and the heads of the figures of saints, etc., are new this year, with the exception of St. John the Baptist, which was copied some years ago from an effigy from old St. Nicholas church, now in the south-east transept.

The tomb of Precentor John Swinfield in the Lady Chapel also has been cleaned and coloured, but although traces of colour were found on the effigy itself, this has been left plain.

The Lady Chapel vaulting has been cleaned and limewashed, greatly improving the lighting, and the bosses and capitals have been gilded. The ambulatory is now being treated in the same way. Unfortunately, in my opinion, advantage was not taken of colouring the ribs of the Lady Chapel. From the scaffolding it was possible to see many traces of paint and gilding upon these.

All the foregoing work has been carried out by Mr. M. Keevil, who has worked under the instructions of Professor A. E. Tristram, the great expert in this branch of archæology.

All this expensive work has been paid for by the "Friends of the Cathedral". During its progress I secured a large number of photographs of details of the fine carvings and mouldings from positions that are not usually available. It is hoped that slides of these will be shown to the Club in the not too distant future.

BOTANY, 1948

By EDWARD BALL, M.A.

There is little to report for the past year, but the following notes may be of interest.

The late Miss F. M. B. Marsh, F.L.S., reported the discovery of a plant new to Herefordshire. This is the Canadian erigeron, Erigeron canadensis, L. This plant was found by Miss Marsh in bloom in June, July and August of 1947 in gutters and on the roadside at Overbury Road, Hereford. It was also found in a roof gutter of a derelict house in Church Street. This plant is not mentioned in Druce's Comital Flora as occurring in Herefordshire. Bentham & Hooker, in their Flora, state that this plant is a native of North America and that it is now established in the greatest abundance as a roadside weed in almost all temperate and hot countries and appears occasionally as such in England. In the most recently published county flora, the Flora of Gloucestershire, published in 1948, this plant is mentioned as a "naturalised alien" found on docks, waste grounds and railways. A number of stations are mentioned for Gloucestershire:

In March, 1948, the late Mr. G. T. Leigh-Spencer reported the discovery on Backbury hill of several fine specimens of the stinking hellebore, Helleborus fætidus L. Mr. Spencer stated that the majority of the plants were growing on the forward slope of the hill. He also stated that he had found a single specimen growing on the highway between Ledbury and Colwall. This hellebore is a native plant and is found chiefly in limestone woods. I myself found this plant in the same place referred to by Mr. Leigh-Spencer, in 1937. In the Herefordshire Flora it is referred to as being local and rather rare. It is there recorded as to be found at the foot of Adam's Rocks, Backbury hill, so it is interesting to know that after all these years it is still to be found in the same station.

Mr. Gavin Robinson reported the discovery of the thorn apple, *Datura stramonium*, L., in the garden of the Vicarage at Turnastone. In the Herefordshire *Flora* this plant is referred to as rare and uncertain in its appearance and this is the first record, as far as I know, of its occurrence in botanical district No. 13.

BOTANY

By Major A. E. W. Salt, M.A.

The most interesting finds this year (1949) have been: Carduus eriophorus (woolly-headed thistle); Menyanthes trifoliata (buckbean) in Moccas Park; Anagallis tenella (bog pimpernel) and Neottia nidus-avis (bird's-nest-orchis) both at Lower Bucknell; Senebiera coronopus (swine's cress) and Dipsacus pilosus (small teasel) both along the Wye; Trollius europæus (globe flower) and Dianthus armeria (Deptford Pink) in Norton Canon; Helleborus viridis on Dinmore Hill; Hypericum montanum (mountain St. John's wort); Trifolium striatum (knotted trefoil), Potentilla argentea (hoary cinquefoil), Aquilegia vulgaris (columbine), and Carum caris (caraway).

Among alien plants which have become naturalised, and garden escapes reported are Atropa belladonna (deadly nightshade); in Wigmore; Eirgeron canadensis (canadian fleabane) in Hereford; Doronicum plantagineum (leopard's bane) in Dilwyn, as recorded in 1882; Inula helenium (elecampane); Fritillaria meleagris (fritillary) in the Lugg Valley; Sedum telephium (orpine) in King's Pyon; Polemonium cæruleum (Jacob's ladder) near Pembridge, and Tulipa sylvestris (wild tulip).

Asarum europæum (asarabacca) has increased in its one station in the county.

The Club visited the service tree between the Portway and Winforton on 9th June: I hope this and the wayfaring tree (Viburnam lantana) on the Holme Lacy road beyond Rotherwas may long be preserved. I represented the Club at the inquiry into the quarrying on the Great Doward: the matter is still under discussion but the most important botanical area has been saved, providing that the quarry company do not insist on making an access road along its edge. The preservation of the whole of this area as a Nature Reserve may be considered in the future.

ORNITHOLOGY

By Captain H. A. Gilbert and Dr. C. W. Walker.

RESIDENT BIRDS

Fortunately for our bird-life the winter of 1948-49 was mild and open, like its predecessor. This enabled resident species, hard-hit in the exceptionally severe weather at the beginning of 1947, to recover still further. There were more wintering songthrushes (Turdus e. ericetorum) and in the spring the song of the goldcrest (Regulus r. anglorum) was reported from Garnons, Belmont, Aylestone Hill and Kington. Winter flocks of long-tailed tits (Ægithalos caudatus sp.) were less of a rarity, and nests of our resident bird (Ægithalos caudatus rosaceus) were found at Byford (H.A.G.) and at Lucton (P. W. Hinde). Flocks of juveniles were noted in several parts of the county.

The buzzard (Buteo b. buteo) and raven (Corvus c. corax) appear to be thriving in Herefordshire. A pair of buzzards nested this season within two miles of Hereford. On 26th February, a cream-coloured buzzard was seen at Moccas by Mr. J. E. M. Mellor. He describes it as being coloured like a barn owl—a case of partial albinism. A pair of ravens reared a brood for the second year in succession near our Worcestershire border, and a new site in the Leominster district has also been used for two years. A pair of ravens nesting at a long-occupied site in mid-Herefordshire had their nest with three fully-feathered young blown down in the gales of the first week of April.

Herefordshire cannot now claim the kite (Milvus m. milvus) as a resident bird, though we still hope it may return to us. In June a pair of kites were under observation in our area: sad to say they did not settle, but moved on without nesting. Another report of a kite has reached us, but it may bear reference to one of the above-mentioned pair.

The woodlark (*Lullula a. arborea*), very scarce since 1947, is now reported to be back again on some of its "accustomed hills". On 30th September, Mr. R. E. H. Baily saw a large number of woodlarks soaring in song at Craswall.

Miss Jesson reported a remarkable, and possibly unique, case of communal nesting of bluetits (*Parus coeruleus obscurus*) in May at Homme House. Two pairs successfully reared their broods in one box $(18\frac{1}{2} \text{ by 7 by } 6\frac{1}{2} \text{ inches})$ and at least 17 fledglings flew from its one small hole on 8th June.

Mr. P. W. Hinde found and ringed a young hawfinch (Coccothraustes c. coccothraustes), and saw another of the brood

on 11th June. The same observer visited Berrington heronry (Ardea c. cinerea) on 29th April and counted 28 nests which showed signs of being occupied.

MIGRANTS

Flocks of lapwing (Vanellus vanellus) and common gulls (Larus c. canus) were much in evidence after the floods which ushered in the year. Very few lapwings remained to nest, though several localities deserted since 1947 were reoccupied. The breeding status of this bird gives great cause for anxiety, and all are asked to co-operate in protection of the lapwing and its eggs. Small parties of white-fronted geese (Anser a. albifrons) were seen near the Lugg on 6th February. Small numbers of green sand-pipers (Tringa ochropus) were seen in all months except June. Goosanders (Mergus m. merganser) on their usual spring visit to the Wye appeared in larger numbers than usual in March and early April, 1949. Pintail (Anas a. acuta) also were fairly numerous.

Several flocks of siskins (Carduelis spinus) were seen in Lucton and Kington districts during the winter months (P. W. Hinde, R. H. Baillie).

There appears to be a continued increase in the numbers of pied flycatchers (Muscicapa h. hypoleuca) breeding in the county. Three cock birds were counted at Garnons Hill, and three at Monnington: two pairs bred at Moccas Park, and two pairs at Gatley Park (Miss Dunne), and Mr. R. H. Baillie records an increase in the Kington area.

The marsh warbler (Acrocephalus palustris) arrived on 24th May. Unfortunately, its nesting site, where three or four pairs have bred successfully for twelve years now, has been cleared and made uninhabitable for the marsh warbler in the interests of river flow and drainage. After much searching, marsh warblers were found breeding at another site; it is therefore to be hoped that the species is not lost to the county.

A pure white male cuckoo (Cuculus c. canorus) was seen in flight in Homme House park between 16th and 21st May. This albino was heard to "cuckoo" in flight. (Miss Jesson).

Major A. E. W. Salt reports wheatears (*Oenanthe oe. oenanthe*) on Herrock Hill on 7th May, presumably nesting, and nightingales (*Luscinia m. megarhyncha*) at Pudlestone for the second year in succession.

Mr. P. W. Hinde reports a late blackcap (Sylvia a. atricapilla) at Lucton on 1st November.

UNUSUAL VISITORS

A male black redstart (Phoenicurus ochrurus gibraltariensis) was seen at Hereford Cathedral on 4th, 5th and 6th January by

R. G. Campbell, and on 26th February by R. Bower; one was seen regularly in February at Much Birch by Mr. and Mrs. Williams—again an adult male. A cock bird again appeared in the Close on 30th October (R. Bower) and was seen there on various dates in November and December.

A great grey shrike (Lanius e. excubitor) was seen perching on hawthorn by the Lugg near Hereford and flying from tree to tree on 1st and 2nd April. It was observed closely at 20 yards by R. G. Campbell.

On 24th May a hoopoe (*Upupa e. epops*) was seen at Hampton Park, Hereford, by Mrs. Bentley-Taylor. The bird flew about the garden, and walked on the lawn. It appeared in neighbouring gardens during the next two days (Mrs. Franklin, Master and Miss Davies), but was not seen later.

Mr. F. C. Morgan reported hearing a corncrake (Crex crex) in upper Lugg meadow on 5th June. On 6th June two cock birds were craking in a small area, and the note was heard at intervals until the hay was cut. No trace of a nest could be found.

Dr. W. E. Kingdon reported that a gannet (Sula bassana) had been captured in Bircher lane, Leominster, on 6th June. It was placed on a pond there, but its dead body was found later, and dissected by Mr. P. W. Hinde who reports that no definite abnormality was to be found.

Commander H. R. James reported that an osprey (Pandion h. haliaetus) had haunted the large pool at Shobdon from 23rd till 29th September. He first saw it perched on a Turkey oak by the pool in company with four herons and a cormorant. It swooped down upon the water close to a flock of mallard which remained quite undisturbed, and it was plain that its prey were the roach which infest this lake. It was not seen at Shobdon on the 30th, but on that date an osprey was reported to be at Cabalva, Whitney-on-Wye (Hon. Mrs. S. Guest) and was seen there daily until mid October. On 16th October, Col. M. Brown saw an osprey at Whitchurch-on-Wye, 27 miles south of Whitney as the crow flies. It is presumed that all these reports refer to the same bird.

In mid October, three crossbills (Loxia curvirostra) were seen in conifers at Garnstone (Mr. Verdin).

An adult waxwing (Bombycilla g. garrulus) was seen in the garden at Bridge House, Leintwardine, for two hours on 28th November by Dr. A. A. W. Beach and Canon Cooke. It was feeding on cotoneaster and berberis berries. Several parties of waxwings were seen at Lyonshall among fruit trees on 14th December. Some were feeding voraciously on some unpicked Derby apples (Dr. B. Levy).

THE GEOLOGY OF GARNONS HILL AND SOME OBSERVATIONS ON THE FORMATION OF THE DOWNTONIAN ROCKS OF HEREFORDSHIRE.

By The Rev. B. B. Clarke, M.A., M.Sc.

(Read 26th January, 1950.)

It is of interest to record that the fossil fish *Traquairaspis* (*Phialaspis*) symondsi, which has proved important in placing the rocks at Garnons Hill in the general succession of the Old Red Sandstone of Herefordshire, was named after the Reverend W. S. Symonds, who was one of the founders of the Woolhope Club almost a hundred years ago, and president in 1854.

The Old Red Sandstone of Herefordshire was mapped by the Geological Survey in the old series of one inch maps. These were published between 1844 and 1855. No attempt was made at a subdivision of this great thickness of rocks, although there are over 3,000 feet of them. Bands of cornstone were, however, picked out in places. The whole was coloured dark red with the cornstone bands in grey. The mapping for the new series has not so far reached Herefordshire, so that the old series is all we have as official maps.

The Old Red Sandstone is proving one of the most difficult groups of rocks to classify in British geology. There are a number of reasons for this. In contrast to the Silurian rocks below, where there is a steady rhythmic alternation of shale followed by limestone, each of considerable thickness, in the Old Red Sandstone the lithological changes are rapid. A massive sandstone band may be only 20 feet thick, while a limestone band may be as little as 20 inches and a shale band only one or two inches. There is also a great deal of lateral variation. In the Silurian, a thick band like the Wenlock Limestone persists over a very wide area, but in the overlying Old Red Sandstone, a band of massive sandstone may thin out, or even disappear altogether, only a short distance away. This creates great difficulties in trying to correlate the succession from one place to another. Perhaps the greatest difficulty of all, however, is the scarcity of fossils. Compared with the Silurian, the Old Red Sandstone is extremely barren. There are not many quarries in the Silurian rocks where some fossils cannot be found in a few minutes. In the Old Red Sandstone one may search for days or even years and not find anything. There is a further complication in that the bands that contain fossils do not persist laterally and often about 20 feet is the limit. The fossils are not so much in bands which might make firm stratigraphical horizons but rather in lenses.

In spite of these difficulties, and two others to be mentioned later, a general classification of the Old Red Sandstone of Herefordshire and the Black Mountains is possible, though mainly only lithological in character. It is as follows:

Farlovian— Quartz Conglomerate—in the higher parts of the Black Mountains.

Breconian— Brownstones—making the greater part of the Black Mountain mass.

Senni Beds.

Dittonian— red sandstones and marls.

Downtonian—red marls with thin sandstones and the Psammosteus limestone near the top.

The base of the Downtonian is apparently conformable to the highest bed of the Ludlovian, and this lack of an unconformity has led to doubts about the upward extent of the Silurian system. It is yet a further difficulty therefore with the geology of the Old Red Sandstone of this area that it is at present uncertain how much of the succession is Silurian and how much Devonian. R. W. Pocock and T. H. Whitehead have put the whole of the Downtonian into the Silurian system (1). W. W. King affirms that there is no stratigraphical break at the top of the Downtonian but there is, at least in Shropshire, at the top of the overlying Dittonian (2). L. D. Stamp has presented the case for retaining the top of the Ludlovian as the upward limit of the Silurian system (3 and 4). In his view the base of the Ludlow bone bed is the upper limit of the Ludlovian and of the Silurian system. The most recent contribution to this problem has been made by E. I. White, who reaffirms that the Ludlow bone bed is the ideal level to limit the Silurian system, and like L. D. Stamp he also suggests making this the beginning of the Devonian system (5). This classification is adopted in this paper.

It is with the uppermost beds of the Downtonian and the lowest beds of the Dittonian that we are concerned at Garnons Hill. The whole of these divisions is thought to comprise about 2,000 feet of rocks so that it is vital to have some classification in spite of all the difficulties mentioned, and W. W. King has produced such a classification (2), based mainly on lithology and this is generally adopted. It is given below in full as it will be necessary to place the succession of beds at Garnons Hill in the general sequence. His scheme is to divide the Downtonian into ten divisions denoted by an Arabic numeral preceded by the Roman

numeral I. The Dittonian he divides into four divisions denoted similarly but preceded by the Roman numeral II.

II Dittonian-750 to 800 feet.

4. marls and thin sandstones	200-250 fee
3. marls, cornstones and sandstones	150 fee
2. red and green marls, thin sandstones and corn-	
stones	370 fee
1. Cephalaspis sandstone with cornstone	20-30 fee

I Downtonian-2,100 to 2,400 feet.

	marls with purple and green sandstones Eurypterid sandstones in green and red marls				
	Psammosteus Limestones (1 inch to 20 feet) calcareous sandstones in green and red in	and	ţ.O	100	1666
	carcareous sandstones in green and red in		to	150	feet
-			w	100	reet
1.	calcareous light purple and green sandstones limey concretions in distinctive bright				
	and some green marls	180	to	300	feet
6.	Ischnacanthus sandstones and cornstones in	red			
	and green marls			90	feet
5.	Deep purple and green marls	400	to	560	feet
	Holdgate coarse sandstone	13	5 to	30	feet
	Deep purple marls and thin purple sandstone	S			
			to	370	feet

3. Deep purple marls and thin purple sandstones
315 to 370 feet
2. Thyestes (Auchenaspis) marls and sandstones
400 feet
1. Temeside group
100 to 200 feet

The horizon at Garnons Hill can be placed with precision, as will be shown later, in I.8. While the lithological succession suggested by W. W. King is generally accepted, his placing of the top of the Downtonian is not. Thus while he puts the Psammosteus Limestone Group, with which we are mainly concerned at Garnons Hill, in the Downtonian, E. H. Edmunds and K. P. Oakley make the Psammosteus Limestone Group the base of the Dittonian (6), p. 26. E. I. White, in his most recent paper (1950) has suggested a system of zoning by fossils this part of the Old Red Sandstone and in this the base of the Dittonian comes near the top of I.8, i.e. with the zone of Traquairaspis (Phialaspis) symondsi at the top of the Downtonian and that of Pteraspis (Simopteraspis) leathensis at the base of the Dittonian (7), p. 70.

Let me now describe the hill itself and the rocks that make it. Garnons Hill is structurally an outlier. Together with Wormsley Hill and Dinmore Hill it is one of a little group of detached portions of the Black Mountain mass that have been left standing in isolation by denudation. It is 763 feet O.D. in height, and 400 feet O.D. at the base. There are thus some 363 feet of rock exposed in the hill, but as the beds are dipping their actual thickness is less than this. Geographically it lies between Byford, the village at the foot of the hill on the south side, Bishopstone on the east side, the little hamlet of Shetton on the north side and Mansell Gamage, which is up on the hill itself on the west side (Fig. 5). The strike

of the rocks in general is N.W. to S.E. and the hill is elongated along this axis. There is the same strike and the same direction of elongation in the Woolhope Dome some 12 miles to the S.E. The rocks of which the hill is made are bands of sandstone of varying shades from pink to pale green, and from dark purple to brown. The sandstones are sometimes massive and extremely hard, and sometimes soft and flaggy. Some of these split so easily as to form a tilestone. There are bands of shale, usually finely laminated, purple in colour and often micaceous. There are thick bands of marl of a shade of deep purple. One of these has isolated limestone nodules in it. There are four bands of limestone, sometimes nodular and loose in texture, and sometimes hard and massive. These bands follow one another in rapid succession. A band may be as much as 20 feet in thickness, or it may be less than an inch. Ideas as to the conditions under which these rocks and other parts of the Old Red Sandstone of Herefordshire were formed have changed in recent years. The old theory was that they were formed in an enclosed lake under desert conditions. Throughout Silurian times there was a deep trough in north-west Wales, and in this deep sea the Silurian shales of those parts were laid down. At the edge of this deep trough was a continental shelf on which the Valentian. Wenlockian and Ludlovian rocks of Herefordshire and Shropshire were formed in much shallower water. The coastline lay in Ludlovian times well to the east of this county. At the end of the Ludlovian the Caledonian Mountain Building Period took place and high mountains were thrown up in north-west Wales where before had been deep sea. There was still sea, however, over Herefordshire and to the south over Devon and Cornwall, but a low ridge of land was thought to extend from south Wales in an east-to-west direction, cutting off completely part of this sea and forming what was called the Welsh Lake. This inland lake was thought to cover Herefordshire and much of the neighbouring counties. Recognition of the very rapid changes in lithology in the rocks that follow the Ludlovian both upwards and laterally, and the presence of the fossils in lenses rather than in persistent bands, has led to a gradual departure from the idea that these rocks were formed in the still waters of an inland sea of vast extent in favour of the more turbulent conditions of the estuary of some great river. Thus in 1934 W. W. King described the Downtonian rocks as being "fine sea-borne sediments of a mud belt, which were drifted outwards for long distances on a continental shelf into waters of a restricted sea of moderate depth deeper and more open than in Dittonian times" (2). In 1946 E. I. White was critical of the ' restricted sea' mentioned above and speaking of the way the fossils occur in pockets he says: "Fossil localities are small in geographical extent and quickly pass laterally into barren rocks." It is his view that the fishes which are the chief fossils of these rocks were not the inhabitants of the places where they are now found but

were carried thither by currents. "They are freshwater fishes carried by floodwater into brackish water and so killed. Although the conditions were not truly marine, they were estuarine or deltaic and the area was fed by rivers in which the fishes lived " (8). The formation of the Old Red Sandstone of Herefordshire and the Welsh border under estuarine conditions rather than in an enclosed inland lake is stressed by Prof. L. J. Wills in The Palæogeography of the Midlands. He says that what the peculiar conditions were that led to the first appearance of the ostracoderms is not fully known but " one feature was almost certainly strong current action in the shallowing waters of an estuary or delta lagoon, into which dead fishes and ostracoderms were washed from time to time" (9), p. 25. E. H. Edmunds and K. P. Oakley have expressed the modern theory very well in a block diagram in The Central England District (6), p. 23. The only suggestion I would make about this is that the Downtonian rocks are so calcareous that I feel the river that fed the estuary must have flowed over very considerable tracts of exposed Aymestry, Wenlock and Woolhope Limestone in the course of its journey to the sea. At Garnons Hill the red marls are calcareous, some of the sandstones are calcareous, and there are four bands of arenaceous and argillaceous limestone, as well as three bands of fragmental limestone or cornstone. I would therefore suggest the river flowing into the estuary which covered Herefordshire either rose further east than the mountains of north-west Wales, or else it flowed to the sea through country further east than this diagram would

There are a few features in the rocks at Garnons Hill which add to our knowledge of the conditions under which the Old Red Sandstone was laid down and which lend support to the modern theory. W. W. King in 1934 (2) said that no sun cracks, rain prints or ripple marks had been found in the Downtonian. If we visualise a great estuary with long low sandbanks and mudflats, sometimes covered and sometimes dry, interspersed with distributaries with fast moving currents, there should be all these, and there should be also current bedding in the sandstones. At Garnons Hill several of the sandstones exhibit current bedding in a very marked degree and I have also seen ripple marks. I have not seen sun cracks at Garnons Hill. I have, however, found some beautiful sun cracks in the rocks at the base of Brobury Scar, some $2\frac{1}{2}$ miles away.

ECONOMIC GEOLOGY.

During last century the rocks at Garnons Hill were quarried extensively. Little or no quarrying has, however, been done in the present century. The whole hill is thickly wooded and the

quarries have largely become overgrown, making their study difficult. The presence of a carpet of leaves makes the smaller exposures, usually so helpful, very hard to find. Most of the old quarries are gradually being re-afforested. There is little doubt that the geology of the hill would have been easier to study 50 or 70 years ago than it is today.

The purposes for which quarrying was done on the hill are these:

- (1) Building Stone.—Some of the sandstone bands are hard grits of most delightful shades of pink and pale green, and make not only very durable but very handsome building stones. Some of the softer stones have also been used extensively as building stones locally.
- (2) Marl.—While there are several quarries where building stone was extracted, there are hundreds of old marl pits scattered over the hill. These are quite small excavations about 20 feet deep. The marl, being highly calcareous, is rich in digested lime, and so forms an excellent dressing for agricultural land.
- (3) Limestone.—This was quarried for burning to make lime, and also as a road metal. Most of the limestone on the hill is very hard, which made it very suitable for road repairing. It was used extensively for the road from Hereford to Bredwardine which passes the foot of Garnons Hill. I am indebted to Sir Richard Cotterell, Bart., for the loan of some cuttings from the Hereford Times of 1853, which describe an application from the surveyor to the Hereford Turnpike Trust for the continued extraction of limestone from two quarries on the hill for the purpose of road repairing. The surveyor pointed out that he wished to continue to take limestone from the Steps quarry and from Mansell quarry, beside each of which was a lime-kiln belonging to the estate. The alternative was to use gravel from Bridge Sollers dingle, but that was nothing like so good for his purpose. After somewhat lengthy proceedings the application was granted.
- (4) Roofing Tiles.—Some of the sandstones on the hill split naturally into tiles about an inch or a little more in thickness and these were once quarried extensively for roofing. Most of the older buildings in the neighbourhood are still roofed with these tiles, e.g. Mansell Gamage church and Byford Court, and originally probably all were. The disadvantage is that they are extremely heavy and need very substantial structure beneath to carry them.
- (5) Water.—The bands of marl make impervious layers while several of the sandstones are permeable and make excellent water bearers. One of the limestone bands is so solid as to be impervious.

This is followed by a soft flaggy sandstone which is permeable and there is a line of springs along the junction, which runs along the foot of the hill on the N.E. side. The water from the hill is of excellent quality with the one disadvantage that it is extremely hard, having flowed through so much calcareous material.

There are small deposits of calcareous tufa on the hill, but nowhere extensive enough to make quarrying worth while. Schiller is common on the rock faces and where springs emerge the water will coat twigs and pebbles thickly with limestone for some distance downstream. When endeavouring to track a limestone band it is tiresome to break open large numbers of these pebbles which outwardly appear to be limestone but in fact are sandstone pebbles coated with limestone in this way.

DETAILED LITHOLOGICAL SUCCESSION

R. W. Pocock in the discussion which followed E. I. White's paper in 1946 (8), said that "the great need at the moment appears to be the accurate measurement and recording of type sections or traverses together with careful collecting from every fossil horizon". In view of this need I have, at Garnons Hill, accurately measured the rocks and prepared wherever possible careful sections of all the main exposures and these will now be described. Most of the quarries have no official names, and those I have given them are purely to enable their sites to be found again quickly.

1.— GARNONS ROCK GARDEN QUARRY.

One hundred and sixty yards behind Garnons House, in a N.E. direction, is an old rock garden which was made in a quarry. The entrance is now entirely overgrown with rhododendrons and not easily seen. Some 34 feet of rock are exposed, and the dip is 9 degrees S.W. An accurate section of the rocks in this quarry is given in Fig. 1. The lithological terms explain themselves, though the limestone band needs some comment. It is a band of argillaceous limestone 20 inches in thickness. The colour is dark purplish red, streaked with grey. It is extremely hard and not easily broken. When fresh the rock is seen to contain abundant plates of crystalline calcite from microscopic size to 14mm. across.

2.—GARNONS FOOTBRIDGE QUARRY.

Immediately behind Garnons House is a roadway across which there is a footbridge leading into a quarry. The rocks have the same dip as in the Rock Garden quarry 9 degrees to S.W. and the two lie close together in such a way that the base of the rocks in

¹ Reroofed with new tiles 1950.

¹ The sites of the quarries are indicated by the figures in circles on the map (Fig. 5). The same figures are similarly indicated on the sections.

the Rock Garden quarry is approximately the top of those in the Footbridge quarry. There are some 40 feet of rock exposed in this quarry and an accurate section of these is given also in Fig. 1. We have thus accurate sections of some 70 feet of rock at this point with the provision that the thickness of the purple marl, put at 10 feet, is only approximate. It is in this quarry where current bedding is so clearly seen in the sandstone. There is also a considerable deposit of calcareous tufa in this quarry below the green shale.

3.—Mansell Great Quarry.

Three hundred and thirty yards S.E. of Mansell Gamage Church is the largest quarry on the hill.

In the entrance to this quarry is a block of sandstone exhibiting ripple marks. The quarry extends a long way laterally and it has been possible to make an accurate section of each end. These are given in Fig. 2. Vegetation makes it impossible to be certain. as lining up cannot be done with clear vision, but it would seem that the section at the south end of the quarry follows on and is above that at the north end. The hard purple marl mottled with bright green at the top dries out into a crumbly mass of small angular fragments showing how the limestone, which has in it dark red angular masses, could have been formed secondarily. This would be either by percolation downwards of water rich in carbonate of lime, or by water similarly charged brought upwards by capillarity. The limestone band here is 3 feet thick. It is bright red streaked with green. When fresh plates of calcite flash in the light. It is also veined with calcite. Unlike the limestone in the Rock Garden Quarry this is nodular and much softer. The nodules are interspersed with marl. Weathering wears away the marl, leaving the limestone nodules standing out. The nodules are rough rounded cubes up to 3 inches across. The origin of these argillaceous limestones in the Old Red Sandstone of the Welsh border is a little obscure though it is generally agreed that they are secondary deposits. G. W. Tyrrell says that "in tropical countries today where a rainy season is followed by a long dry season, ground water saturated with calcium carbonate is brought up to the surface by capillarity during the desiccation period, and the carbonate is deposited just below the soil as a hard layer which is often nodular and rich in iron. This is called kunkar in India and the cornstones of the Old Red Sandstone are probably fossil representatives of kunkar." (10). There is a complication in nomenclature here. for some writers use the word cornstone, as G. W. Tyrrell does, in a wide sense for all the hard calcareous bands in this part of the Old Red Sandstone, whereas others use it only in a restricted sense for the bands which are made up of fragments of limestone cemented together with limestone to make a solid rock. This vagueness in

nomenclature goes back as far as Murchison's day. In his Siluria published in 1854, he speaks of the red and green earthy limestones called "cornstones". His use of inverted commas suggests he was not happy about this nomenclature then. It seems to me best to use the word cornstone only for the fragmental limestones and the terms argillaceous or arenaceous limestones for the others. In any case it is most desirable to have distinctive terms, as the two rocks are quite different in appearance and I think also in origin. It is of importance to realise that, if the origin of the argillaceous limestones is as Tyrrell suggests, they must have been formed just below the surface of mudbanks temporarily left above the surface of the water in the estuary and so exposed to hot sun. As these mudbanks may have been expected to shift their position, it follows that these bands may be expected to thin out and that it may not be possible to correlate them over a wide area.

4.—Offa's Dyke Quarry.

One hundred and thirty yards N.N.W. of the Steps, on the line of Offa's Dyke, there is a small quarry where limestone is exposed, which was formerly quarried for road metal. Above the limestone is a red and green mottled marl with isolated calcareous concretions. There are 5 feet of limestone below the marl and the base is not seen. A section is given in Fig. 3. The limestone face has weathered into nodules of hard limestone packed tightly together. The spaces between are filled with white calcareous matter with fragments of shale. The lithological character of the limestone is variable. It is sometimes a hard dark grey limestone with minute crystals of calcite. More usually it is a greyish white rock with angular red fragments. When it weathers, the red fragments wear away more easily than the white parts, which stand out, giving a honeycomb effect. The white rock is very hard. Although it gives a good calcareous reaction with acid, it evidently has a high silica content. Occasionally there are large crystals of calcite filling small cavities. Although in places the grey limestone looks like a normal limestone, the appearance of the bulk of the rock shows that it is a secondary limestone similar in origin to the thinner bands already described. The dip of the rocks in this quarry is 2 degrees to N.W. There is a fault running along the line of the dyke which can be seen in the quarry. Evidently the makers of this historic feature were not averse to using a natural fracture which would help them with their digging when they found one.

The presence of isolated calcareous concretions in the marl above the limestone suggests that filtration of calcareous water either upwards or downwards is not the whole explanation of the argillaceous limestone but that there is also some process of growth involved, such as the way a large crystal will grow if suspended in a saturated solution. Possibly some minute fragment of solid

calcareous matter starts off the growth process. The nodular formation of most of the limestone would suggest this also.

5.—THE STEPS QUARRY

Two hundred yards to the N.W. of the Steps is a rather larger quarry with the same limestone well exposed. Here there are over 7 feet of it as will be seen from the section in Fig. 3. Where water has emerged from the quarry face there is a considerable deposit of calcareous tufa. This limestone thins out northwards, and it is in this quarry that it is seen at its maximum thickness; indeed, this is the thickest development of any of the limestone bands on the hill.

6.—The House in the Woods Quarry

Immediately below the keeper's cottage, called locally the House in the Woods, is a quarry where some 14 feet of massive sandstone are exposed, and from which much useful building stone has been quarried. The dip here is 5 degrees N.N.E. Immediately above the sandstone is a limestone band. There are 10 inches of argillaceous limestone below and 10 inches of softer arenaceous limestone above. The two are separated by 2 inches of purple shale. Below the sandstone is a green cornstone; 20 inches of this are exposed and the base is not seen. This rock is quite different in appearance from the argillaceous limestones already described. It is highly calcareous, extremely hard to break and quite massive. It has the appearance of rolled limestone fragments cemented together with limestone to form an extremely solid rock, and yet one where the original fragmental nature is easily seen when the rock is freshly broken. Unlike the argillaceous limestones, the cornstones are considered to be limestones of mechanical origin. They seem to have been formed where large masses of calcareous rocks were undergoing denudation, p. 151 (11). I am inclined to make the tentative suggestion that these two types of limestone were formed in periods of climatic extremes. My suggestion is that the argillaceous limestones were formed during prolonged arid periods when very little water was fed into the estuary and large tracts of mud were left exposed to the hot sun, and that the cornstones were formed in periods of excessive rainfall when full rivers brought down masses of solid material from the denudation of areas where limestone was exposed. An accurate section of this quarry is given in Fig. 3.

7.—GARNONS HILLTOP QUARRY.

Nearly a quarter of a mile N.E. of Swiss Cottage is a large quarry, now very much overgrown, where some of the highest beds on the hill are to be seen. A section is given in Fig. 4. The hard, pink, massive sandstone has been quarried for building stone. The

particles of quartz are well washed and the pink colour is a most delicate shade. This together with its hardness makes it a most beautiful building stone, and there is little doubt that the pink sandstone used in parts of Byford church came from this quarry. At the base is a cornstone consisting of limestone fragments but with small patches of white chalky material, which give the rock a speckled appearance. The dip of the rocks here is 5 degrees N.E.

While these seven quarries give the only considerable sections available of the rocks which make up the hill, there are innumerable marl pits along the bands of purple marl. There is also a useful stream course at the S.E. end of the hill running down into Caroline coppice. This stream course is often dry, but the stream runs copiously after rain and has etched out a cutting often 3 feet deep and about 600 yards long. The wood has been cleared on either side of the stream course, giving a clearing. At 500 feet O.D. is a band of arenaceous limestone. It is of much coarser texture than the argillaceous limestones already described but seems to have been formed in the same way. Whereas in the argillaceous limestones the water charged with dissolved calcite percolated through baked marl, in this case it percolated through sand.

At 600 feet O.D. is a band of argillaceous limestone, green almost white in colour blotched occasionally with red. Beds of sandstone lie below this limestone, while above it is a thick bed of purple marl. At about 650 feet O.D. is a band of cornstone passing upwards into a brown sandstone.

The map in Fig. 5 gives the distribution of the rock types on the hill and also the dips. I submit this map somewhat tentatively as the overgrown nature of the ground makes mapping difficult except in places. I believe, however, it does express in general a true picture. The section shows the structure of the hill and the side facing Byford is seen to be an escarpment. From the dips it would appear that the hill is a part of an anticlinal flexure which pitches to the S.E., the southern half having been denuded away. It will be seen that the Psammosteus Limestone Group here consists of four bands of limestone, the lowest being the one to attain the greatest thickness, which it does at the south end of the hill. The thickness of rocks included within these four limestone bands is some 250 feet. The second band is 80 feet above the first, the third 95 feet higher and the fourth 75 feet higher still. This is a much greater thickness than this limestone group usually attains. There are also three cornstone bands on the hill, one below the lowest limestone and the other two above the highest.

PALÆONTOLOGY

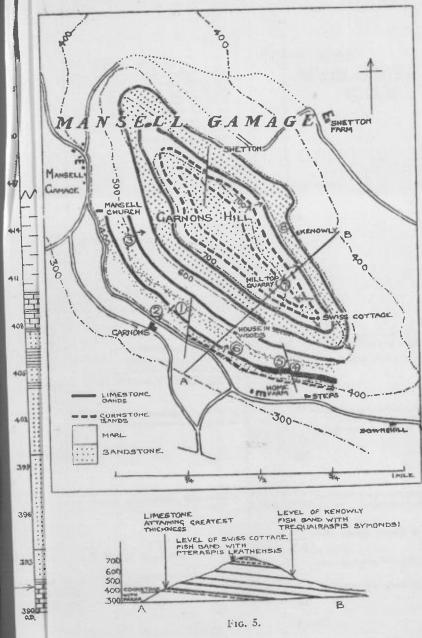
There are four levels in the succession of rocks at Garnons Hill in which fossils have been found. The site which has yielded the

fullest suite of fossils is at Kenowly, near the foot of the N.E. side of the hill (Fig. 5). Forty yards N.W. of the house at Kenowly, along the path leading to Shetton, is a spring which emerges where a soft flaggy sandstone 61 feet thick rests on the hard band of arenaceous limestone. The top of this sandstone is marked by a thin band of bright green sandstone } inch thick. Above this are three inches of soft, dark red micaceous sandstone and it is in this that the fossils were found (Fig. 4). They are mostly small broken fragments of the plates and broken spines of Acanthodian fishes. These are the earliest fishes. They had no backbone or internal skeleton. They had either a solid bony shield within which was the creature's head and other working parts, or a shield made up of a number of bony plates held together with chitinous material. Such a skin was heavily protected but at the same time gave freedom of movement which the fishes with solid shields cannot have had. "Armour plated fishes" is sometimes the description given of these earliest fishes. The fossils so far obtained from this site are:

Traquairaspis (Phialaspis) symondsi (4 specimens). Ischnacanthus (3 specimens). Acanthodian spines (3 specimens). Tesseraspis tessellata (1 specimen). Oniscolepis (1 specimen). Pachytheca (3 specimens).

The last is said to be a plant. Some of these fossils are shown in Fig. 6. 1 is part of a bony plate of Traquairaspis (Phialaspis) symondsi.1 It looks like a small white smooth piece of bone. 1A shows the same after etching with acid, which revealed the surface canals, or blood vessels, beneath the surface of the bone. These are seen to be tubes with constrictions which make the unconstricted parts appear sack-like. The sacks are quite large in the middle of the plate but much smaller at the edge. This is probably a protection, for the most vulnerable part of the fish would be where two plates join. It would not bleed so much when damaged, having only minute blood vessels at its weakest points. The walls of the canals were calcified and dissolved away in the acid so that what is seen is the sandy filling of the canals. 1B is a magnified view of the same plate with some of the surface canals brushed away to reveal the surface ornament on the underside of the plate characteristic of Traquairaspis (Phialaspis) symondsi. This ostracoderm has been described by Prof. L. J. Wills (12) and I am most grateful to him for initiating me into the process of etching these plates with acid and showing me the ornamentation which is characteristic of Traquairaspis (Phialaspis) symondsi. 2 is another specimen and 2A a magnified view of the

¹ Phialaspis symondsi is now re-named Traquairaspis (Phialaspis) symondsi (5).



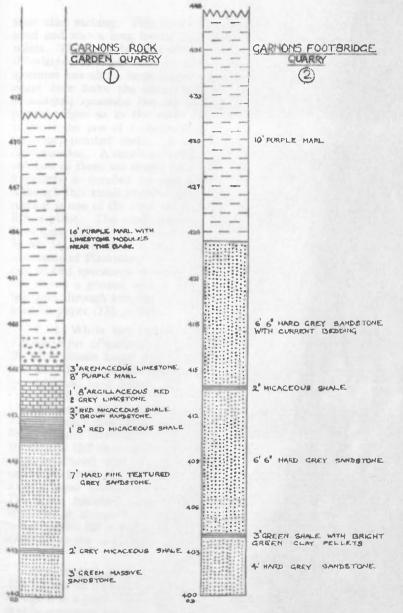
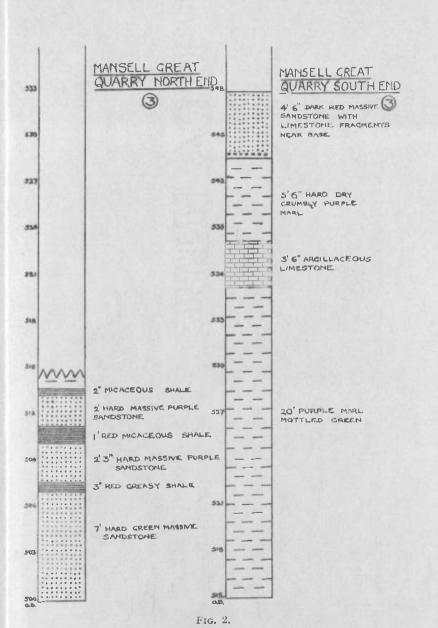
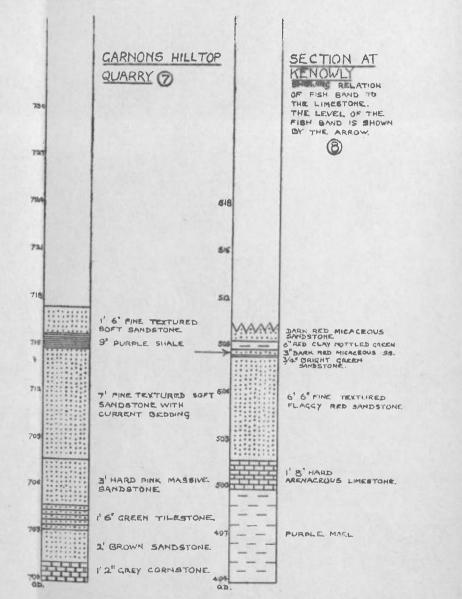


Fig. 1.



HOUSE IN WOODS STEPS QUARRY QUARRY THE LEVEL OF THE PLANT REMAINS IS SHOWN BY THE www 7' 6" RED MARL 6' PURPLE HARL T GREEN SHALE
10" SOFT AREMAGEOUS
LIMESTONE
2" PURPLE SHALE
10" AREILLACEOUS
LIMESTONE 7 6 LIMESTONE 2" PURPLE SHALE 13" SOFT PURPLE 1' 2" GREASY PURPLE SHALE 10" HARD MASSIVE PURPLE 425 MENTED SANDSTONE D.D. 4 6 HARD MASSIVE PURPLE SMIDSTONE OFFAS DYKE QUARRY 6' HARD MASSIVE PURPLE I' B" RED CRUMBLY & GREY SANDSTONE 131 0000 MARL MOTTLED GREEN WITH BAND OF CALC. CONCRETIONS 1 8 BRIWN SANDSTONE 428 5 LIMESTONE 2" BRIGHT GREEN SHALE 1' 8" GREEN CORNSTONE 42.5 mm Fig. 3.



LIMESTONE
DAMPS

CORNSTONE
GARDS

MARL.
SANDSTONE

LIMESTONE
ATTRIBUNG GREATEST
THICKNESS
LEVEL OF SWISS COTTAGE.
FISH BAND WITH
PTERASPIS LEATHENSIS

B

LIMESTONE
ATTRIBUNG
FISH BAND WITH
PTERASPIS LEATHENSIS

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LOVEL OF KENOWLY
FISH BAND WITH
PTERASPIS LEATHENSIS

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LOVEL OF KENOWLY
FISH BAND WITH
PTERASPIS LEATHENSIS

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LOVEL OF

GAMAGE

CAMACE

Fig. 4.

same after etching. This shows the characteristic crenulate ornament and also a long lateral line canal with junctions at various points. This is probably a sensory organ. 3 is also Traquairaspis (Phialaspis) symondsi and 3A shows the same after etching. This specimen has also a large lateral canal running right across. The ridges here have the characteristic ornament of Traquairaspis (Phialaspis) symondsi but are arranged in diamonds rather than parallel ridges as in the other two specimens. 4 is part of the inside of the jaw of Ischnacanthus. At the top are seen some of the sharp-pointed teeth. 5 and 6 are tuberculated spines of Ischnacanthus. A number of ribbed Acanthodian spines were found and two of these are shown in 7 and 8. In addition to these fish fragments a number of specimens of Pachytheca were found. Although this small round object is the commonest fossil in these rocks it is one of the least understood. It is generally agreed that it is a plant. The small spherical object which is found in fossil form may well be all there was of it, and it has been suggested, by W. H. Lang, that it was a free-rolling alga (13). One of the specimens of Pachytheca has a neat small round hole in it. It is rare to find specimens showing this but W. H. Lang describes one and shows a ground section which illustrates the way the small hole goes through into the cortex. 10A is a drawing of this section from his paper (13), p. 544.

E. I. White has collected together all the localities where Traquairaspis (Phialaspis) has so far been found and set down the other fossils found with it at the various horizons and localities (5). There are 6 localities where Traquairaspis (Phialaspis) symondsi had been found, and 3 of them are in Herefordshire, at Cusop, Tedstone Wafer, and Westhope. It is of value to be able to add Garnons Hill as a new locality, especially as it is about halfway between Cusop and Westhope. There is a rather larger and different suite associated with Traquairaspis (Phialaspis) symondsi at Garnons Hill than either at Cusop or Westhope. At the former it is associated with Corvaspis kingi and Anglaspis macculoughi, and at the latter with Pteraspis. It is E. I. White's conclusion that Traquairaspis (Phialaspis) symondsi is limited to I.8 and that Tesseraspis tessellata ranges from I.6 to I.8. As both of these are found at Kenowly on Garnons Hill this level can be tied down to I.8. In his latest paper E. I. White has suggested Traquairaspis symondsi as the zone fossil of the highest zone of the Downtonian rocks.

The three cornstone bands have also yielded some fossils. The highest in Hilltop quarry has only so far yielded Pachytheca though it is a particularly fine specimen 4.5 mm. in diameter. The middle cornstone band, at a point 200 yards N.E. of Swiss Cottage, has yielded one specimen of Pteraspis (Simopteraspis) leathensis. This is important, as E. I. White has recently suggested using this

as a zone fossil to mark the base of the Dittonian. Its range in King's notation is from near the top of 1.8 to near the top of 1.9 (7). There were four specimens of Pachytheca, three Acanthodian spines, one rather well-preserved finely-ribbed spine which may be the medial spine of Pteraspis and one specimen showing part of the shield of a Cephalaspia. It is a blunt-nosed shield 1½ inches in length and 1½ inches in breadth. There are some fragments of bone or bony plate still attached which show very fine ribbing when highly magnified. A small part of the cornua is visible. Acanthaspis also has been found in this cornstone.

The lowest cornstone which occurs below the lowest limestone has also yielded valuable material. In the House in the Woods quarry this cornstone has yielded in addition to some fish fragments identifiable plant fragments. The Downtonian rocks are palæontologically important as in them we see the beginnings of plant life. The species so far found have been described by W. H. Lang (13). There are not many of them. It is not till we get up into the Senni beds that any number of species occur. The suite from this cornstone is:

Parka.
Pachytheca.
Cf. Prototaxites and/or Nematothallus.
Acanthodian.

The first three are plants, the last a fish. The specimen of Parka consists of carbonised spore masses. There are black patches which are identified as Prototaxites or Nematothallus or both. The specimens of Pachytheca are as usual well preserved. Apart from this the fragmental woody material which is prolific in this cornstone is not well preserved. It is clearly bits of driftwood, and other light fragments which have been washed down into the estuary. A small round tuberculate object is identified as the whorl of the median spiral of an Acanthodian. It is rare to find plant remains and fish remains together above I.2. Although this cornstone is the only level where identifiable plants have been found, some much-worn impressions were found in a yellow tilestone above Shetton. Another yellow tilestone near the top of the hill has in it numerous blobs of hæmatised material, which may have been plants, though there is no visible structure in them.

SUMMARY

The rocks at Garnons Hill consist of the Psammosteus Limestone Group towards the top of the Downtonian, and at least the Pteraspis (Simopteraspis) leathensis zone at the base of the Dittonian. The Psammosteus Limestone Group here consists of four bands of argillaceous and arenaceous secondary limestone separated by bands of marl, sandstone and tilestone. The lowest

FOSSILS FROM KENOWLY CARNONS HILL HEREFORDSHIRE

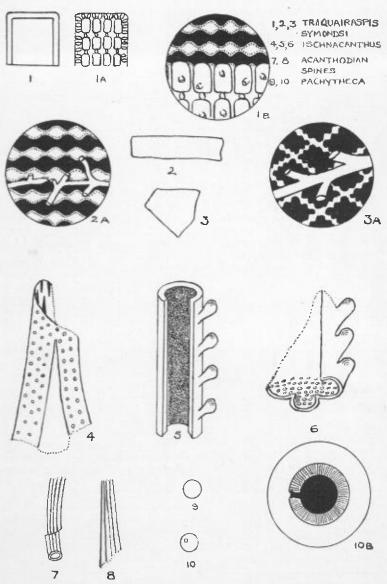


Fig. 6. The specimens enclosed in circles are enlarged

is the one to attain the greatest thickness and the fourth is 250 feet above it, making the thickness here greater than the 150 feet originally suggested as the maximum for this group. There are three cornstone bands of fragmental limestone, two above the highest secondary limestone and one below the lowest.

Three important fossil horizons are described and their exact position indicated. The highest is a cornstone band near Swiss Cottage on the N.E. side of the hill with Pteraspis (Simopteraspis) leathensis marking the base of the Dittonian in E. I. White's new classification. Also on the N.E. side of the hill and 150 feet below is another horizon at Kenowly 7 feet above the third limestone with Traquairaspis (Phialaspis) symondsi and other fishes indicating that zone and I.8 in King's notation. The third is the lowest cornstone band in the House in the Woods quarry on the S.W. side of the hill below the lowest limestone containing Parka and other plants and also some fish remains.

May I, in conclusion, express my thanks to Mr. F. C. Morgan, F.S.A., who has made the slides of my rather intricate diagrams; Prof. L. J. Wills, M.A., Sc.D., F.G.S., Dr. E. I. White, D.Sc., F.G.S., and Mr. W. N. Croft, M.A., who have helped me tremendously with the identification of the fishes and plants; and Sir Richard Cotterell, Bart., who has very kindly allowed me to go all over the Garnons Estate to do this work.

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NOTES ON BRONZE AGE SETTLEMENTS ON ABBEY FARM, CRASSWALL.

By R. S. GAVIN ROBINSON.

(Read 23rd March, 1950.)

On 28th November, 1946, I read a paper to the Club recording Neolithic and Bronze Age occupation sites on Cefn Hill; this paper is to inform the Club of recent discoveries on land, and therefore dove-tailing into, and extending, my previous paper. Nothing has been found on the Abbey Farm which clashes with theories based on the Cefn Hill finds, but from the recent finds we are able considerably to extend our knowledge of Neolithic and Bronze Age man, particularly the latter, and I think there is every possibility of still further identifications of Bronze Age sites at Crasswall, which will add a very useful page to Herefordshire archæology. (See map.)

My attention was first drawn to the Abbey Farm by Mr. Eric Lewis of Vowchurch who was cultivating land belonging to Mr. James Price of the Abbey Farm, Crasswall. Mr. Price has very kindly lent all the finds to the Woolhope Club, and they are now exhibited in the Museum, being of great interest to those investigating early man in the county, as well as to the general public. Mr. Lewis's first find was a large scraper, and after I had explained what it was, he proceeded to collect anything unusual that he saw when ploughing at Crasswall, and one of Mr. Price's workmen picked up many more. The ground where these flints were found had never been ploughed—in the 1886 and 1903 Surveys it is shown with a number of trees on it, and it is probably part of the original Park Wood.

I visited the site with Mr. Lewis, and we found a recently ploughed area—marked "A" on the map, where there were a large number of flint flakes, scrapers and chips on the surface, in an area of say one quarter of an acre, adjoining a stream which is one of the sources of the Hondow and Monnow.

In addition to the flints we also found stone rubbers or hones. It is obvious from the number of flakes and chips that we were on an actual occupation site, and the proximity to a water supply fitted in with previous identifications of occupation sites. Outside site "A" there were a few flakes scattered here and there over the ploughed area, but nowhere in such quantities as could be taken as evidence of an actual occupation site. There are several areas of blackened soil in the area, but I think these must have been due to charcoal burning by the monks of Crasswall Abbey; though they resemble hut sites, flints were not found in connection with them.

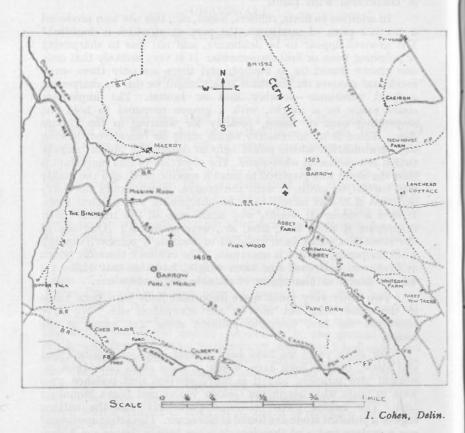
In addition to flints, rubbers, hones, etc., this site also produced a grooved piece of sandstone, the purpose of which is doubtful.1 The grooves appear to be deliberate, and not due to sharpening or polishing bone or flint implements. It is very unlikely that only one groove would be so formed, and there are only three small incidental grooves on the stone which might be due to sharpening a hard substance-possibly flint or bronze. The implement could easily be a weight, with a groove prepared to hold the suspending cord or thong, possibly for weaving in the Bronze Age. There is an alternative which must be considered, lacking any stratification which would help in dating the object, namely that it is a mediæval whet-stone. The objection to this suggestion is that the stone was prepared to meet a specific need, and the maker was careful to girdle it with the groove, which would not have occurred if it was merely used for sharpening iron or steel tools. If it is a mediæval weight, why again was all the trouble taken to prepare it when lead, iron, etc., were available? One side of the stone has either been polished or used as a polisher, whether while suspended or not is uncertain. The evidence therefore seems in favour of a Bronze Age loom weight, and this may stand till we can find a similar object of datable origin elsewhere.

Two other very much more important finds have been made in the same field, but not on the occupation site. We have recovered the first complete polished stone axe found in the county.

For some years we have been finding chips of polished flint and stone, broken from axes, which in some cases have been reworked into scrapers, and it is fairly obvious that polished axes were in quite wide use in the Golden Valley and Black Mountain area. The largest piece recovered previously was the cutting edge of a polished stone axe found at Sheagaer. This latest specimen² was a surface find, and therefore does not help in dating the Abbey occupation. It might quite easily belong to the Cefn Hill "A" Neolithic site, as it was found not very far from that area, and I think it might be suggested that the occupants of Cefn Hill "A" were responsible for it. The stone used was probably a drift pebble.

In addition to the polished axe, one of Mr. Price's workmen has recently added yet another complete stone axe to the collection from the same field.³ This is an extremely interesting find as it

¹ Fig. II, 4.



Map of Upper Crasswall Valley Showing Pre-Historic Sites referred to in Paper by Mr. R. S. G. Robinson.



Fig. I.

- 1. MOUND, PARC-Y-MEIRCH.
- 2. Site of Occupation in Lower Half of Ploughed Field, Birches "B" Site.
- 3. BARROW (?), PARC-Y-MEIRCH.



Fig. II.

- 1. SANDSTONE AXE, ABBEY "A" SITE.
- 2. POLISHED STONE AXE, ABBEY "A" SITE.
- 3. Plano-Convex Flint Knife, Birches "B" Site.
- 4. GROOVED SANDSTONE, ABBEY "A" SITE,

is of unusual shape, and has been sharpened and shaped by polishing or rubbing. I have not had time to send this specimen to Birmingham University for examination and report yet—but when this has been done a note will be inserted in the *Transactions*. For what it is worth, my own opinion is that the polished axe is Neolithic, while the second so nearly resembles in type the early copper or bronze axes that it may be of early Bronze Age—metal axes were probably scarce in this district, and the shape was duplicated in stone. The question requires much more investigation by experts before the two axes are satisfactorily dated.

Two points must be noted—no arrow heads have been recovered from this field, and only very occasional small points. This is very different from Cefn Hill "A", where we obtained typical Neolithic points, blades and arrow heads, and therefore it is a reasonable theory that on the Abbey Farm we have a later occupation corresponding to the Bronze Age site at Cefn Hill "B". The elevation also suggests this, as both sites are about 1,300 feet above sea level.

In support of the argument that the Abbey site is Bronze Age, we have what may be the remains of a round barrow, on the ridge above the site, at about 1,500 feet above sea level. This barrow, if such it is, appears to have been opened or partly levelled at least, and there is not much of the mound left, but there is a very decided berm round the heap of stones. The mound is too small to be the remains of a building or sheep pound, while a circular berm would not fit into either form of building. If Mr. Price would allow it, it would be well worth while for the Club to make a small excavation to ascertain whether it is a round barrow. A similar destroyed round barrow was found by Mr. George Marshall and myself at Pent-wyn on the Urishay Ridge. Some legend may have existed that the mounds covered buried treasure which led to excavation at an early date—this has frequently occurred in other parts of the country. There is also what might be the remains of another small barrow nearby; here again a small excavation would settle the question, though it seems unlikely that any remains will be found here.

That completes my report on the Abbey "A" sites, and we will now turn to site "B" on the Birches Farm.1

Here again we have to thank Mr. Lewis for recovering flints, hones, etc. The occupation site here is very clearly indicated by his finds; it is situated towards the bottom of a slope on fairly flat ground, adjoining an area that shows evidence of having been wet or swampy for a very considerable period. There is a large patch of whitish soil here. The ground had apparently not been cultivated previously, and as it has again been laid down to grass

it is very fortunate that Mr. Lewis utilised the only opportunity of locating the site that may occur for a very considerable time.

The flints resemble those from Abbey "A", but among them is a beautiful specimen of a flint knife, one of the best, and most interesting specimens we have found in our area.\(^1\) This knife is particularly interesting as it is of a recognised individual type. In the Antiquaries Journal for April, 1949, page 80, there is a report on a similiar knife found in a secondary burial in a round barrow at Haresfield in Gloucestershire. The report states that the Haresfield specimen was found in an empty cist in 1903, and that it is a typical convex knife as described by Dr. J. G. D. Clark, and attributed by him to the "Food Vessel" complex of the Early Middle Bronze Age. Only two of these knives have been recorded from Gloucestershire—the Haresfield specimen, and one found by Dr. Grimes in a barrow near Northleach in 1940.

Our specimen is therefore evidence of the spread of this particular culture from North-East Britain, through the Cotswolds to the Black Mountain region, and is of considerable assistance in helping to date the Crasswall occupation. The Olchon burial is additional evidence of an occupation at the same period.

Dr. Clark quotes eight examples of this knife found with . "Unaccompanied cremations"—and it is possible that our specimen was originally in a cist or round barrow that was destroyed and the contents scattered. The dating of the Birches occupation as Bronze Age is supported, as in the case of Abbey "A", by the discovery of what appears to be a small round barrow or mound on Parc-y-Meirch, close to the north hedge. Nearby is a small standing stone and lying against the hedge bank are a number of large flat slabs which could well have formed a cist which has been destroyed. The round barrow is a very small type, and without excavation it is impossible to judge precisely what it is—it is to be hoped that Mr. Price will allow the Woolhope Club to carry out a small one for identification purposes.

In this area there is another small mound,³ which could be the covering of a cist burial, and very little excavation would decide the question—it will be remembered that there did not appear to have been any large mound over the Olchon cists, and therefore the Crasswall burials may be of similiar type.

The height above sea level of the barrows—if such they prove to be—is approximately 1,450 feet, corresponding to the Abbey barrows; it does not seem improbable that Bronze Age man in this area lived just above or on the limit of forest, and placed his barrows, on the hills, well above forest level, and if this suggestion is accepted it would coincide with occupation and barrow siting

in other parts of the country, notably some of the Gloucestershire barrows.

To sum up the latest discoveries—if the excavation of the barrows confirms the surface finds, we have located a Bronze Age settlement area in the county, complete with occupation sites and barrows, and this will constitute a great advance on the evidence that our previous records of casual surface finds has supplied. It seems possible that at the top of the Crasswall Valley, which was sheltered on all sides, there may have been quite a considerable central settlement, of which the Golden Valley occupation areas were the out-posts.

REFERENCE.

Clark, J. G. D., The date of the plano-convex flint knife in England and Wales. Antiquaries Journal, xii, 158, et seq.

AN EARLY 19TH CENTURY SURVEY OF THE PARISH OF MADLEY

By Paul Morgan, B.A.

(Read 30th March, 1950.)

In 1813 it was decided at a vestry meeting held at Madley to make a new survey of the parish for the purpose of compiling a new poor rate at 6d. in the pound, and Samuel Joseph Harris, of Hereford, was engaged to do it. Harris had probably made surveys of other parishes for similar purposes and his excellent, neat penmanship can be seen in his survey of Llanwarne that has been found recently.

The manuscript book on which these remarks are based is a copy of Harris's original document, not nearly so neat as his actual work. This copy belonged to, and possibly may have been made by, Jonathan Hardwicke who farmed 211 acres at Lulham in the north of the parish, of which he owned 114 acres and rented 97 according to this survey. This places him among the more substantial yeomen of the parish and he most probably was a churchwarden and overseer of the poor, thus requiring a copy of those liable to pay the poor rate and tithes. On the front and back fly-leaves is written: "Jonathan Hardwicke his book March 20th: 1817", with his address. It is a small octavo volume of 86 leaves, of which 13 are blank.

This survey is particularly interesting as it gives a picture of the parish before the final enclosure of the remaining $381\frac{1}{2}$ acres of common fields in 1836. (Woolhope Club Trans., 1939–41, p. 193.) When the remainder was enclosed is not certain, but in two deeds of 1781 (Hereford City Library; L.C. Deeds, 2973–74), the "common fields called Longroof and Sheldonfield (lately enclosed)" are mentioned.

In a note at the beginning Harris states that he only measured about 2,150 acres since "the remainder was copied from old surveys", so the acreages cannot be regarded as too accurate. He accounts for 5,037 acres whereas the area is today given as 5,358 acres, but this discrepancy is partly accounted for by the omission of eight properties which were added at the end, with no areas recorded, and by his leaving out the river Wye and many

of the roads. According to him, these two items only amount to $7\frac{1}{2}$ acres, while in the tithe award of 1843 they add up to 110 acres.

Harris sets forth the parish property by property, giving each its name, owner, and occupier, with every field and its area and state, whether arable, pasture, orchard, etc. This is done for 93 pieces, and then comes an alphabetical list by occupier which records the number of the property in the first part, its name, total area and rates on the land, great tithe and small tithe. Next are listed the eight properties omitted from the detailed survey and merely giving the land rate, and finally a copy of his bill for doing this work.

This bill is most interesting and shows that this new survey cost the parish £118 19s. 0d., which was £38 more than the total land rate and tithe combined. Harris charged 6d. an acre for the land he surveyed, which accounts for £53 15s. 0d., but he added an extra £4 11s. 0d. to this "for the woods which are difficult to ascertain". Then there was £5 5s. 0d. for extracting particulars from the old surveys to complete his work, which took five days. For the valuation he charged a round £50, for the "Book for terrier" 3s., and finally £3 3s. 0d. for "attending to value several places not shown before and making alterations in the Book of the same", which refers to the eight omitted properties already mentioned. This appears to be a comparatively high rate to charge and possibly represented a good profit for Harris himself.

When this survey was made in 1813, it must be remembered that England was nearing the end of her long struggle with France in the Napoleonic Wars, and conditions of a somewhat similar nature to those of 1939-45 existed in so far that as much homeproduced corn as possible was required. It is not surprising, therefore, to find that 53% of the parish was arable, which is high considering the large woodland area, while only 18% was pasture. 11% was meadowland spread all over the parish and not confined to those parts near the Wye. Woods, chiefly in the south-west, account for $5\frac{1}{2}$ % and orchards for another 5%. Harris records the state each orchard was in, and it is interesting to note that the acreage of orchard was divided between 41% arable, 37% pasture, 5% meadow and 17% orchards pure and simple. In reviewing these figures it must be emphasised that they do not include those orchards immediately around a dwelling, since Harris has a class called "House, garden and orchard", the total of which accounts for 2% of the parish. Other classes include hopyards, 1%; unclassified land 3%, which is presumably some of that which he did not actually survey himself; and roads and water which together account for only 0.1%. A glance at the map shows this to be a great underestimate, as indeed the 1843 Tithe award bears out, so it can only be assumed that the rest was not liable to poor rate or tithe. Harris only mentions those pools at Shenmore, Madley, Swinmore and Canon Bridge.

These various types of cultivation are spread in approximately the proportions mentioned above over the individual farms. In all the larger holdings arable predominates except in the case of Mrs. Ann Pritchard at Upper Chilston, who had 68% pasture while a few places like Mrs. Maddy's at the Town House and Thomas Lloyds' at Bage had between 40 and 50% pasture.

The largest hopyards were those of John Lloyd of Lower Chilston, who had 42 acres, while the nine other persons to grow this crop only had small areas, five of less than one acre in extent, though there were yards of four acres at Lulham and Swinmore.

Every property, as might be expected, seems to have had a certain amount of orchard attached, whether included in the house and garden area or not, and the larger farms had some arable, pasture and meadow orchards. In only one property, that of James Pembridge at Shenmore, is orchard the largest item, and then it was only two acres out of a small holding of three in all.

The unclassified portions are mostly small areas chiefly in the outlying portions of the parish, but Harris leaves as unclassified large parts of Swinmore (50 acres), Lulham Court and Cublington (18 acres each), and 24 acres at Brampton. Perhaps these represent what was lying fallow during his survey in the winter of 1813, or what he did not see for himself.

In the list of properties there are incidentally mentioned various houses and cottages, but only those liable to rate or tithe. There is only one "mansion", the Great House at Canon Bridge, which contrasts with Duncumb's statement (General view of the agriculture of the county of Hereford, 1805, p. 27) that "there is no mansion in the parish". Harris thus mentions 98 houses and 24 cottages making a total of 123 dwellings in all, which shows that about 40 dwellings do not appear in this Survey, since the 1811 Census gives 161 and the 1821, 191 houses. What the distinction between a house and a cottage was is not clear, but the majority of the latter were attached to the larger farms. Thomas Watkins, of Shenmore, was the biggest proprietor of cottages and owned six, and next came Mr. Elliott, the miller, with three at Cublington. Three other farms had two cottages each and the remainder were single items.

The actual acreages of the individual properties range from 486 acres at Brampton, occupied by John Pye, down to many

of only a few roods each. 51% were under 10 acres in extent; 18% between 11 and 50; 10% in both the 50–100 and 100–150 acre range; 3% in each of the 150–200, 200–250 and 300–350 classes and then 429 acres at Webton and the Brampton farm already mentioned. Duncumb (*ibid.*, p. 22) states that the average farm in Webtree Hundred was between 200 and 400 acres, but here there were only eight out of one hundred and one properties of that size, and the average is definitely under 100 acres. But there were, among those hundred and one, thirteen cases of one man occupying two properties, three occupying three and one had five lots; perhaps an indication of the remaining unenclosed portion of the parish.

Of the occupiers themselves, fifty-two were tenants and forty-nine owner occupiers. The former were chiefly to be found in the under 50 acre range, which accounts for thirty-one, nineteen of whom tenanted under 10 acres and then in decreasing numbers in the larger groups, though there was only one tenant in the 150-200 acre range and three in the 300-350. Approximately 66% of the parish was in the hands of these tenants.

The greatest number of owner-occupiers, as is only to be expected, was in the under 10 acre group, representing those small pieces of land bought when occasion arose out of savings, and tilled in their spare time by labourers and craftsmen. The largest area farmed by an owner-occupier was John Pye's 486 acre property at Great and Little Brampton, and the next in size was that of James Jones at Lulham Court with 240 acres. The remaining fifteen of this class range in an ascending ratio between 200 and 11 acres. Twelve of them also rented land, the largest being Mrs. Pritchard, who owned ten and rented 339 acres, and John Lloyd who owned three and rented 333 acres, while the other ten only rented small lots. This shows that very likely the larger farmers were able to buy small bits when the big estates came on the market and certainly reveals their desire to become land-owners themselves.

Of the twenty-three owners of tenanted properties, the chief was the late F. W. T. Brydges, Esq., who had just over 1,000 acres, or about 20% of the parish. The next was Guy's Hospital with 740 acres, followed by Lady Boughton who owned 429 acres of woodland, while the others ranged from 250 acres downwards. There were six owners of 50-100 and eight of under ten acres, again showing this splitting into small lots mentioned above. Not all of these owners were absentee landlords, since two were also owner-occupiers and five were tenants and one both owned and rented land in the parish. The woodland was divided among them in large areas and four owners are shown as occupying woods

only with no other type of land. It is significant that these landlords held all the central part of the parish and the owner-occupiers are found chiefly in the outlying portions.

Harris stated on his title-page that the "poors rate" was 6d. in the £1, but one cannot arrive at any definite interpretation of this in terms of acreage or cultivation since he only showed a total rate for each property. Roughly, however, it seems to have been between 3d. and 6d. an acre for arable and meadowland and 2d. an acre for woods. Similarly no definite conclusion can be reached over the great and small tithes, except that the great tithe was about $\frac{1}{2}$ d. an acre, and the small about 1s. for 100 acres of arable and meadow. There was no great tithe on the woods, though the small tithes were again about 1s. for 100 acres.

When this survey was compiled, social distinctions were clearly defined, and, therefore, more importance can be attached to the style in which the one hundred and eleven persons, about one ninth of the population mentioned, are addressed than if it had been drawn up recently. There was only one titled person, Lady Boughton, who owned the Webton estate, but there were seven esquires, six of whom were proprietors and only one an owneroccupier. There was one reverend gentleman, and one colonel: no more than to be expected and which is in accordance with the traditional view of an English village, and ten misters, probably the yeomen. No rank whatever was given to seventy-nine persons. who presumably were the smaller farmers, tradesmen and labourers. Twelve ladies were mentioned, four of whom were styled "Mrs.", three "Widow", one "Miss" while four had no designation. This shows the usual gradations of society to be expected, while the comparatively high number of esquires is due to the large number of different and absentee landlords.

Duncumb's General view of the agriculture of the County of Hereford had appeared only seven years before this survey was taken and his statements are borne out in this document, such as that in this district there were very heavy crops of wheat which was exported to Bristol and other places. He laments the conversion of arable to other purposes, like potato crops, but this is not apparent from this survey. From him we learn that the Guy's Hospital estate had formerly belonged to the Brydges family, and quite rightly he bemoans the fact that the rents are sent to London and not spent in the parish as "mortifying". He also says that the tithes giving 3s. 6d. to 4s. for every £1 of rent prevent any great agricultural improvement, and must have been a heavy burden. When the tithe rent charges were commuted by the Tithe Commissioners, they totalled £1,120, which is nearly 5s. an acre for the whole parish. (H. Grove: Alienated tithes, 1896, p. 188.)

Although this survey gives us a picture of the agricultural and part of the social structure of Madley at the beginning of the nineteenth century, no conclusions can definitely be reached, as there is nothing with which they can be compared. In the Diocesan Registry there is a remarkably large tithe award map, made by W. Fosbrooke and W. Price in 1843. It is about ten by six feet in size and also has a detailed terrier attached-much fuller than this earlier survey. The particulars given are very similar and if a comparison could be worked out field by field, much could be learnt of changes of ownership, crops and occupiers, as well as the 1836 enclosure. Such an undertaking is, I am afraid, beyond my scope and opportunities, and would only be of real value if similar work was done over the surrounding district. Another feature of both terriers is the fact that they record field names in the fullest detail, so that it is satisfying to know that these are recorded for us and can be drawn upon when necessary. The one thing lacking from both is the absence of occupations, which would enable us to see how much land was occupied by the various craftsmen and so forth, such as the blacksmith, builder or carpenter and so gain a complete view of the social structure of the village.

These remarks are rather overfull of figures, but some idea of the agricultural structure of the parish can be gained from them. The breaking up of the parish among several proprietors and many smallholders is perhaps the most significant, and it is interesting to note that the decline of the small owner, which had already begun in the rest of the country, is not yet apparent in Madley. What has been said should only be regarded as an introduction to what could be done with both terriers, namely a comparison of a detailed survey of each, which, incidentally, would answer the question of how much had already been enclosed before 1836. All that has been done here is to throw a spotlight on the parish for one particular year only and any significance lies in its context in the agricultural history of the county.

APPENDIX.

Houses Families Population In- Unin- Build- Total Agric. Trade Other Male Female	n Total
In- Unin- Build- Total Agric. Trade Other Male Female	Tatal
habited habited ing	7 05165
1811 155 5 1 179 110 43 26 467 414	881
1821 191 4 - 191 129 51 11 475 463	938
1931	1635
II. Area:	
1813 5037-0-23 acres (Harris's survey)	
1843 5240-3-9 ,, (Tithe award)	
1934 5358-0-0 ,, (Kelly's directory)	

III. DWELLINGS FROM HARRIS'S SURVEY:-

Mansion Houses Cottages	***	98 24	(8	not	included	in	acreage)
Total	14	123					

IV. Analysis of State of Cultivation From Harris's Survey:

	Acres	Roods	Perches	%
Arable	2666	1	22	53
Pasture	902	3	23	18
Meadow	577	0	23	11
Woodland	291	3	12	5.5
Orchards	259	0	5	5*
Unclassified	149	2	17	3
Houses, &c.	124	0	0	2.5
Hops	58	1	15	1
Water	4	1	30	.05
Roads	3	1	36	.05
	-	-		
	5037	0	23	

 $^{\bullet}$ Of which—104–3–25 arable, 41% ; 96–0–14 pasture, 37% ; 11–2–28 meadow, 5% ; 46–1–18 orchard, 17%.

V. TABLE OF SIZES OF PROPERTIES, TENANCIES AND PROPRIETORSHIP:-

		Acres							
	450- 500	400- 450	300- 350	200- 250	150- 200	100- 150	50- 100	10- 50	0- 10
Properties	1	1	3	3	3	10	11	18	51†
Owner-occupiers	1	-	-	1	2	3	4	6	32
Tenants Owner-occupiers	-	1	3	2	1	7	7	12	19
also renting	-	-	2	-	-	1	2	3	4

† 101 properties in all, of which 13 persons have 2, 3 have 3 and one has 5 lots.

VI. ACREAGES OWNED BY LANDLORDS :--

EAGES OWNED DI	LANDLOR	D3
Owners of property let to tenants		Acres owned
1	***	1000-1100
1	***	700- 750
1	***	400- 450
2	***	200- 250
1	***	100- 150
6		50- 100
3		10- 50
8	***	0- 10
-		
23		

Of these 23 owners—4 occupy woods only.
2 are owner-occupiers elsewhere.
5 rent land elsewhere.

1 owns and rents land elsewhere.

3,300 acres approximately let to tenants, i.e., 66% of parish.

VII.	SOCIAL RANKS :-					
		(wners	Occupiers	Total	.9
	Lady		1		1	
	13		-	1	1	.9
	Colonel .		1		1	.9
	Esquire		6	1	7	6.4
	Mr		10	-	10	9
	Mrs		3	1	4	3.6
	Miss		-	1	1	.9
	277' 1		2	1	3	2.9
	No rank		37	42	79	71
	Female wi	th				
	no rank		1	3	4	3.5
			_		-	
	Totals		61	50	111	100
						-

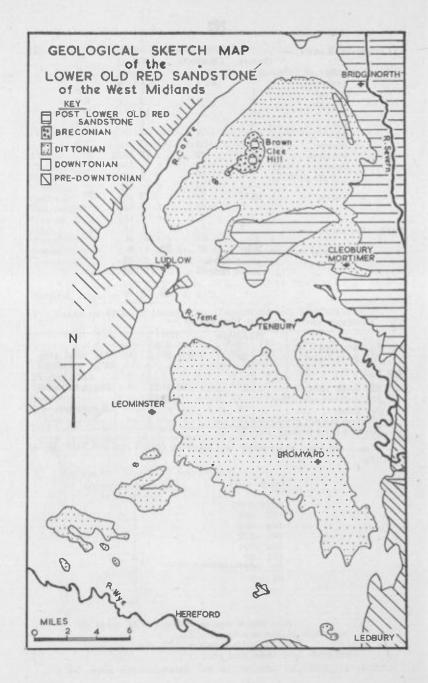
VIII. FINANCE:

Total	rate on	great		5	1 2	91
				£80	0	0

IX. UNTAXED AND UNTITHED PROPERTIES :-

	Pr	oper	ties	Acres	
No land tax				1-2-37	
No great tithe		29		231-3- 7	 4% total area 63% woodland
					area
No small tithe		23		202-1-22	 3% total area
No land tax nor	r tithes	3	***	1-2-37	
No tithes		10		-	 All cottages
No land tax nor	great tithe	e 10		_	
No land tay nor	small tithe	17		_	

Note: -At least 38 dwellings not listed by Harris and not liable to tax



THE NORTHERN PART OF THE LOWER OLD RED SAND-STONE OUTCROP OF THE WELSH BORDERLAND

By D. L. DINELEY, B.Sc.

(Read 30th November, 1950.)

I. INTRODUCTION

Only within recent years has sustained attention been given to the Old Red Sandstone of the Anglo-Welsh cuvette. Papers concerning its stratigraphy and palæontology have been comparatively few in number. Although the outcrop of these rocks occupies the major part of the south-central Welsh Borderlands, the relatively barren and monotonous sequence of sediments has not attracted workers. Clearly, however, the succession varies greatly from place to place, and problems of correlation are numerous.

The present paper is concerned with the northern part of the cuvette, the counties of Shropshire, Worcestershire, and Herefordshire, the West Midlands. Within this region the Lower Old Red Sandstone has long been known to fall into two parts, a lower marl sequence, the Downtonian, and an upper group of sandstones and cornstones, the Dittonian. The different lithologies are reflected in the topography; the marl outcrops occupy the lowland vales while the Dittonian sequence gives rise to the flat-topped hills, rising to about 800 feet O.D. This triangular-shaped northern end to the Anglo-Welsh cuvette may be likened to a large basin, containing minor, though important, flexures within its extent. To the west and north-west the beds dip eastwards from the outcrop of the underlying Silurian beds. On the east the sharp folding of the Abberley-Malvern chain terminates the outcrop of the Old Red Sandstone in that direction. This line is continued northwards by the line of the Wyre Forest coalfield, while in the south the foot of the Black Mountains may conveniently limit the area under discussion.

Within this basin the folds mentioned largely control the outcrop of the upper members of the Lower Old Red Sandstone of the region. In the north the Clee Hill mass is affected by three complementary folds, possessing a Caledonian direction. The Brown Clee Hill and Titterstone Clee reveal the axes of two synclines while the Ledwyche valley, north-east of Ludlow, is developed in the Downtonian Marl brought up by the anticline between the two downfolds. In the north the axes of these folds converge and fade away around Ditton Priors.

South of the Farlow area and around Cleobury Mortimer a small "boat-shaped" syncline aligned more or less east to west is present, while further south again the structures reveal other fold directions. In the high ground south of the river Teme near Tenbury the Dittonian shews again two synclinal areas separated by an anticline. A certain amount of faulting is also present here.

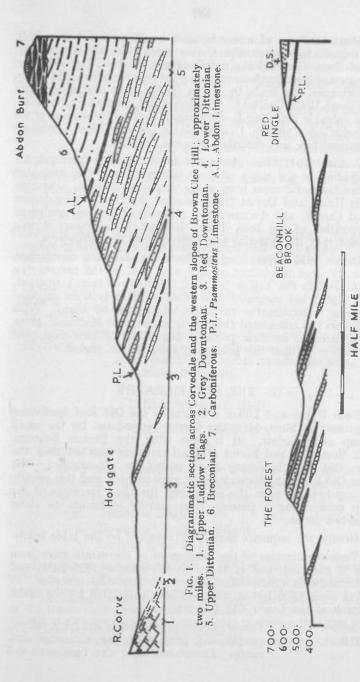
The downfolds stretch roughly from the area of Evesbatch north to Hanley William and north-west to Kimbolton, while between them an anticlinal axis runs roughly northwards through the Kyre area. That these beds have been affected by earth movements of the same age as those in the Abberley district seems likely.

In age all these folds appear to be of Middle Old Red Sandstone date for they are overlaid by beds of the Coal Measures which are not, as far as is known, much affected by them, although folding appears to have followed these lines somewhat in post-Carboniferous times. At Rock, Worcestershire, a small anticline in Old Red Sandstone is revealed below unaffected Coal Measures. (See L. Richardson, 1930, fig. 1.)

The following then is a short account of the general succession and some of the lithologies and features present within the area, much of the information incorporated being obtained during work on the Clee Hills area of Shropshire. It was this area that figured largely in the studies of W. W. King, and there were few papers of stratigraphical importance concerning the Old Red Sandstone before his. Stratigraphical work since the appearance of these papers has found an initial footing upon them.

At Trimpley (1921) and in Shropshire (1925, 1934), King divided the Old Red Sandstone into a number of lithological zones or groups. White (1946, 1948, 1950) has pointed out the need for modification of these groups, and the necessity of subdivision on palæontological grounds. The collection of fossils from various parts of the Anglo-Welsh outcrops has enabled that author to draw up a number of palæontological zones (1948, more fully 1950), and these appear to meet our present needs. An account of the palæontology and zones of the Lower Old Red Sandstone of the Clee Hills area is being prepared by the present writer.

The question of whether or not the Downtonian deposits of this region are Silurian or Devonian in age, and at what level the base of the Downtonian should be drawn have been the concern of several previous authors, and discussion has been energetic. These matters have now been fully reviewed (White, 1950) and need not detain us here. Following White, the Ludlow Bone Bed is adopted as the basal member of the Old Red Sandstone.



Brown Clee Hill. Jo the Holdgate Sandstone north Diagrammatic S. Dittonian ď Fig. 2

Short accounts of many isolated localities and beds within these deposits have appeared in the literature within the last century. Few of these discussed the details of the origin of the beds, but an important contribution concerning the peculiar lithologies within the Dittonian was made by Dixon (1921) when describing parts of the South Wales Coalfield. Mention must be made here, however, of the valuable paper by L. Richardson in the Transactions of the Woolhope Club of 1905 (p. 1), in which the Lower Old Red Sandstone of Herefordshire was described in some detail.

Walder (1941) has given the latest detailed petrographic contribution to the study of these sediments, and has suggested the directions and areas from which they were derived. Previous to this Heard and Davies (1924) studied the Old Red Sandstone around Cardiff, and discussed the probable origin and conditions of deposition of the beds there. In both these papers it was proposed that the material was derived from the north-west.

In his 1934 paper King set forth an elaborate comparison of the Old Red Sandstone cuvette with that of the present-day Po-Hai Gulf in the Yellow Sea, but this has not been supported. White (1950) has suggested that complex river systems supplied sediments intermittently to a mud-flat type of basin. Wills (1948) also has considered these beds in the west Midlands, given a short account of their probable conditions of formation, and described in outline the palæogeography of the period.

II. THE STRATIGRAPHY

Both Upper and Lower divisions of the Old Red Sandstone are present in Shropshire, the former represented by the small outcrop near Farlow. (It is only when the Brecon Beacons, Black Mountains and Forest of Dean areas are reached that the Upper Old Red Sandstone again makes its appearance.) The Lower Old Red Sandstone alone concerns us here, and this usually rests comfortably upon the Ludlovian, the basal members of the group constituting a passage from marine sediments to those of red-bed facies.

Briefly, the sequence may be represented by the table below.

Various estimates of the thicknesses of the strata have been made in the past, and of these W. W. King's (1925-1934) and L. Richardson's (1905) have been most generally accepted. A total of some 3,900 feet or more has been postulated for the entire thickness of the Lower Old Red Sandstone.

BRECONIAN 900 ft.

Coarse calcareous sandstones and grits, yellow, purple and grey with fine siltstones and marls. Limestones near the base.

Upper DITTONIAN1 260-400 ft.

Coarse sandstones and pellet cornstones, yellow and purple in colour, with thick intercalated marls with race.

Lower DITTONIAN 800-900 ft.

Red and green lenticular sandstones and cornstones, intercalated with thick red and green marls with race. In the basal beds the "Psammosteus Limestones", 1-12 ft. thick. Below these here and there irregular bands of red and green, calcareous sandstones and cornstones up to 100 ft. thick.

Upper Red² DOWNTONIAN MARLS 250-400 ft.

Red marls with occasional thin red and green sandstones.

HOLDGATE Sandin all

Local, thin, purple and green, micaceous stones up to 400 ft. sandstones intercalated with marls.

Lower Red DOWNTONIAN MARLS 350-400 ft.

Similar to the Upper Group but with thin sandstones at the base.

15-170 ft.

GREY DOWNTONIAN Grey, green, olive, and rust-coloured lenticular sandstones and siltstones, often calcareous, in purple and green marls, including the Ludlow Bone bed.

LUDLOW BONE BED SILURIAN SYSTEM

THE GREY DOWNTONIAN

The lower part of the Downtonian sequence marks the passage from marine sediments to those of continental aspect, and is usually regarded as being comprised of the following, very variable, units:—

- iii. Temeside Beds.
- ii. Downton Castle Sandstone.
- i. Ludlow Bone Bed.

Despite the name, the colour of the beds is far from constant and they are difficult to map in the field. It is perhaps in the

² The top of the Downtonian is here drawn at the upper limit of the

¹ The distinction between Upper and Lower Dittonian strata is based on the faunas they contain. The Lower Group is characterised by the presence of Pteraspis leathensis, Pt. crouchi, and Pt. rostrata, the Upper Group by a species resembling Rhinopteraspis dunensis.

Ludlow area that they are best known. Elles and Slater (1906) described the sequence there, and the Geological Survey later adopted their classification (See Whitehead and Pocock, 1935, 1948). Numerous other sections within these beds have been described and compared with that at Ludlow.

The outcrop of Grey Downtonian rocks is, of course, to be found almost everywhere between that of the Upper Ludlow and the Red Downtonian, but from existing accounts it seems that it is a most inconstant division. Often in the field the position of the Ludlow Bone Bed horizon is a matter of extreme uncertainty.

White (1950, p. 54) remarks that "... the Grey Downtonian is a local development of the Red Marl Group, and the level at which the rocks change colour varies with the district." Such, indeed, seems to be the case. In Corvedale and along the western side of the Malvern-Abberley range the thickness of the grey beds above the Ludlow Bone Bed is known to be very inconstant.

The Ludlow Bone Bed, like all condensed formations, is a thin irregular deposit, and as a true bone bed, is seldom thicker than two or three inches. Its typical development is well known, but the distribution of this seems to be very uneven, and as often as not, the horizon is represented by other sediments. The origin of the bed in its characteristic form has been the centre of some discussion. Opinion lately tends to regard it as a condensed bed of winnowed fragments, a product of slow sedimentation rather than the result of sudden and catastrophic extermination of huge numbers of vertebrates. Professor Wills (1948) recently described this process, and White (1950) has shewn the importance that must be attached to the horizon.

The typical Ludlow Bone Bed facies does not appear to be confined to one, and only one, particular horizon, and one may suspect that at the junction of the Ludlovian and Downtonian there exists a number of bone-bed lenticles, rather than one single layer.

Robertson (1926) suggested that in the Corvedale district the Ludlow Bone Bed facies was everywhere present at the top of the Silurian, but even here it was noted that the vertebrate material occurred in closely-placed lenticles, often one above another, rather than as one continuous band.

More than one such bed is encountered in the Ludlovian-Downtonian sequence in South Staffordshire; and south-west of the Church Stretton area the uppermost Ludlovian beds have several condensed members, or bands containing little but the winnowed remains of invertebrates and vertebrate fossils, within them.

THE DOWNTON CASTLE SANDSTONE and TEMESIDE BEDS shew a progressive change in lithology from a sandy facies to an argillaceous

one. The yellow, false-bedded, coarse and occasionally very fossiliferous sandstones seen in the type section at Downton Castle give way to grey-green and olive-coloured shales and marls. To the west the Grey Downtonian takes on a more argillaceous aspect and a pronounced green colouration. (See Earp, 1938.)

In the south-east, along the western side of the Malvern-Abberley range, as mentioned above, the group shews very considerable variation both in lithologies present and in thicknesses. This may in some places, but not everywhere, be due partly to tectonic causes.

Near Eastnor, Hereford, the sequence of grey beds above the Ludlow Bone Bed horizon is as thin as 30 feet, with no sign of tectonic disturbance. (R. C. Jones, unpublished thesis, Geol. Dept., University of Birmingham, 1950.) Sandstones and red marls representing the Ledbury Beds facies follow above this. Richardson (1935), however, records a thickness of between 30 feet and 80 feet for the Downton Castle Sandstone in Herefordshire, and for the Temeside Beds following a thickness of between 110 and 120 feet. The same author's records for Worcestershire (1930) give the respective thicknesses of these beds as 80 feet–100 feet and up to 350 feet.

THE RED DOWNTONIAN

A monotonous sequence of red marls forms the major part of the succession between the Grey Downtonian and the *Psammosteus* Limestones. Near the base of these marls occur several thin, fine sandstones and pellety beds, while some 400 feet up from the base of the group several thin sandstone lenses make their appearance.

The division as a whole has long been recognised, and has an extremely wide geographical range, being found in all parts of the cuvette. It has been shunned as unfossiliferous, but fossils have on occasion been found in the sandstones.

No sharp boundary with the Grey Downtonian can conveniently be drawn, and the persistence of sandy beds from the latter into the red-bed facies may account for the Ledbury Beds. These are sporadic and lenticular developments, never of any great aggregate thickness, and retaining the fish fauna of the Grey Downtonian (Thyestes, Hemicyclaspis).

At Ludlow there are pellet beds at low horizons within the marls, and these shew signs of rapid deposition and winnowing action, most of the pellets being the size of a large bean.

The marls reveal race accumulations at various levels, especially near the top of the group, but they are known from beds as low as the Grey Downtonian (Earp, 1938). Near Aston Eyre, Salop,

a bed of large whitish nodules is developed just above the Holdgate Sandstones, and appears strikingly similar to the *Psammosteus* Limestone.

Certain levels within the marls yield a few small and stunted pelecypoda (Reed, 1934) and such bands are often a green-grey colour. Joint-planes often shew this colouration, and spots of it are extremely common throughout the red marls. These features of colour-change are reminiscent of the Triassic marls, affinities with the latter are also to be found in the somewhat dolomitic nature of the marls and the salinity of the ground-water associated with them.

In the Corvedale area the thickness of the Red Marl Group approaches 1,000 feet and locally it is divisible into an upper and a lower part by the Holdgate Sandstones. To the south of the Shropshire area, higher in the sequence, other sandstones, the *Ischnacanthus* sandstones and cornstones, may be present from place to place. These comprise King's I.6 group and, where developed, are to be found in the upper part of the Red Marls. Like the Holdgate beds, they are a variable group of thin lenticular sandstones, yielding only a sparse fauna. As White (1950, p. 51) points out, the appellation "*Ischnacanthus* Sandstones" is of no stratigraphical significance.

THE HOLDGATE SANDSTONES

These sandstones were first noted by W. W. King (1925, 1934) and were named after the village situated upon a small sandstone escarpment in mid Corvedale. Here and to the north the "sandstone" is, in fact, a series of lenticular, current-bedded medium-to-coarse-grained sandstones, intercalated with marls, the whole expanding to about 400 feet in thickness in the north. The individual sandstones are red-purple or green in colour and often very micaceous. The marls between them are the usual Downtonian type and the sandstones frequently rest upon eroded surfaces of these. Where fossils are present they are usually small fragments of Oniscolepis sp. and Kallostrakon podura.

The lateral extent of these beds calls for comment. In the Aston Eyre district, north of the Brown Clee Hill the beds are present in full force, some 400 feet of thin sandstones intercalated with marls, but eastwards to Morville and southwards down Corvedale they die away rapidly. At Baucott in mid Corvedale there is only a total of thirteen feet remaining. South-west of the Clee Hills the beds are not developed, but thin sandstones occupy these horizons south of Cleobury Mortimer and near Ledbury. The claim that these beds are present in Herefordshire (Richardson, 1935) may well be substantiated, but their outcrop cannot be regarded as continuous with that in Shropshire. Water obtained

from these beds in both counties has been found to be considerably saline.

THE Psammosteus LIMESTONE

Within what is here regarded as the basal Dittonian strata are several prominent and distinctive limestone beds. They occur at or near the foot of the escarpment formed by these lowest Dittonian beds, the so-called "Psammosteus Limestone Escarpment". The presence of these limestones has been known since the earliest observations were made upon the geology of this region. Murchison mentions them in his works "Siluria" and "The Silurian System" and D. M. Maccullough, a prominent member of the Woolhope Club in his day, remarked upon them in the Transactions 1869, and distinguished them from the pellet beds. W. W. King, however, seems to have been the first to recognise them throughout the whole of the Anglo-Welsh Cuvette, and bestowed upon them the rather unfortunate name. (As White, 1946, points out, the name is unfortunate since it is not Psammosteus, but Traquairaspis, that is found in the fossiliferous beds associated with the limestones.)

King's group I.8 was characterised by these limestones, of which there may exist at any locality more than one. In the stream sections on the escarpment in the Shropshire area, and perhaps to the south as well, there appears to be one major or principal limestone, with occasional, thinner, similar bands in the adjacent strata. In his surveys of the Wells and Springs of both Wörcestershire and Herefordshire L. Richardson (1930, 1935) speaks of "the (Psammosteus) Limestone", and one gathers that throughout the area one such main limestone is developed at or near the foot of this Dittonian escarpment. The bed does in fact often appear to separate a permeable series (the Dittonian) from an impermeable group (the marls) and quite often its line of outcrop is marked by a number of springs and wet and marshy ground.

A thickness of some 12 feet or so may be attained by this main limestone, but usually it is in the region of 5 feet. Where they are present, the other similar beds are less than this, their development much less massive, and they are extremely local in their geographical extent. In the exposures along Suttonhill in Corvedale the main limestone can be traced very easily, and in fact is clearly exposed over some distances, and its comparatively constant nature shewn. On the other hand the irregularity of what is regarded as the same bed in the Monkhopton area, north of Brown Clee Hill, is well demonstrated, for in the excellent exposures there, within the space of a few yards, the limestone, some 4 feet thick, fades rapidly and completely away and reappears a few

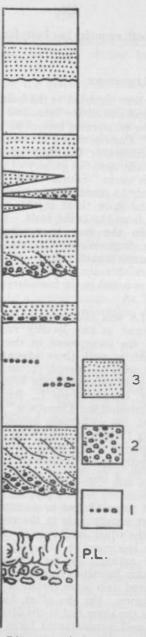


Fig. 3. Diagrammatic section typical of the lower part of the Lower Dittonian. Scale, I inch = 12 feet. P.L. Psammosteus Limestone.

 "Race" bands; 2, "Cornstones" or conglomeratic beds; 3, Sandstones. yards further on. Perhaps the nature of this deposit may be likened to that of a sheet with, here and there, holes in it.

In lithology the limestones are distinct from the sediments with which they are associated. Such a bed is frequently greywhite, pink or purplish in colour. The upper parts of the main limestone may be massive, but usually grading into a rubbly or concretionary part below, or vice versa. A fluted and columnar appearance may be developed where the more massive limestone falls into columnar or prismatic joint blocks. Here and there within this massive limestone large pods and veins of red, green, and purple marl may be found. There is no trace whatsoever, beyond the passage from nodular to "solid" limestone, of any form of bedding or lamination.

The nodules are so similar to the small concretions found within the marls, and known as "race", as to suggest a genetic similarity. Indeed, they appear to be the development par excellence of calcareous concretionary matter within the marls, and the massive parts seem to have resulted from the coalescence of such nodules. King postulated a secondary origin to these beds, and put forward the idea that they had been brought into existence shortly after the deposition of the enclosing marls, a hypothesis generally accepted by other writers.

In composition the bed seems to be a remarkably pure limestone, perhaps a little dolomitic from place to place. The noncalcareous matter is an extremely fine argillite, and no organic material has as yet been found associated with the formation of the sediment. King (1925) and Richardson (1935) give analyses of samples of *Psammosteus* Limestone.

Around the Clee Hills the main *Psammosteus* Limestone has been mapped and forms a valuable marker or datum horizon. It seems convenient to regard this bed in the field as basal member of the Dittonian where palæontological evidence is not to hand. Such indeed is the practice of the Geological Survey. (See Richardson's note 1935, and Whitehead and Pocock, 1947.)

THE DITTONIAN SANDSTONES AND CORNSTONES

Resting conformably upon the Downtonian marls, the Dittonian beds contrast sharply with those below them. They comprise a series of sandstones and cornstones with thick marls. These marls still form the bulk of the succession, but the harder beds are most conspicuous. The group as a whole is remarkably calcareous for a red bed sequence, and exhibits many interesting features.

Over much of the ground it is convenient to regard the Psammosteus Limestone as the basal member of the Dittonian beds. Locally, however, sandstones and cornstones in every

way similar to those above are to be found down to nearly 100 feet below this horizon. These beds are Dittonian in that they contain *Pteraspis leathensis* and other Dittonian fossils. So lenticular and impersistant are they that it is not possible to map them over any great distance, for they pass laterally into the marls characteristic of the Downtonian. This local development of coarse beds it is proposed to call the Lye Bed facies, since they are well shewn in the stream at the Lye Forge (or Mill), near Morville, Salop (see White & Toombs, 1948).

Although the base of the Dittonian in Shropshire is to be placed some little way below the *Psammosteus* Limestone, it is useful to regard the latter's outcrop as approximating to the base of the group. The upper limit of the Dittonian is rather more difficult to fix; the scarcity and state of the fauna render accurate palæontological work in the field difficult. Upwards the marl-sandstone sequence grades into a series of coarse sandstones and siltstones, and the upper limit of the Dittonian sequence in the Clee Hill district is placed at the base of the lower of two limestones, the Abdon Limestone, similar to and some 1,300 feet above the *Psammosteus* Limestone, as suggested by H. W. Ball (in Wills, 1950).

On lithological grounds a division of the Dittonian into two groups suggests itself, but these in no way correspond to the two zones postulated by White (1948, 1950). This division is due to no recognition of a sudden or sharp change in facies, but rather to that of a passage from one set of lithologies to another. It is proposed to call these the Upper and Lower Dittonian Groups (cf. Wills, 1950). (See fig. 1, page 127 above.)

The most striking features of these beds are their lenticular nature and their rapid alternation in the vertical column. The lithologies and other peculiar depositional features are described later (p. 139).

The Lower Group occupies by far the greater part of the Dittonian outcrop and gives rise to the upland parts of this region. The Upper Group is only known for certainty in the neighbourhood of the Clee Hills where it occupies the mid slopes of these hills, and is preserved in the synclines of Brown Clee and Titterstone Clee. A similar synclinal area or basin at Cleobury Mortimer may, upon investigation, reveal a further outcrop of the Upper Dittonian beds.

To the south these Upper beds may be preserved in the synclinal areas of Kimbolton—Evesbatch and Hanley William—Evesbatch. The high land around Bredenbury may also preserve these beds.

The author has only studied the group in the Shropshire area and a few remarks upon the strata there are included below.

I. THE LOWER DITTONIAN BEDS OF THE CLEE HILLS

These are the strata confined to the zones of *Pteraspis* (Simopteraspis) leathensis and *Pteraspis crouchi*. Of the two zones, that of leathensis is very much the smaller, being about 150 feet thick, while the other may be five times this figure.

Here and there the beds are extremely fossiliferous, but the faunas are usually made up of many individuals of only one or two different species. The problem of the faunas has been discussed by White (1948, 1950) and by Wills (1948, 1950).

The lower zone includes the beds of the "Psammosteus Limestone Group" and the "Eurypterid Grits", King's groups I.8 and I.9. The "Cephalaspis Sandstone" does not appear to be a recognisable horizon in the area, and in view of the nature of the beds this is understandable.

Wills (1948, 1950) states that the sandstones and cornstones predominate in the Dittonian, but this does not seem to be quite the truth in this area, for the hard beds occupy between only 25 and 45 per cent. of the total thickness of this lower part of the Dittonian. It is only in the Upper Dittonian that they appear to increase to about 50 per cent. of the total bulk. Near the top of the *crouchi* zone, however, marls occupy, in a thickness of about 100 feet, almost the entire succession.

The beds of the Lower Dittonian are conspicuous in their bright red, purple, and green colouration, but towards their upper horizons these become paler, and yellowish tints appear.

II. THE UPPER DITTONIAN BEDS OF THE CLEE HILLS

The Upper Dittonian beds are marked by the appearance of a *Pteraspis* resembling *Rhinopteraspis* and other forms distinct from those of the lower faunas. These fossils first appear at horizons characterised in places by the development of thick sandstones and cornstones. Ochreous colours now become much more intense and common. Coarsening of the grade of the beds is noted, some of them now becoming gritty and pebbly. The marls found lower down give way to more silty beds, often of a dark purple or maroon colour. There may be some variation in thickness from place to place in these beds, between 260 and 400 feet being calculated for different parts of the Clee Hills area.

LITHOLOGIES

Already a considerable literature exists concerning the petrography of the Old Red Sandstone. Dixon (1921) has given a clear description of beds similar to those under discussion here. W. W. King has said relatively little on the subject.

Fleet (1926) and Heard and Davies (1924) have given petrographic descriptions of some of the Old Red sediments from the Welsh Borderland, while Walder's work on a Downtonian sandstone has been mentioned above also.

The marls are very similar to those of the Downtonian, but they exhibit perhaps a wider range of green, grey and purple colours. They tend in places to become very silty and to grade into ripple-marked silty sandstones. Elsewhere they contain frequent bands of race, and small, calcareous rod-like bodies. (See Dixon, 1921).

The cornstones have been the subject of some difference of opinion, the definition of the term being in question. Here it is applied to a pellet conglomerate of more or less calcareous nature. The concretionary limestone beds are not included within the definition.

Often cornstones are lenticular beds of no great thickness, in other instances they are merely basal layers to sandstones. False- or cross-bedding is rarely absent, and the beds usually overlie erosion-surfaces.

Small, flat, rounded pellets of marl, and limestone or race pellets form the bulk of the constituents of the beds. Quartz, jasper, and chert pebbles are also frequently present within them. The limestone and marl pellets are, for the most part, identical with rock types within the series, some, however, are interesting in that they possess pale colours, creams, white and pale greys. This colouration often seems to accompany the decomposition of the pellet within the bed and may therefore be due to post-depositional reduction of iron. The matrices are usually of marl, silt, sand or even pure crystalline calcite, and gradation from one type to another takes place frequently within a few feet.

It is from these beds that most of the fossils have been obtained. On occasion the fossils have become the nuclei for the deposition of hæmatite within the bed. Pellets of black carbonaceous matter are common in some of the green, more argillaceous cornstones. The sandstones and siltstones comprise beds of all grades between the marls and the cornstones. Frequently one type of lithology grades into another. Some sandstone beds are flaggy, others massive, others cross-bedded. Purple-red, buff and green colours predominate and many of the sandstones are calcareous, some being lustre-mottled. Pellet layers are common within them even when they are not intercalated with bands of true pellet cornstones.

There have been several petrographic accounts given of such beds, but some points are worth mentioning. Micas are common, especially in the flaggy sandstones of the Downtonian, and also persist in those of the lower Dittonian beds. Quartz, jasper,

and chert pebbles are occasionally present, again in the lower beds, but generally the sandstones are fine-grained. One or two instances of a coarse grit are noted from some of the beds below the *Psammosteus* Limestone, but these beds do not seem to be widespread.

DEPOSITIONAL FEATURES

The following have been observed in the strata of the Old Red Sandstone of the Clee Hills area.

CURRENT-BEDDING

Most of the cornstone beds and a great number of the sandstones exhibit very clear cross- or current-bedding. Frequently the direction from which the sediment was deposited appears to have changed in successive beds. With the collection of a great number of dip records it may be possible to suggest a general direction from which the sediments came.

RIPPLE-MARKING

Ripple-markings are common in the fine sandstones and siltstones throughout the Dittonian sequence and are to be found at lower horizons. The upper surfaces of some of the thicker cornstones shew gentle undulations, in every respect like large-scale ripple-marks, the distance between the crests being 8 or 9 inches. Presumably these result from some sort of ripple action upon the unconsolidated beds of pellety material. There is, for the most part, no evidence to show that these ripple-marks were ever exposed above water.

SUN-CRACK-MARKINGS

- These were until recently not recorded from the Anglo-Welsh Cuvette (see Wills, 1948, p. 28), but the writer has now found them at a number of localities around the Clee Hills.

The beds exhibiting the casts of sun-cracks are fine red-brown and green sandstones in the Dittonian, but one instance is recorded from the siltstones near the base of the Red Marls at Ludlow. These casts are of small fissures produced in the marls during extreme dessication, and filled with the sand which gave rise to the present sandstone beds. Most of the sun-crack polygons are small, about 4 inches in diameter, but from near Morville and at Nine Springs very large ones have been obtained. Only at Dairy Rough, Neenton, Salop, are the suncracked surfaces exposed over any distance and here a fine red siltstone is revealed in the stream bed. Here rain-spot pits are also recorded.

One or two of the cornstones exhibit fissuring rather similar to suncrack marks. Near Aston Eyre and Ledwyche, Salop, thick cornstones are penetrated by veins of fine sandstone. Each vein is about half an inch across at the top of the bed and over a depth of two feet or more tapers gradually. The walls are fairly plain and the sandstone included between them is identical to that immediately resting upon the cornstone. So far the upper surface of one of these cornstones has not been found sufficiently exposed to discern any pattern to this veining. Dixon (1921) noted this phenomenon in beds in Pembrokeshire and described them as being like sun-cracks but extending much deeper.

SLUMPING

The contortions of bedding within strata of lower palæozoic mudstones and known as slumping have not been previously recorded from the Old Red Sandstone. In the (Fishmore) Brick Pit at Ludlow a thick Downtonian sandstone, some 10 feet thick, shews contortion of the laminæ within it similar to those described elsewhere. The bed in question is a fine-grained red sandstone which, over a space of two or three yards, wedges out completely against red and green-banded marls. Near the base of the bed, where it becomes suddenly and rapidly thinner, the normal bedding becomes contorted into a whorled pattern. This pattern is clearly shewn by the presence of small marl pellets incorporated within the sediment. This structure may have been produced by unconsolidated sediment slipping down the side of the channel in which it was deposited. There is no evidence to suggest that the bed was ever sub-aerially exposed.

EROSION SURFACES.

Many of the cornstones and sandstones lie upon extremely irregular surfaces of marl. Some of the Holdgate Sandstones and many sandstones in the Dittonian exhibit this feature. Sculpturing of the marl to a depth of several inches appears to have taken place and the sharp irregularities produced are preserved by the covering of the coarse beds above.

Roberts (1863) described a quarry near Bouldon reputed to contain crustacean tracks imprinted on a flaggy sandstone. The particular horizon at which these occurred is no longer visible, but loose slabs suggest that the features he described are perhaps peculiar erosion or current markings faithfully reproduced as casts on the underside of the bed covering the originally sculptured surface of marl. Here, as at other localities, some of the markings are cigar-shaped bulges about 4 inches long and more or less all aligned in the same direction, giving, it is true, the vague appearance of some animal track.

Features which would be perhaps described elsewhere as "fucoid markings" have been found near Ditton Priors, but there is no evidence to suggest that they have any vegetable association whatever.

THE BRECONIAN.

This term "Breconian" has been employed of late to denote the beds of age equivalent to the Brownstones and Senni Beds. The type area lies, of course, to the south and south-west of the region under discussion. It is well to remark, however, that in the Brecon area these beds are clearly distinguishable from those below (see T. N. George, 1948) and the separate divisions have been long recognised. The results of an investigation of the beds above the Ditton Series of the Clee Hills is shortly to be published by H. W. Ball, but he has kindly allowed me to include a note upon them here. L. J. Wills (1950) has produced a short account of these beds from the same source.

On the upper slopes of Brown Clee Hill a sequence of some 900 feet of beds lies between the Ditton Series and the unconformable Coal Measures. Unfortunately these beds appear to be unfossiliferous, but it is suggested that they are of Lower Old Red Sandstone age, and correspond to the Senni Beds of South Wales.

The passage from the Dittonian is marked by an increase in the number of arenaceous beds and a coarsening of the grade of the sediments, while a change in colour towards grey and dark brown tints is noted. The marls of the Ditton Series give way to silty marls and siltstones. The base of the Clee Beds is drawn below the lower of two concretionary and clastic limestones. Above this the beds are very calcareous, and consist of grey-brown gritty sandstones, sometimes with pebbles and chocolate-coloured siltstones and silty marls.

III. CONDITIONS OF DEPOSITION.

Since the early studies upon the Silurian-Old Red Sandstone rocks of the Welsh Borderland, their mode of origin has been a major question. The sequence from marine beds to continental facies, save for the Ludlow Bone Bed, reveals no breaks, and the gradation from one type to another is known in some considerable detail. In the *Transactions of the Woolhope Club* for 1887, W. Elliot's Presidential Address gave an outline of the conditions under which it appears that these rocks were formed.

The latest account of the sedimentation of the Siluro-Devonian times has been given by Wills (1950). This author notes the establishment of deltaic conditions with the deposition of the beds

immediately succeeding the Ludlow Bone Bed. The main fauna of the Ludlovian has virtually disappeared, and presence of Lingula, Platyschisma, and Estheria may denote brackish or freshwater conditions. The Downton Castle Sandstones are markedly false-bedded, shewing deposition by fairly strong currents. Ostracoderm and eurypterid remains are common in places and these may denote flooding of the area by fresh waters from the rivers of the surrounding land. In the Temeside Group the argillaceous type of sediment prevails, and here and there the pronounced yellow, grey, or olive-green colouration is replaced by the red of the Red Downtonian. This may indicate that conditions in the areas from which the sediment was derived were becoming progressively more arid.

From the deposition of the great thickness of red marls which follow in the Red Downtonian, we may assume some constancy to the conditions prevailing. In the Ledbury Bed facies, the Holdgate Sandstones, and the *Ischnacanthus* Sandstones coarser grained beds are present, and may probably indicate temporary periods of greater current action and the transportation of heavier detritus into the cuvette (perhaps due to slight climatic changes, such as sudden and heavy rainfall). Their local occurrence and their lithological characters suggest that they were comparatively rapidly deposited, in some instances cutting erosion surfaces upon the banks or beds of marl across which the currents moved.

The marks themselves do bear great resemblance to those of the Keuper and may have originated under like conditions. Regarding the latter group, Bosworth (1912) has suggested the conditions which brought about their formation. He attributes the transport of some of the marl material to wind action, the wind dropping its burden upon the surface of the Keuper lake. On the other hand, the removal of a red lateritic soil from the surrounding land-mass by heavy rains may have provided or contributed to the accumulation of the marls. The remarkable uniformity of the marls as a whole tends to suggest that, whatever process was operative, it was one of considerable duration and monotony. Wills says of the Keuper Marls "much of it may have been wind-carried into the cuvette as dust, and may have been arrested on surfaces kept damp by their contained hygroscopic salts, to be rearranged at intervals by sheet floods and local temporary streams". So may it well have been with the Downtonian marls, while the Holdgate Sandstones may represent the deposits of local temporary streams.

Within the marl grey bands have been found yielding mollusca. These are most likely only local occurrences, and although they may possibly represent the establishment of conditions more nearly approaching marine, they cannot be regarded as marine-bands in the usual sense of the word. Water from the Holdgate

horizons is often saline, but we have no salt pseudomorphs present, and one cannot say much concerning the composition of the waters in which the beds may have been deposited.

The rocks are, however, extremely calcareous. The Dittonian sandstones are often so indurated with calcareous matter as to be lustre-mottled, while the development of race (and the limestones) appears to be due to a saturation of calcareous mineral matter within the beds, at least shortly after, if not during, their deposition. The lateritic type of weathering which may have been active upon the surrounding land-mass would produce carbonates in solution. If it were the weathering, for example, of igneous rocks with lime-soda felspars, there would have been produced ample calcium bicarbonate in solution. As in the Keuper Marl lakes, evaporation may well have exceeded supply of water and the minerals held in solution were slowly deposited. Origin of the lime in the local Silurian beds must be ruled out, since they formed the floor of the cuvette prior to the deposition of the Downtonian.

Race and the *Psammosteus* Limestones may have formed as concretionary deposits within the marls, the segregation of the calcareous matter being perhaps aided by capiliary action soon after deposition.

Following the marls, the Dittonian sequence shews a change in the conditions prevailing. The presence of the arenaceous beds indicates a more vigorous type of sedimentation, and the characters of these beds shew that they were probably deposited rapidly and in local channels or courses. They often rest upon eroded marl surfaces, and have a basal marl pellet conglomeratic layer. Some horizons have revealed sun-crack markings, and at one rain-spot pits, thus sub-aerial exposure must have taken place from time to time.

It is in the cornstone, or pellet conglomerate, beds that the turbulence of the deposition is best shewn. Their composition shews that contemporaneous erosion was so active in places as to break up thin limestones and marl beds into wafers and pellets. The race pellets contained were, no doubt, winnowed from the marl in which they were formed, perhaps to be transported themselves no great distance. The activity of these currents may be judged by the extremely coarse grade of some of the constituents of the beds, by the cross bedding, and the erosion surfaces upon which the beds rest. White (1950) has suggested that the beds are fluviatile, and has described the manner in which the fossils present in these beds occur. Certainly no marine fossils are present, and the ostracoderm and eurypterid fauna upholds this idea.

The resulting picture is one of a shallow cuvette in which the deposition of the red marls assumed the dominant role. During Grey Downtonian times a short-lived and irregular deltaic type of deposition took place. In Dittonian times coarser detrital matter was swept into the basin in local torrents and sheet floods. These may have cut and followed definite channels in the marl below, and at times the banks of sediment were exposed above water level. The general scene is well shewn in the Geological Survey Regional Guide to the Central England District (fig. 5). As time progressed sedimentation became somewhat coarser being perhaps the result of the rising of the adjacent land and the growth of the streams transporting debris from this into the cuvette.

IV. SUMMARY.

An examination of the sequence between the Grey Downtonian and the Breconian of this northern part of the Anglo-Welsh Old Red Sandstone cuvette has disclosed some interesting features of the deposition of these beds. The Downtonian shews the onset of arid conditions, and with the disappearance of the Ludlovian marine faunas the beds are comparatively barren. The thin Grey Downtonian strata are followed by a thick group of marls. At the base of these the Ledbury Beds facies may be developed. Midway through the succession occur lenticular sandstones—the Holdgate Sandstones. Their local occurence is stressed.

Within the Dittonian the main Psammosteus Limestone of the Clee Hill district is regarded as a comparatively continuous bed which may, in the field, mark the base of the series. The sandstones and cornstones of this group shew signs of rapid and turbulent deposition, and alternate with thick marls. Indications of subaerial dessication are given.

The Breconian beds are, in the Clee Hills area, barren coarse sandstones with marls.

The basin in which these rocks occur is gently folded along Caledonian lines in the north and along north-south lines in its central parts.

The writer's thanks are due to Professor F. W. Shotton and Mr. B. B. Clarke, who have kindly read the manuscript and made valuable suggestions and criticisms.

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EXCAVATIONS AT SUTTON WALLS CAMP, HEREFORDSHIRE, 1948–50

By Miss K. M. Kenyon, M.A., F.S.A.

Read 24th October, 1950.

BEING AN INTERIM REPORT.

Sutton Walls (Pl. 1) is a hill-fort of impressive appearance, commanding the valley of the river Lugg, five miles north-east of Hereford. It occupies the whole crest of a low ridge of glacial gravel, some thirty acres in area on the summit, rising to 330 feet above Ordnance Datum or c. 140 feet above the flood plain of the Lugg.

The gravel of the hill-top formed an excellent dry site for prehistoric occupation. Unfortunately, it also provides excellent material for modern constructional use, and, as is clearly visible in Pl. I, i,1 it has suffered much at the hands of gravel-diggers. This use goes back many years, for there is no doubt that the hollow marked as The King's Cellar on the Ordnance Survey map is an old quarry, a fact confirmed by the modern quarry-men who cut into it. Modern use started in 1935, and was greatly accelerated during the war. Finds of pottery, querns, burials and pits were soon brought to the attention of the late Mr. George Marshall, F.S.A., the presiding genius of Herefordshire archæology. Mr. Marshall, Mr. F. C. Morgan, F.S.A., Miss M. Wight and many others kept constant watch over the site and rescued many finds. These proved the site to have had a rich occupation during the later part of the Early Iron Age. The finds, together with Mr. Marshall's notes, have been handed over to me for inclusion in my report. It was a great pleasure to us that Mr. Marshall was able to visit the site during the excavations in 1950, and it was clearly a great pleasure to him to see archæological work in progress on the site.

The camp is a scheduled Ancient Monument, but when quarrying reached such a scale during the war as to threaten

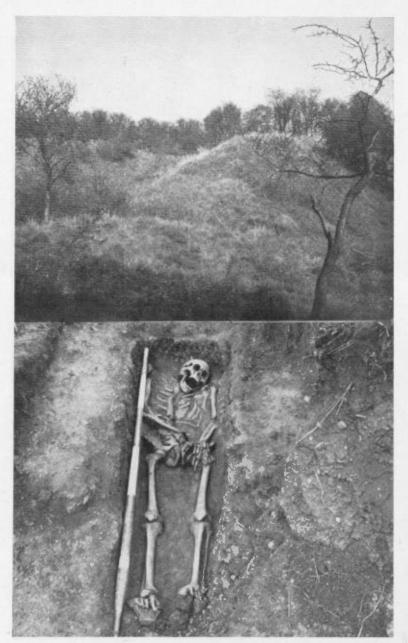




Photographs by G. C. Dunning and M. Wight

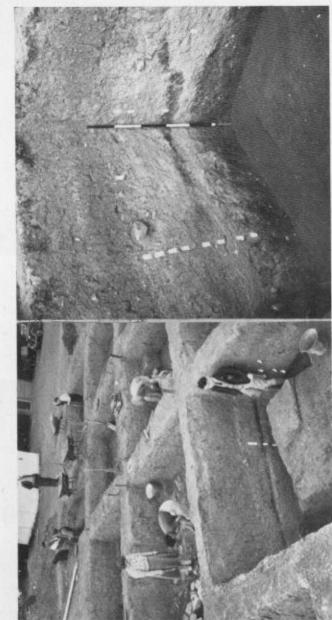
Pl. I, i. Air View of Sutton Walls from the South-East. Pl. I, ii. View Looking West from the West Entrance.

¹ The author's instructions as to the size and form of the plates unfortunately have not been followed.



Photographs by M. Wight

Pl. II, 1. WEST ENTRANCE FROM THE SOUTH-WEST. Pl. II, ii. BURIAL AT BASE OF RAMPART AT WEST ENTRANCE.



Photographs by M. Wight SHOWING ORIGINAL SURFACE PI III, 11 IN CENTRAL PIT, AND OVERLYING LEVELS.



Photograph by M. Wight Pl. IV. 1. Stone Paved Hut of the Roman Period.



Photograph by F. C. Morgan Pl. IV, ii. Corn Drying Kiln.

a large area of the site, the Inspectorate of Ancient Monuments of the Ministry of Works was unable to carry out excavations owing to shortage of labour. In 1948, however, when the continuing destruction was brought to the attention of the Council for British Archæology, the Ministry readily agreed to sponsor excavations, and I was asked to undertake them on its behalf. I wish here to express my gratitude to the Chief Inspector, Mr. B. H. St. J. O'Neil, F.S.A., and to the Inspector in charge of excavations, Mr. G. C. Dunning, F.S.A., for their help and interest. In the course of the work, I have been assisted by a large number of volunteers, mainly from the University of London Institute of Archæology, who have carried out all the more delicate excavation work, and much of the heavy digging as well. They are too numerous to mention individually, but their assistance has been invaluable. Many local enthusiasts also gave most valuable help, while Mr. Morgan and Miss Wight added to all else that they did to help the work and the workers the responsibility for all the photography. To them especially, and to all others, I wish to express my very real thanks. All non-local diggers, too, cannot say enough in praise of their hostesses in Marden, led by Mrs. Heath, Mrs. Jones and Mrs. Roese. Finally, but certainly not least, I must express my appreciation of the permission given to carry out the work by the owner, Mr. J. A. Gwynne, and of his interest in the excavations, an interest which has grown steadily as the work proceeded.

Excavation has been confined to the west end of the camp, the part immediately threatened by quarrying. It has been directed to the examination of the ramparts, the west entrance, and the small strip of the interior, along the west end of the north side, not already removed by the quarry, a strip already in 1948 much smaller than that shown intact in the air photograph (Pl. I, i) taken in 1944.

The camp was defended by a single rampart and ditch. In its present condition, the top of the hill forms an almost flat plateau, with no rampart upstanding towards the interior. Excavation showed, however, that originally the summit sloped away from a central ridge, with the rampart set appreciably down the slope, standing up prominently both towards the interior and exterior. Denudation and ploughing have filled in the hollow between the slope of the hill and the rampart with the material from the top of the rampart, to give the present-day flattened appearance. On the outside, the rampart today slopes steeply down to a flat terrace at the foot. Here again, original features are obscured. As constructed, the front of the rampart was vertical, held in place by a revetment of substantial timber uprights. Below this vertical face, the slope of the hill was probably accentuated by scarping, and was continued down into a ditch, the silting up of which has

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produced the flat terrace. The centre of the ditch was not completely excavated, and the original height of the rampart can only be estimated, but the overall height from the crown of the rampart to the bottom of the ditch at the place excavated must have been about 50 feet, and the overall width 110 feet. The defences were thus extremely formidable.

There are two original entrances to the camp, at either end of the long axis, of similar plan. That at the west end looks out (Pl. I, ii) over the valley of the Lugg, towards Credenhill, which is crowned by another great Iron Age hill-fort, no doubt the prehistoric predecessor of the Roman Kenchester. In their present state, the entrances consist of deep hollow-ways between the outward continuations of the ramparts (Pl. II, i). Excavation at the west entrance showed that much of this appearance is due to wear. As constructed, the entrance was flanked by vertical revetments to the inner side of the ramparts, forming a passageway 59 feet wide. This passage-way has been heavily denuded by use. The only surviving surface is 7 feet lower than the foot of the revetment, and is in fact the last surface in use, being shown by pottery to belong to the Roman period. Wear, probably both in the Iron Age and Roman occupation, has thus gradually eaten into the loose gravel of the hill, to form the present hollow-way. The original width of the entrance is surprisingly great. This may be part of the original lay-out, possibly to provide easy ingress for cattle, or there may have been a central feature, a bank or timber structure, which has either been worn away, or intentionally removed. No traces have so far been found of the gate, which may have been at the inner end, which has not vet been excavated, or may have been destroyed by denudation.

At the toe of one rampart was a burial (Pl. II, ii), unfortunately in a position in which the stratification gave no help as to dating. The chief interest lies in the fact that the man had apparently been killed by a sword cut, which removed a slice from his skull.

Inside the camp a sufficient area has been examined to give a fairly clear picture of the type of occupation. The dwelling sites, so far as the evidence goes, do not occupy the crest of the hill, but are concentrated in the lower areas between this and the north and south ramparts. They occupy great scoops or pits cutting down into the natural gravel. Three have been located at the rear of the north rampart. The greater part of the centre one has been excavated. Its dimensions are about 65 feet from east to west and 45 feet from north to south, with a maximum depth of 6 feet 6 inches below the surface of the natural gravel. The second pit lay 130 feet to the east. A considerable part of this was excavated; its dimensions were similar. The area between these two pits was trenched, and it was clear that there was no appreciable permanent Iron Age occupation between them. The

third pit was 200 feet to the west. It appeared to be similar in character, but it has only been trenched. The intervening space has not yet been investigated, so it is not known whether there are any more pits in this area.

Sections visible in the quarry face show that there are pits in a corresponding position along the south side of the camp. Portions of two have been investigated. Surviving sections in the centre of the camp, however, do not show any pits, and trenching in the one area at the west end which in 1948 still extended as far as the central ridge confirmed this absence.

A concentration of occupation in the more sheltered positions between the ramparts and the crest of the hill is not unnatural, for in cold weather the site is a bleak one. It does, however, seem probable that the association of the pits with the ramparts is an even more integral one, since in origin they were almost certainly quarry pits from which material for the ramparts was obtained. This is suggested by the fact that in all the areas in which cuts were made through the rampart, or in which a section is visible in the quarry, it consists of alternate layers of red clay and gravel. The red clay is the formation which underlies the gravel, at a depth of about 20 feet below the crest of the hill. It is into this stratum that the rampart ditch was cut, and the material from it would have provided no gravel. This must have come from the summit of the hill, and the most likely explanation of the origin of the pits is that from them was dug this gravel.

The great scoops thus formed would have provided additional shelter, and it was presumably for this reason that occupation was concentrated in them. As found, the underlying natural gravel was sealed by a very hard skin of a species of iron-pan, probably formed by chemical action between the gravel and the overlying occupation debris. This surface is shown at the bottom of Pl. III, ii. It is clear that there were structures of some sort in these pits, for a considerable amount of burnt daub from timber and clay walls has been found. A number of sockets of timber uprights have also been found, but not enough so far to make the plan clear.

Occupation in these pits was prolonged. Above the lowest surface there was a series of layers showing, in both the pits more completely excavated, six main stages in the occupation. These layers are visible as different coloured bands of soil in Pl. III, it. Some are also visible in Pl. III, i, which shows how the area of the pit was stripped in a series of squares, with baulks left standing between in which the different layers could be traced. The layer immediately overlying the bottom surface consisted of dirty occupation earth containing a great quantity of animal bones, the food debris of the occupants. Above that was a thick fill of clay, presumably because the lowest surface had become too

foul. Other layers in turn above this, some with well-defined hearths and layers of burning, gradually filled in the pit, until it was level with the surrounding surface. The very large pot shown on Fig. 1 was found crushed on a hearth of level III in the centre pit.

All these layers contained a considerable amount of Iron Age pottery. Above the pits at the stage when they had been filled flush with the adjoining area, were structures belonging to the Roman period, which will be described below, and which seem to succeed immediately to the Iron Age occupation.

Specimens of the Iron Age pottery are illustrated on Fig. 2. The forms of the vessels are somewhat limited, being variations of a plain jar-form with sides slightly concave externally. The most characteristic feature of the form is a rim which is thin at the lip, with a swelling below, as if to form a seating for a lid (though in point of fact, no lids were found). More characteristic still is the decoration. This consists of stamped patterns immediately below the rim. The stamps vary greatly, and include a type which may look like repeated SS (Fig. II, iii) or may have a plumper silhouette and look like a line of stylised ducks (Fig. II, i).

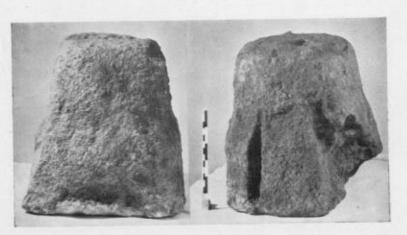
This "duck" pattern is known on a number of sites in the Severn Valley and Cotswolds. It has been studied in connection with the pottery, very similar to that at Sutton Walls, found at Bredon Hill, Worcestershire.¹ In this report, it was shown that in Britain it occurs in Cornwall, and in sites which could have been reached by people coming up the Bristol Channel and the Severn, while similar stamped pottery on the continent shows connections with Brittany and Portugal. At Bredon it was shown that they arrived between about 100 and 50 B.C.

Sutton Walls has not yet produced very close dating evidence, but such as there is, in the brooches and other objects, and in the occurrence of Belgic pottery in the later pre-Roman levels, fits in with this dating. The original occupants of the site must have been a band which branched off from the main group, and came up the Wye and the Lugg, and which, like the groups in the Severn Valley, settled in a site commanding the river.

Presumably the people of whom the "duck" pottery is thus characteristic had crossed to Cornwall from Brittany. They form one of several groups which arrived in South-West Britain at this time, probably driven out from their continental homes either by the Teutonic raids at the beginning of the first century B.C. or by the Roman expansion of the middle of the century. They brought with them some form of the La Tène culture of the continent, known in this country as Iron Age B, but all with their own variations of equipment and pottery.



Photograph by M. Wight Pl. V. i. Infant Burial of the Roman Period.



Photograph by Institute of Archaeology
Pl. V, ii. IRON ANVIL.

¹ Thalassa Hencken, Archaelogical Journal XCV.

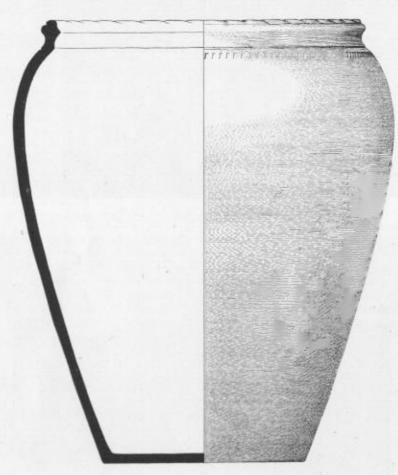


Fig. 1. Pot found crushed on hearth in Central Pit. Height $20\,$ inches.

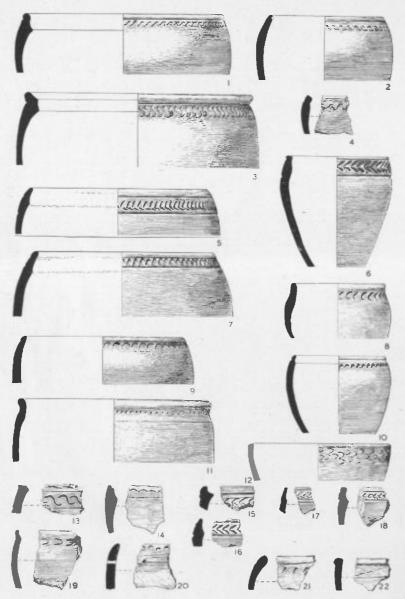


FIG. II. EXAMPLES OF POT FORMS AND PATTERNS. Quarter natural size.

An interesting problem in connection with the particular group of people in question, as yet unsolved, is the extent of their penetration up the line of the Welsh Marches. Up the Severn they did not get as far as the Wrekin, where the pottery was allied to that of the earlier Iron Age A people of southern and south-eastern Britain. Up the Lugg, they did not get as far as the south Shropshire uplands, where sites such as Titterstone Clee were occupied by people who seem hardly to have used any pottery at all, and to have had an entirely different kind of culture. The excavation of more of the fine hill-forts of Herefordshire is needed to establish the extent of the penetration of the Sutton Walls people northward, and the scale of their occupation of the district.

The number of layers of occupation in the pits at Sutton Walls suggests occupation over a prolonged period. This would agree with an initial date in the first century B.C., as at Bredon. During this period, the ramparts were strengthened and heightened on at least one occasion. In all the cuts made through the ramparts, there appeared to be two main layers of material, while in a section visible in the quarry face, the lower layer was sealed by a dark band, which presumably represented a growth of turf. There does not appear to have been much variation in the native culture during the occupation, but this conclusion is provisional, as work on the material has not yet been completed. In the later levels, however, Belgic objects appear, notably a few pots and the base of a fine shale vessel. This stage must belong to about the second quarter of the first century A.D.; there is not enough evidence so far to say whether such finds indicate actual conquest or merely trade contacts.

As has already been said, the uppermost layers over the pits, at a stage when their filling had reached the level of the adjacent surface, belong to the Roman period. Both the stratification and the pottery suggest that the layers datable to the Roman period succeed direct to those in which there are only Iron Age finds. The layers are in fact Roman only in the sense that the occupants were using objects of Roman type, including Samian pottery, but these occupants were probably the descendants of those of the Iron Age. The pottery includes much that is datable to the second century A.D., but little to the first; it was probably only in the second century that effective Romanisation reached people in such comparatively out-of-the-way districts. There is also a considerable amount of pottery made in the native tradition, but copying Roman forms. The sequence of pottery continues unbroken to the fourth century A.D. Three coins were found, one each of the second, third and fourth centuries.

The structure overlying the central pit was a stone-paved hut (Pl. IV, i, and Pl. III, i, centre left). Little of the actual structure

of the hut survived, but two stones with sockets (Pl. IV, i) must represent a doorway. At two points immediately outside the hut were infant burials (Pl. V, i), and there was another further away. Such infant burials outside buildings was a common practice in the Roman period.

Over the eastern pit was another type of structure well-known on Roman farmstead or hut sites, a corn-drying oven (Pl. IV, ii). This consisted of sunk channels on a T-shaped plan, in which the air was heated by a furnace outside the excavated area. The corn, which was harvested unripe, presumably because of difficulties with the climate similar to those experienced today, would have been laid on a floor, which has since disappeared, to be parched.

The finds from the site, in addition to large quantities of pottery and bones, have been numerous. Ornaments include a bronze bracelet and five fibulae of the Iron Age, besides Roman specimens. A crucible with traces of bronze shows that this was worked on the site. There was also a considerable quantity of iron, including sickles, knives, a dagger, an arrowhead and nails. Most interesting of all was an iron anvil (Pl. V, ii), $10\frac{1}{2}$ ins. high, and of very great weight. This is one of the finest pieces of prehistoric iron found in this country. It, and a considerable amount of slag, shows that iron also was worked on the site.

Excavation, though on a comparatively limited scale, has thus shown that Sutton Walls is a site of very considerable interest. Its Iron Age occupation is rich, and has produced the best evidence yet found concerning this particular group of people. Moreover, evidence of occupation of such a site throughout the Roman period throws new light on the Romanisation of the countryside. It is to be hoped that further excavation will provide still more information on the history of the site.

THE STEWARD'S ACCOUNTS OF JOHN, FIRST VISCOUNT SCUDAMORE OF SLIGO (1601-1671) FOR THE YEAR 1632.

Transcribed with notes by F. C. Morgan, F.S.A.

The following accounts for the year 1631-2 kept by the steward of John, first viscount Scudamore of Sligo, were found a short time ago among a number of miscellaneous documents in a small box in the Cathedral Library, Hereford. How they came there is unknown. Unfortunately they were in a dilapidated condition, but after careful repair at the Public Record Office it has been possible to decipher most of the entries.

The Scudamores were important people in Herefordshire for many generations. Sir James Scudamore, the viscount's father, was the pattern of chivalry in Spenser's Faery Queen as Sir Scudamor; he is also commemorated in Higford's Institutions of a Gentleman. He married Mary, daughter of Sir Thomas Throckmorton, of Tortworth, Glos., widow of Sir Thomas Baskerville. He died in 1619 before his father, who outlived him until 1623.

John Scudamore, created baronet in 1620 and Viscount in 1628, succeeded his grandfather in the estates at Holme Lacy. Known locally as the 'Good' lord Scudamore he was a zealous Royalist, attached to the English Church and benevolent to the poor. He repaired at his own expense the ruined church at Abbey Dore (the only Cistercian church in use in England), and restored alienated tithes of several churches acquired by an ancestor. Later money accounts of the Viscount are in the City Library, Hereford; a description with extracts from these appeared in the Transactions of the Woolhope Club in 1924, pp. 119–129.

Shortly after his creation as a baronet Scudamore retired for a time to Holme Lacy, and is said to have greatly improved the apples of Herefordshire, and to have introduced the Redstreak variety from abroad, called by Philips 'the Scudamorean plant' (Cyder, bk. i, line 506). He was appointed ambassador in Paris in 1635.1

The mansion house of Holme Lacy had been rebuilt in 1545-6 by Sir John Scudamore, grandfather of the viscount, but apparently the surroundings and water supply were being improved in 1632. "Crumpe's waterworkes" were for the household use and must not be confused with the "Waterworks" of Rowland Vaughan of Newcourt, Herefordshire, of a few years earlier, which were purely for agricultural land 'drowning' purposes. Other improvements at Holme Lacy were the 'Terras

¹ See Woolhope Club Transactions, 1901, pp. 184-188, for a longer account of the Viscount and his work at Abbey Dore.

Walke', the 'Bouleinge Green', and outbuildings. There is a drawing of the kitchen entrance to the mansion by Dr. Munro in the Hereford Art Gallery. The present palatial mansion was built by the second viscount, who succeeded his grandfather in 1671. It is now the property of the County Council by gift of a member of the Wills family, and is used as a mental home.

The journey to London, for which the expenses are recorded on pages 49-57 of the manuscript, took nearly four days. The party stayed one night each at Gloucester, Farringdon and Henley on the way there. The amount of food consumed is carefully recorded, as also are the alms distributed during their progress, and the money spent while in London.

References to the waits and the music on pages 38 and 44 probably refer to payments to the Hereford official musicians, to whom there are many references in the city archives.

For the notes upon the articles of costume and textiles the writer is indebted to Mr. J. L. Nevinson, late of the Victoria and Albert Museum. These add very much to the interest of the accounts.

Accounts of the Steward of the Rt. Hon. John Scudamore, First Viscount Scudamore, at Holme Lacey, 1632

A 11	SCOUNT SCODAMORE, AT HOLME LACEY, 1632			
P. 1		li	S	d
An]nual] (?) [or	Tho. Webb his passage at Brackly going to			
Special]	my Lady Scudamore wth her rent	0	0	
Payments	his bayte there	0	0	
	his supp and horse meat at Bristow	0	0	
	his breckfast there	0	0	
	given to Baskervyles man	0	0	
	his bayte at Bristow returning	Õ	Õ	6
	his supp and his horse at Aust' returning	ő	ő	7
	his management and the state of	0	ő	3
	at anhithmen for an accite-		0	O.
	half a mania of anta thank	0	0	
	Mr. Whittingtons distant and and and	0	U	4
	Mr. Whittingtons dinner and supp and myne			_
	when we paid my Lady Por and Mr.	0	4	0
	Blackledge			
	a quart of burnt sack there	0	1	
	or breckfasts and a pinte of (?)			
	for fyer			
	nay for or norses			
	1 bush of oates	0		
	a mash	0	200	
	given the chamberlains and oslers	0		
	gold that was to light	0	8	
	money that wanted in 2 bags	0	1	
	John Wilcox his journey to my Lady Scuda-			
	more being forth 3 nights	0	1	
P. 2)			
ginning at St.	pd Steeven Price his expences goeing from			
Mary day	London to my Lady Scudamores	0	10	
and y carely	Louis to my Lary Schuamores			

¹ Gloucestershire.

1632

					li	S	d
	Pd Tho. Webb that he paid f	or 2 ac	quitta	nces 🔪	0	1	0
	at the Bishop of Hereford	40.4	1	S	()	•	
	his expences there and his he			u.	0	0	5
	to Bennet of Heref			112	0	5	0
	Henry Weaver his expences g		my L	ady)	0	6	6
	Scudamore	***		\	_	Ť	
		Cot	***	***	1	2	11
P. 3							
Apparrell	4 dosen of black silke butto		***	***	0	1	4
	3 dosen of red silk buttons		***	444	0	1	
	3 qr of a yard of ribond		110	111	0	0	3
	white thrid			1111	0	0	2
	for lineing yer Lohps drawers		***	344	0	1	0
	for mendeing ye black shute a		te	***	0	0	9
	2 yardes of gallowne lace		146	10.00	0	0	6
	buttons for yor handcarches	8	441	***	0	1	0
	thrid to make them	***	***	111	0	2	0
	3 elles and a halfe of hollan	id at 9	s, the	ell	1	11	
	making shirtes and half shir		***	214	0	6	
	7 payer of white gloves		***	444	0	9	-
	5 payer of black gloves	12.4	444	1988	0	4	4
			649	***	0	7	0
	1 payer of sturrop stock[ing	[S]8	***	***			
	3 yardes and a half of Scar	let		***			
	5 yards and a half of bayes	3	***				
	9 ounces and di of gold and	silver [lace]	***			
	1 ounce of scarlet silk (?)	-	1000	79.44	0	2	6
	2 dosen and a half of (?)	20.4	***		0	4	2
	1 neck button4	5.44	.000	CREEK.	0	I	0
	for drawing the scarlet coat		470	444	-		
	for makeing it	10.	44.4	1444	0	6	6
	3 yards and di of broad clo		471			16	0
	5 yards of bayes at 3s 4d		***	200		16	
	3 dosen and di of buttons			***			7
	1 neck button			***	-0	0	10
	3 quarters of silke					1	8
	for drawing the grey coate				0	2	0
	for makeing it				- 0	5	0
	6 yards of black bayes at 3s	10d va	rd		1	3	0
	black silke	2000 300			0	0	2
	for putting it in the black			***	0	1	6
		· · ·			0	12	0
	a black hatband and ribone	1		144	0	3	ŏ
				***	ő	3	0
	I dosen of flaunderes band			0.00	V	0	17
	6 dosen of shirt buttons	111	4 * *	1511			

¹ A useful reference to show drawers as an undergarment, not as over-stockings. *See* also Howard of Naworth accounts in Surtees Soc., Vol. 78 (1877), pp. 121, 160, 193 (c. 1620).

* Ornamental tassels for the corners.

³ Presumably overstockings. Mr. Nevinson suggests they had no toes and heels, but only a strip under the instep (distinguish from boothose, footed: vide later, p. 4.

It has not been settled what this is. Cloaks and cassocks in portraits do not show a large and quite expensive "worked" button at the neck. Possibly the neck cords might have a round wooden slide worked over with silk, allowing a fastening like a garter.

^{*} Gloucestershire.

			li	S	d
D /	2 cambrick fringed Ruffes ¹ at 1 ^{li} 13 ^s the p and 4 payer of Cufes	eec }	3		
P. 4	1 laced Ruff ² and 2 peyer of Cufs	100	2	8	0
	1 payer of legs to boothose tops		0	2	- 0
	2 payer of Spanish leather boots and 3 pa of gallosies	yer	2	3	0
	gilding and trimeing the gilt sword		1	2	-0
	russeting the black sword		0	3	-6
	a new black handle, and scaberd wth a false	e one	0	4	6
	glaseing and making clean the blade	* * *	0	1	0
	3 payer of boothose footed	104	0	1	6
	silke and thrid to mend yor clothes	***	0	0	4
	for binding Mr. James his hatt for makeing Mr. James his coat and stock	111	0	2	6
	payer of shoes for Mr. James		0	6	0
	er of shoes for Mr. Rowland	111	0	1	0
	Tot.	***	31	5	4
P. 5 blank					
P. 6 Apparell at					
St. Maryday					
1632				5	0
	Holland to make yor Lordhy Cuffes		- 0		
	Holland to make yor Lord ^{hp} Cuffes mending the strapes of yor bootes	***	0	2	2
					10
	mending the strapes of yor bootes nutmegs for yor hayre? 18 yards of green chamlet at 7s 6d the yard	***	0	2	
	mending the strapes of yor bootes nutmegs for yor hayre? 18 yards of green chamlet at 7s 6d the yard 2 yards and half of florence satterne?	***	0	2 0 15 15	10
	mending the strapes of yor bootes nutmegs for yor hayre? 18 yards of green chamlet at 7s 6d the yard 2 yards and half of florence satterne® 15 yards of Caprile® at 5s 6d the yard	***	0	2 0 15 15 2	10 0 0 6
	mending the strapes of yor bootes nutmegs for yor hayre? 18 yards of green chamlet at 7s 6d the yard 2 yards and half of florence satternes 15 yards of Capriles at 5s 6d the yard 4 yards of duch fustian 10 at 1s 3d the y	***	0 0 6 1	2 0 15 15 2 5	10 0 0 6 0
	mending the strapes of yor bootes nutmegs for yor hayre? 18 yards of green chamlet at 7s 6d the yard 2 yards and half of florence satterne 15 yards of Caprile at 5s 6d the yard 4 yards of duch fustian at 1s 3d the y 13 ounces gr and half of lace at 2s 6d the or	***	0 0 6 1 4 0	2 0 15 15 2 5 13	10 0 0 6 0 6
	mending the strapes of yor bootes nutmegs for yor hayre? 18 yards of green chamlet at 7s 6d the yard 2 yards and half of florence satterne 15 yards of Caprile at 5s 6d the yard 4 yards of duch fustian at 1s 3d the y 13 ounces gr and half of lace at 2s 6d the or 4 ounces of silke at 2s the ounce	***	0 0 6 1 4 0 1	2 0 15 15 2 5 13 8	10 0 0 6 0 6 0
	mending the strapes of yor bootes nutnegs for yor hayre? 18 yards of green chamlet at 7s 6d the yard 2 yards and half of florence satterne ⁸ 15 yards of Caprile ⁸ at 5s 6d the yard 4 yards of duch fustian ¹⁰ at 1s 3d the y 13 ounces gr and half of lace at 2s 6d the or 4 ounces of silke at 2s the ounce 1 ounce gr of gallowne at 2s the ounce	ince	0 0 6 1 4 0 1 0	2 0 15 15 2 5 13 8 2	10 0 6 0 6 0 8
	mending the strapes of yor bootes nutnegs for yor hayre? 18 yards of green chamlet at 7s 6d the yard 2 yards and half of florence satterne® 15 yards of Caprile® at 5s 6d the yard 4 yards of duch fustian¹0 at 1s 3d the y 13 ounces gr and half of lace at 2s 6d the or 4 ounces of silke at 2s the ounce 1 ounce gr of gallowne at 2s the ounce 30 yards of loope lace at 2d ob yard	ince	0 0 6 1 4 0 1 0 0	2 0 15 15 2 5 13 8 2 6	10 0 0 6 0 6 0 8 3
	mending the strapes of yor bootes nutmegs for yor hayre? 18 yards of green chamlet at 7s 6d the yard 2 yards and half of florence satterne ⁸ 15 yards of Caprile ⁸ at 5s 6d the yard 4 yards of duch fustian 10 at 1s 3d the y 13 ounces gr and half of lace at 2s 6d the or 4 ounces of silke at 2s the ounce 1 ounce gr of gallowne at 2s the ounce 30 yards of loope lace at 2d ob yard 3 grose of buttons at 4s the grose	ince	0 0 6 1 4 0 1 0 0 0	2 0 15 15 2 5 13 8 2 6 12	10 0 6 0 6 0 8 3
16.9.5	mending the strapes of yor bootes nutnegs for yor hayre? 18 yards of green chamlet at 7s 6d the yard 2 yards and half of florence satterne® 15 yards of Caprile® at 5s 6d the yard 4 yards of duch fustian¹0 at 1s 3d the y 13 ounces gr and half of lace at 2s 6d the or 4 ounces of silke at 2s the ounce 1 ounce gr of gallowne at 2s the ounce 30 yards of loope lace at 2d ob yard	ince	0 0 6 1 4 0 1 0 0	2 0 15 15 2 5 13 8 2 6	10 0 0 6 0 6 0 8 3

Such as one in Hull Museum (Filmer collection).

* Such as one in fifth Museum (Filmer coheculon).

* Presumably Morocco-goatskin.

* Unusual spelling of galosh. See references in M. Linthicum, Costume in Elizabethan drama, pp. 255-7. Probably at that time the galosh was an overshoe rather fuller than the later clog. "Patten" is probably best kept for the same thing with a wooden sole or an iron under (see Guy's Trivia). If a loose overshoe of this sort is worn by itself (i.e., not over another shoe) it becomes a startup.

5 Query brother of the Viscount, b. 1605.

⁶ The only Rowland recorded in the pedigree in Robinson, Mansions and Manors was an infant b. 1631, d. 1632.

7 For powder? See also p. 8.

No other reference to this material is known. Satin would not necessarily come from Florence.

Caprile is not known to Mr. Nevinson. Is it a spelling of cypress used for caps?

10 i.e., German. For Fustian see Linthicum, p. 106.

					13		.1
	straight lineingl for the shut				li	5	d
	streight lineing for the shut belly peeces, hookes and ey			***	0	1	0 2
	sattern to line the dublet co	91		***	0	1	4
	seering candle and pastbord			***	0	0	5
	for makeing of the shute					0	0
	1 0 11				3	5	0
	2 faleing bandes				2	5	Ŏ
	1 payer of boothose tops			***	0	5	6
	1 payer of spurs		4		0	3	0
	2 payer of spannish boots &				2	0	0
	2 payer of neats leather bootes			***	1	6	0
	2 payer of shoes and gallosis				0	13	0
	2 payer of neate gallosies		122		0	6	0
	2 boxing combes		144		0	1	6
	a scabert for yor staff	***	***	***	0	4	0
	1 dosen of white gloves	***	***	444	0	16	0
	2 boxes	***		144	0	2	6
	a porter				0	-0	6
	pd for the carriage downe of	the box	es	1.1.1	0	7	6
16.5.5	my expences to London	***		100	2	2	0
P. 7 blank							
P. 8							
Apparell at St. Mary day							
1632	5 elles of holland at 3s the	ell		***	0	15	()
	2 elles of holland at 3s 4d t	he ell		***	0	6	8
	2 bundles of lace from Lond	lon			0	0	9
	3 ounces of nutmegs for pov	vder		119	0	1	3
	for dressing and lineing a be	eaver	4 6 4		0	2	9
	2 bundles from Lonon (sic)		114	100	0	1	0
	for lineing yor Lordham hatt		144	241	0	1	3
	lace for Cuffes	F 4 T			0	0	10
				***	0	0	10
	a packet from London		***	100	0	0	2
	to a man that came from Glo		twice v	Map)	0	2	6
	lace	10.4					
8.7.6	pd for a penknife			0.13	0	1	0
	22 ounces 3 gr of gold and sil		e at 5s	ba j	6	13	6
	the ounce)			
	36 dosen of buttons at 10d	the de	000		1	10	0
	4 dosen for the coat at 2s	the do	3611	***	0	8	0
	1 ounce and half of silke			***	0	3	0
	for altering the green shute	-6.		***	0	12	0
				4.4.0	0	0	4
	for altering yor stuff coat			***	0	3	0
	half an ounce of silke to do			111		1	2
				***	0	2	6
	mending 3 shutes making 8 payer of boothose	414			0	2	8
	2 payer of linnen drawers			44-	0	0	8
	payor or minon diamors	***	***	***		4	

¹ Not known to Mr. Nevinson. Query paste board. Straight should mean narrow, see straight canvas, p. 34. The usual term for hemming and seaming is "fine-drawing".

* Stiffenings for the sides of the doublet front. Illustrated in Connoisseur, November, 1934.

³A hat made of beaver fur: the beaver brush was a soft one for use on this.

	mending yor green dublet	***	***	li s d 0 0 10
	3 ounces of nutmeg	***	110	0 1 3
	the watchmaker	***	110	0 2 0
4 7 7	3 payer of shoes and gallosies	***	140	0 19 6
	the carryage of them downe	***		0 0 8
	Tot	***	141	45 9 11

Pp. 9 to 14 Buildings¹

Here follows a long list of wages paid to sawyers at 11d. per day, carpenders (sic) at 1/-, 10d., and 9d. Francis Stretton, who was to have been a master mason, received 1/- daily, as did Roger Simons. Other workmen were John Simon, Henry Caldicott, Richard Griffiths, Roger Brewer, Thomas Ball, Richard Jones, Wm. Ongnion, Wm. Phillips, John Tomlins, Thomas Morris, Thos. Shepard, Jenkin Gough, Richard Ball, John Gilbert, Richard James, Steeven Powell who were paid 8d each daily. Wm. Simons had 10d. and 8½d. daily. Joiners whose names are not given received 1/-.

Items that record the prices of building materials are:—2 dozen rings and wire 7d., 200 eight penny nayles 1/4 (many more were bought), 3 seams of lyme 2/-, 600 laths for the stable 1/6, 100 spike nayles 1/-, 200 boords 12/- (?), hinges for the round table 2/3, 300 lath nayles 6d., and 2 payer of cross garnills 5/-.3

Dawbing the new stable cost 6/6, quineing it 6d., steeling and sharpening 2 pickaxes 7d., dressing a share and coultyerne [coulter] 1/2, gudgeon and raves for the wheelbarrow 2/3. Morgan Plummer was paid 4/2 for 10 feet of glass, hinges for the stable 2/8, hookes and eyes (for fastening a door or other thing?) 2/6, a lock, key and staple for Cornwall's chapel 3/-. Nine drams of straw were used to thatch the stable but the cost is illegible, and for paleing the garden Roger Simons received 30/-.

P. 15		- li	S	d
Carriages	carryage of lres [letters] to London		0	
	more lres	0	0	6
	carryage of a Pye to London weighing 40lb ³	0	3	4

¹ The stable, woodhouse, "bouleing green" (which cost £6 15s. 0d.), etc.

² Cross-garnet. A shaped hinge, with the vertical part fastened to the door jamb and the horizontal to the door. This is the earliest recorded use of this word.

*It would be interesting if the contents of this huge pie were known. Mr. W. H. Howse has sent me the recipes for two large pies of the 18th century, probably similar to that mentioned in these accounts. For an inn in Chester in 1790:—48 lbs. flour and 18 lbs. of butter for the crust, a quarter of pork made into mincemeat for the bottom, over that 3 geese, 2 hares, 1 turkey, 3 partridges boned and a neat's [ox] tongue. In 1792 a lady of Ellesmere made a pie consisting of 20 lbs. of flour, 11 lbs. of butter, a goose, a turkey, a hare, a couple of chickens, a couple of woodcocks, a couple of pigeons, a brace of partridges and 2 lbs. of forcemeat!

				li	\$	d
	more lres	***	***	0	0	2
	more Ires from London	***	***	0	0	6
	more lres to London	***	***	0	0	6
	2 packets from London	***	***	0	0	10
	a nother packet from London			0	0	3
	more lres from London		***	0	0	6
Mary Justin	for bringing downe yor Lohps staf		***	0	0	6
				0	7	7
P. 16				1	7	11/2"
Carriages	for lres to London	***	***	0	1	0
				0	1	0
				_		

P. 17 blank

Pp. 18 to 28 are taken up with the amounts paid for the water supply to Holme Lacy, though pages 19, 21, 23, 25 and 27 are blank. As most of the entries from 18 to 24 deal with wages these are not printed in full. In all the sawyers worked for 24 days, and for unspecified work various men received pay for 520 days. Evidently it was a costly and lengthy proceeding to bring the water from somewhere not stated.

Other entries on these pages include payments for lime 29 barrells £1 · 4 · 11, the smith at Hampton for 253 pounds of iron at 4d. the pound, and the smith at Winter's Cross received £2 · 7 · 4 for 190 pounds, 9 quarts of tar 4/6, 22 pounds of pitch 5/6, $4\frac{3}{4}$ bushells of hair 3/-, 1,100 lath nails 2/-, 860 spike nails 8/9, 200 double spike nails 4/-, 1,000 8d. nails 6/8, 300 stone nails 1/-, 200 clout nails 1/-, and 200 other nails 1/8. Rason [rosin] (5 pounds) and ockam [oakum] (3 po.) cost 3d. per pound.

Samuel the tyler was paid 4/- for scrubbling 1,000 tyles and 1/6 for 1,000 pins for securing the tiles to the roof. He worked for four days tiling for 2/4 (7d. per diem), one son at the same rate, another son for 4d. daily, and his man for 6d. daily, four days each. Leather and nails for the 'plump' cost 1/11, Tho. Ades was paid 2/- for 7 bolts of iron, Horne and his man took two days to daub the water house at the cost of 3/2.

Evidently the pump was made of elm as the carriage of two loads cost 7/4, Esekeill² the borer had no less than $£7 \cdot 3 \cdot 0$, with 5/- for his boy and 3/4 for a bit. Other fittings were the brazen suckers $£2 \cdot 10 \cdot 0$, 6 brass cocks $£1 \cdot 8 \cdot 8$, leather 14/-,

¹ Pumps were frequently so called in Herefordshire. For an article on wooden pump making, with illustrations, see *Transactions* for 1942, pp. 7-12.

The pump maker; the amount paid seems to be for the skilled work of boring the tree trunks. There were usually several lengths fitted together. One pump rod in Hereford Museum measures 43 ft. 11 in.

and 8 rings, probably to bind the joints of the pump, 4/8. For laying the pipes Bartholomew Taylor had $£4 \cdot 10 \cdot 3$ which included his compensation for loss of moulds.

An additional 317 pounds of iron also was bought at either 3d. or 4d. per pound. A water trew was repaired for 1/10. During the progress of the work some of the workmen were lodged at Winter's Cross and at Bailiff Taylor's for which 8/— was paid. Included in these expenses was 2/— for the footboy's two journeys to Cicester.²

P. 29*

The Severall Totals of this booke Collected into one place for the whole yeare:

					li	S	ď
Annuall payments		***	***	***	1	11	-8
Apparell	100	***	***	444	29	11	9
Bath journey					7	2	2
Building the wood ho	use			***	5	19	7
Building the [Terras]	walke		***	***	27	18	0
Building the ? ? ?			444	144	2	19	2
Building the ? ?		der .	***	222	2	18	7
Building in the garder	n	***		***	- 5	13	9
Building the ?		***	***	***	10	6	10
Building pitc.	hing	***	***	***	3	7 2	dos
Books		***	***	***	1	5	4
Th. 31		***	***	***	5	0	2
Carryages		***	***	***	0	12	9
Crumps water worke			201		6	8	10
Doores Church	***	***	***	***	0	8	0
footboy		***	***		2		10
Funerall and mournin	g ⁶	***	***	***	79	3	0
Fuell	***	***	***	***	0	10	0
Gardening				***	1	17	0
Gifts		***			30	10	2
Household furniture		***	***	***	3	13	4
straingers				***	1	9	10
the little of the same and the same					7	- 3	8
					0	11	10

Other amounts, the particulars of which are torn off the page, are £11 10s. 9d., £6 12s. 14d., £5 5s. 0d., £1 6s. 8d., £5 7s. 10d. Remainder missing.

P. 30 blank

P. 31	2 gardinors 8 daies apeece 2 gardinors 11 daies at 3d the day	0	\$ 4 2	0
	Remainder missing			·

¹ The Hereford name for a trough. ² Cirencester.

Some pages appear to be misplaced.
4 This amount differs from the totals of the items on page 10. Is it in addition?

See page 32.
Probably for the funeral of the Viscount's mother who died 17th October, 1632, and was buried at Sunningwell.

P. 32		li	s	d
	Roger Simons 9 daies at doore1	0	9	0
	Steeven Powell 8 daies there	0	8	0
	Wm. Simons 6 daies there	0	6	0
	a clapp(er) workmanship and baldring of a	0	6	0
	bell there			~
	the nines to fitt the schools	0	6	0
	the bellrope and payles	0	4	0
	a mason for placeing the font and stopping a			~
	window	0	7	4
	a seame of lyme	0	1	2
	sawyers for saweing timber for the Comunion table	0	2	0
	labourers to helpe the sawyers	0	2	0
	the Carpenter	0	2	0
	Tot	2	14	6
P. 33		-		-
Funerall of				
my Uncle	to Walter Peirce for the lone of black bayes			
my oneio	that was in the church	- 0	10	0
	it wanted 3 qr of a yard in measure	0	1	6
		_	^	_
	Tot	0	11	6
P. 34		-		-
Apparrell	3 yards and half of kersey for the footmans			
at St. Mary		- 0	15	9
day 1632	3 dosen of lace at 2s 8d the dosen	0	8	0
	3 qr of one ounce of silke	0	1	7
	3 yards and half of dowlas at 13d p yard	ő	3	á
	1 ell of streight canvas	ő	1	9 5
	3 OF OF FAURY TASKS	0	2	ŏ
	3 dosen of buttons	0	0	9
	hookes and eyes and pockets	0	0	6
	belly peeces tape and pastbord	ŏ	1	0
	for making his shute	0	6	8
	a payer of shoes and stockings	0	3	6
	a payer of shoes	0	1	6
		2	6	5
			U	-

¹ The great restoration of Abbey Dore church was begun in 1632. In the Woolhope Club Transactions for 1948, pp. 235-6, there is an account of documents in the British Museum (Chancery Master's Exhibits, D.19) concerning the contract with David Addams of Ross, mason, to build the steeple, etc., and specifications for John Abel's woodwork. It is said that there was "38 foot difference betweene Abell and Simmonds measure of the Isles". See also Transactions for 1900-2 for paper by Mr. T. Blashill, who states that Francis Stretton, who appears so often in these accounts, contracted for ceiling, plastering, and whiting the roofs and walls.

2 The stone altar is now replaced in the church.

Scoarse linen used for servants' clothes only. (See Linthicum, p. 97.)
Probably a silk and wool mixture: a small quantity perhaps used for cuffs or facings.

For fastening the breeches to the doublet.

	1	P. 35 blank					
	F	2. 36			li	S	
170	_	rall at					
		lary day	1 yard and qr of black cloth at 10s 6d	thel			
	32	lary day	yard for a hearse for Mr. Rowland ¹		0	13	
10	02		2 yards of black bayes at 2s 2d yard	-	0	4	
			3 dosen of Curnation Ribond ³	***	0	6	
			5 doscii of Cumation Idpond	455	-	-	
			Tot	Metals	1	3	
	Т	27					
~:	-	2, 37	given a poore women at church		0	0	
JI	fts		given a poore woman at church	***	-	0	
			a poor man ay the door	***	0		
			to Sr Giles Bridges boy	***	0	0	
			lent yor Lohp to give Kingman	***	2	0	
			a payer of shoes for the foole	140	0	2	
			a payer of stockings for him	444	0	1	
			a boy that came from Ballingham		0	0	
			to poore at the doore		0	0	
			to a souldier		0	0	
			to Nicolas Lanes man		0	2	
			to Georg the millard [miller]	200	0	1	
			to a poore woman at hoarwithy	101	0	1	
			to divers poore		-0	0	
			7 yards of linen cloth at 11d the yard for sl				
			for the feels	}	0	6	
			for thrid and makeing them		0	0	
					0	0	
			to Mr. James		0	1	
			a poore woman at the doore (?)	***			
			a boy that brought lrs from Heref	***	0	1	
			a maide at the doore	4 , 4	0	0	
			to an Irish man		0	5	
			to Thomas Saymore	***	0	5	
			4 souldiers	***	0	2	
			a man of fownhope			?	
			to the musick on new years day	***	0	2	
			to welch Thomas	444	-0	1	
			to Kingman	111	0	5	
			to mor of Wilton		0	2	
			the boatman of Cary mill [Ballingham]		Õ	1	
			poore at the doore		0	ô	
			to the Prisonors of the comon goale of h		0		
				~	2	0	
			by Phillip Trehearne ³	5	- 1	10	
			16 poore of sellick parish	***	1	12	
			to the drumer		0	2	
			2 criples at the gate		0	1	
			2 other poore		0	0	
			to Mr. Aldernes man when he brought	the	1	0	
			Lease of Sellick	\$	1	U	
			to mor of Wilton		0	2	

¹ An infant son.

² Mr. Nevinson cannot explain why carnation ribond was used at a funeral. The Archdeacon of Hereford suggests that it was perhaps a sign of innecessity.

sign of innocency.

^a Phillip Traherne was mayor of Hereford in 1643. He was uncle to Thomas Traherne the poet, and gave a copy of Shakespeare's works to the Vicars Choral of the Cathedral. He was a strong Royalist.

4 Sellack.

P. 38						
Gifts at				li	S	Ċ
St. Mary day	to poore at the gate	*** *		0	0	6
632	2 souldiers		** ***	0	2	-{
	to a bedlam			0	1	(
	a man that brought a lre	411 4	441	0	0	6
	a poore boy			0	0	6
	to George the miner	*** *		0	2	.6
				0	2	(
	2 poore men at the gate			0	1	(
	2 yards and half of broad cl	oth for F	Rich. the	1	o	
	groome		}	1	2	(
	silke and buttons and for ma			0	3	- (
	4 yards and half to make th					
	2s 2d the yard ¹		>	0	9	
	3 ells of hempen cloth for	lineinge		Ö	4	
	a payer of stockings for hi	umen 20	***	ő	i	
. 13 . 6	a payer of stockings for him		**	0	2	
. 13 . 0	a payer of shoes for him		11: 111	U	4	
	- 1			_	0	Т
	a breef			0	2	
	a lame man		1 1 0	0	0	
	pd Jeffery Cook for carrying			-		
	sydar to London		5	1	6	
	a bedlam			0	0	
	to poore		** ***	0	1	
	a souldier			0	2	
	a souldier Mr. Hickfords man			0	2	
	the watchmaker of Herefor	d.		0	2	
	a breef			0	2	
	to divers poore			ő	3	
	to divers poore 2 souldiers			0	2	
	a man that brought goats			0	1	
	a man that brought goats	***		0	2	
	given to Mr. Baddenhams		** 114	-	-	
	the p(ur)suiant	***	***	0	5	
	a gentlewoman			0	5	
	to Gwin the huntsman		***	1	0	
	to brache the tinker	***		0	1	
	a poore woman	***	**	0	1	
	to Mr. Hickfords boy to John Owen	***		-0	2	
	to John Owen	***		0	2	
	the man that went wth the	goats to	my lady \	0	10	
	Scudamore	,,,	5	0	10	
	to poore			0	2	
	the watchmaker			0	2	
				ő	2	
. 15 - 0		***		0	ī	
. 15 -0	2 criples			0	18	
TD 00	to Mr. Prichard for 2 goat	· · ·	144 144	U	10	
P. 39						
Fifts			153. 755	0	1	
	to Mr. James at cards		***	0	0	
	to a fowler	***	*** ***	0	2	
	to a fowler to a brief	***	***	0	2	
	to 3 poore at the gate	4447		0	0	
	2 old men	***		0	1	
	2 old men a poore woman			0	Ô	
	to Carlick of Clocester	1000			2	
	to Garlick of Glocester			0	2	

¹ The fool has no breeches provided for him. It looks as though he wore a long-skirted coat and drawers or linings under (vide Shakespeare's England, Vol. II, p. 262, ill.).

						11.	
	to the water man					li s	d 0
	to a souldier	***	***	***	***	0 5	0
		***	4++	***	***	- "	
	to the p(ur)sulant	· feetam 1	UFa=Fa	Thurs?	333	0 5	0
	to a mason that came			-	811	0 1	0
	a poore woman	+3+	***	***	.03.0	0 0	6
	to old Gwin	***			1999	0 2	0
	for carryage of a ch	eese to	Lone	ion	499	0 2	4
	to foulke Smyth		110	-11	4+4	0 2	0
	a poore woman at t	he grov	re .		1449	0 1	0
	a poore man		***	9.64	111	0 0	6
	to Rowland Higgins			***	444	0 5	0
	2 poore men		***	444	233	0 0	8
	a poore man at the	gate	***	411	144	0 0	6
	to the p(ur)suiant	141	***	444		0 5	0
	to doctor Fells man		****	***	***	0 1	0
	a cook of Glocester	414	***	***	411	0 2	0
	poore at the gate		***	***	***	0 0	9
P. 40	-						
Gifts at St.	to the Joynom	.77	123	***	****	0 2	6
Mary day 1632	to the p(ur)suiant					0 5	0
,,	a souldier and a poo			***	***	0 1	3
	a woman of Heref[or			***	944	0 2	0
			***	1.04	****	0 2	0
	0 00-100	***	***	9.6.9	***	0 2	0
0183	to other poore	0.4.5	***	***	***		_
0	0131	***	***	244	444		6
	z soldiers	***	***	***	***	0 2	0
	a Irish man					0 5	
		***	444	***	***	0 5	0
	a criple	***	***	***	****	0 0	3
	to Mr. Scory		***	111	***	1 0	0
	a souldier in the hal		***	9.14	933	0 1	6
1 - 10 - 11	a blind man			1.11	***	0 0	6
1 - 12 - 11	mending the fooles s	nooes	***	500	144	0 1	2
	given to shaw	111		211	2255	0 2	0
	to waytes	9.4.5	***	+++	111	0 2	6
	13					-	-
	a poore old man	255	100.	0.00	311	0 2	0
	shaws man	4111	+++	4.44	111	0 0	6
	a souldier		***	***	***	0 0	6
	a Jester			***	***	0 5	0
	Mr. Gates his groom	e	111	***	10.00	0 5	0
	a Lewne at Hentland	đ	111	***	7.77	0 1	0
	a poore woman of w		r	444	111	0 2	0
	to Rich. Cornwalls n	nan	110	4.64	+++	0 2	0
	a poore old man			2.64	1000	0 1	0
	to Mr. James	***	***	444	100	0 2	6
1.3.0	a poore man	***	***			0 0	6
	to Mr. James		***	2000	Terr	0 1	0
	to divers poore	***	***	***		0 9	9
	the fooles coate					0 1	6
0.4.8	a mad woman	1044		***		0 1	ő
	a souldier	***	***			0 1	0
	a poore woman	***			***	0 0	8
		Tot			***	12 12	0
P. 41							
Houshold	a sifter for the coale					0 1	11
Furniture	for 2 keys		111	***	***	0 0	1/
	*	100	1000	100000	1500		

	s at the hell and for 2)	li		d
	for altering the grate in the hall and for 2 cramps for the chimney [The last entry crossed out.]	0	5	
	furber the Joyner for 20 boxes 2 payer of gold weights 7 knives	0 1		6
	7 knives	0	5	0
	a candlestick		6	0
	I dosen of money baggs Rich. Meeks for 3 of bras waytes	0	3	0
	Mich. Mccks for 6 or blue way to	2	8 3	10
70.40	[Remainder of this page wanting.]			
P. 42 Houshold	pd Jeffrey Cook for bringing downe from	0	4	Ω
Furniture at	London a dosen and half of bottles		4	6
St. Mary day	pd Henry Prosser for makeing 6 stooles	0	0	6
1632	thrid and Incle for them pd Wilcox for 2 dosen and half of quart	-		
	bottles		7	6
	1 dosen and half of pint bottles	0	3	9
	6 dosen of Corkes a basket cord and porters carryage	0	1	3
	a watering pott	0	3	6
	a great knife to cutt bread	0	1	6
D 40	Tot	1	6	6
P. 43 Kings Service	pd for yor ordinary at Herefford1	0	1	6
111160 0011100	pd for 13 mens ordinaries		12	8
	given poore the osler there	0	0	3
	[Remainder of this page missing.]			10
P. 44			2	6
Kinges Service	a messenger that came from Ludlow to the Cryer at Sessions	0	2	0
1632	42 ordinaries for yor Lohps men at the Assises	2	2	0
	given the Chauncelors maid	0	2	6
	Curtois his 2 maids	0	5	0
	to the wayts the Judges porter	ő	5	0
	the Cryer	0	5	0
	the poore	0	1	6
3 12 4	standing of the horses for beare at yor lodgeing	ő	_	10
		+	-	_
	24 ordinaries for you Lohps men at Heref	0	4	0
	a quart of wine and sugar beare for the Groomes	0	ô	6
	horsemeat and for standeing of the horses	0	3	0
	a mash	0		8
	Curtois his 2 maids	0	_	0
2.3.6	the Cryer	ő	1	0
2,0.0	the musick	0	5	0
	a torch and poore by the way	0	i	4
	Tot	5	15	10
		-		-

1 Viscount Scudamore was Chief Steward of Hereford.

P. 45		li	S	d
Lewns	pd John Witherstone for the maimed souldiers	-0	-	4
	more to him then	0		6
	pd to the overseers of the poore of sellick	0	8	6
	the churchwardens of Sellick for the Kings p(ro)vision	0	0	6
	for setting forth of a printice	0	5	6
	John Berry a Lewne	0	-	8
		-		-
P. 46	Tot	0	17	0
Law Charge	pdWilcox that he spent in his journey to Ludlow	0	5	1
at St. Mary	that he gave Mr. Litleton		10	0
day. 1632	expences in law concerning Robt. Webb	0	4	0
4 1 1 1	Tot	0	19	1
P. 47		_	-	
Law Charge	to Mr. Wottons man	0	2	0
	pd Rich. Parry his attorney for following 3 causes	0		0
	more for a p(ro)ces and breach of ordr	0		6
	more for takeing up the hookes	0	1	0
	more for takeing up the bookes	_	13	4
	more for the clarcks fines	0	1	6
	more for a note	ő	Ô	4
	more the attorney his fee	0	2	0
		-	-	-
P. 48	Tot	1	9	0
Lost at Cards	lent yor Lohp at Cards	0	10	6
St. Mary	lost at tables wth Mr. Boddenham	1	16	6
day 1632	lent yor Lohp to pay my lady	0	5	0
	at shoofle board	0	8	0
	lost at Cards	0	4	6
	lost at shoefle board	0	2	0
	Tot	3	6	6
P. 49	li s d li s d	7.5		
London Gloce				
	pp(er) Shoulder of mutton 0 2 0			
Journey out	Loyne of mutton 0 1 8			
	Salletes 0 0 6			
	Breast of porcke 0 2 0			
	Couple of Chickings 0 1 6 1 0 2	3		
	2 partridges 0 2 0			
	1 Rabbet 0 0 8			
	fruict and cheese 0 0 6			
	Wine and sugar 0 8 0			
Breck	kfast Butter and eggs 0 1 0			
	Sowse 0 1 0			
	Leg of mutton 0 2 0			
	2 woodcocks 0 1 8 1 3 3			
	wine and shugar 0 1 0	> 4	0	1
	Bread and beare 0 16 7	1		
Fyer	0 7 8			
Horse	emeat [Hay for 14 horses] 0 4 11]			
	$\begin{cases} 6 \text{ bush. of oats } \dots & \begin{cases} 0 & 16 & 0 \\ 0 & 2 & 0 \end{cases} \end{cases} 1 3 0$	-		
	peck and qr of beans 0 2 0 1			
	(the smith 0 0 1)	1		

	Gifts	2 chamberlaines 2 oslers	li 0	s 2 0	d li	s	d	li s d
		the prisoners poore there Mr. Scudamores man	0 0	0 0 1	6 8 0	6	0	
1	Farrington Supp(er)	Mutton and broth Loyne of mutton Salletes	0 0	1 2 0	4 4 6	10	,	
	8 81 med	2 Rabbets dressing a pheasant fruict and cheese wine and sugar	0	0	0 0	10	10	
	Breckfast	Souse Cheese Bread and beare Fyer	0	1	$\begin{pmatrix} 4 \\ 0 \\ 6 \end{pmatrix} = 0$	11	4	
P. 50								
	Horsemeat	Hay for 7 horses 4 bush di of oats 1 peck 3 qr of brans	0	9	$\begin{bmatrix} 6 \\ 0 \\ 5 \end{bmatrix} 0$	14	11)	2.11.3
	Gifts	a mash the musick 2 chamberlaines drawer and tapstur	0 0	3 2 1			10	[includes 3 totals on p. 49]
	Henley Supp(er)	poore by the way Mutton and broth Souse Shoulder of mutton Sallates Rabbet Jigeons fruict and cheese	0 0 0 0 0 0 0 0	1 0 0 1 0 1 0 1 0	0 6 6 4 10 8 4 0 9		9	}
	Breckfast		0	1	0 8 4 0	8	6	
		Bread and beare	0	5	6)			
	Fyer Horsemeat	Hay for 7 horses 3 bush 3 pecks of oats 3 pecks of beans	0	7 2	8 >0	15	1	2 2 7
	Gifts		0 0 0 0	2	6 0 6	0		[includes I total on p. 50]
		the ostlers poore to poore by the way	0	1	0	8	0	

¹ Faringdon, Berks., 69 miles from London, Henley-on-Thames is 34 The journey took three days.

P. 51			li	S	d	li	5	d	li	s	d
London	Supp(er)	Mutton and broth Shoulder of mutton Breast of mutton Sallets	0 0 0 0	1 2 2 0	8 8 0 4		5		•	3	u
		1 Rabbet 1 Woodcock a tart Wine and Sugar	0 0 0	1 1 1 2	0 8 0 2	0	18	2			
		fruict and cheese Bread and beare	0	1	3 5				. 1	14	8
	Fyer					0	0	10	1	17	Ģ
	Horsemeat	3 bush 3 pecks of oats 1 bush of beans	0 0	9 4 2	0 0	0	15	8			
	The Trunck	mashe up weighing 150 pound		15		0	15	6			
	Boord wage:										
		Geo. Skippe	0	4	0)			1			
		John Manfield Edward Hichman	0	7	0	1	2	0			
		Edward Willis	0	7	ŏ)		-	"			
		or 7 daies					11	6			
	Horsemeat	7 daies at 8d p diem 7 bush of oats at	0	18	8	-					
		2s 8d the bush }			8	1	19	4			
	Fyer	2 pecks of beans 7 dosen of fagots	0	2	0	0	7	0	4	10	7
	Gifts	to a how that lighted)	^	^	۵)	U	1	U	- 4	12	7
		yor Lohp }	0	0	6						
		to James the foot man		1	6						
		to Edwards man weh)	0	2							
		brought a swan	0	1	0	>0	12	9			
		A.F. 244 .	0	1	0						
		my lord Keepp(er)s		1	0						
		porter	0	5	0						
		to divers poore	0	0	9))			
P. 52											
dyet	friday diner	a Rabbet	0	0	10						
dyce		a woodcock	0	1	8						
		butter	0	()	2	0	5	4			
		a quart of burnt wine fruict	0	0	10			70			
		bread and beare	0	0	8						
	Supp(er)	butter and egs	0	0							
		a tart	0	1	0						
		2 quarts of wine a Rabbet	0	1		-0	7	9			
		3 snipes	0	2	8						
			0	0	2						
	Sonday	2 snipes	0	1 2	01						
	Supp(er)	a Rabbet	0	1	0						
		2 quarts of wine fruict and cheese	0	1	4	-0	5	7			
		bread and beare	0	0	5 10						

	n a n b		li	S		i	s	d	li	S	d
	Tuesday supp(er)	a Shoulder of mutton Sallets	0	0	6			}	2	8	2
		2 woodcocks	0	3	6						
		a tart	0	1		0	10	0			
		a quart of Sack	0	1	0						
		a quart of Clarret	0	0	6						
		fruict	0	0	2						
		bread and beare	0	0	10]						
	Wednesday	a brest of mutton	0	2	4						
	Supp(er)	2 quarts of wine	0	1	4		_				
		fruict	0	0	4		6	0			
		bread and beare	0	0	10						
	Thumdon	buttered ale	0	1 2	2			194			
	Thursday	shoulder of mutton Sallets	0	0	4			800			
	Supp(er)		0	3	0						
		3 snipes 2 quarts of wine	0	1		٥	11	8			
		bread and beare	0		10	V	11	0			
		Sweat meats	0	2	4						
		buttered ale	0	1	6						
	Breckfasts	bread, butter and	1								
	1310011111000	beare	0	0	8		1	10			
		nutmegs and Sugar	0	1	2						
								1			
. 53											
		2 lincks and a torch	0			0	-2	2			
		Sweet pouder	0		10						
	friday	a peece of Linge	0		10]						
	supp(er)	butter'd egs	0	1	0						
		butter	0	0		0	3	6			
		Wine	0	0	6						
	0.41	bread and beare	0	1	0						
	Saturday	a woodcock	0	7	0						
	Supp(er)	6 snipes	0	1	0	^	12	0			
		a Rabet	0	i	0	U	12	U			
		2 quarts of wine	0	î	0						
	Mondon	bread and beare a shoulder of muto	0	2	45						
	Monday	Sallets	0	ő	4						
	Supp(er)	a woodcock	0	2	ō						
		3 snipes	0	3		۵.	11	6			
		a tart	0	1	o l						
		2 quarts of wine	0	1	6						
		bread and beare	0	1	6						
	Tuesday	a Rabet	0	1	01						
	Supp(er)	a woodcock	0	2	0						
	FF()	wine	0	0		0	4	0	> 2	18	2
		bread and beare	-0	0	6					[51	[c.]
	Wednesday	a Rabbet	0	1	05						
	Supp(er)	3 snipes	0	3	6						
	11 ,	a tart	0	1	0 >	- ()	- 8	0			
		wine 2 quarts	0	1	10						
		Bread and beare	0	0	8						
	Thursday di					0	7	0			
	Supp(er)	a Rabbet	0				_	-			
		wine	0			-0	2	0			
	-	bread and beare	0		- 1						
	Breckfasts	Bread and beare	0				-	0			
		butter	0	0	4	0	3	8	1		

		year I all a later I	i :	s d	Ii	S	d	li	s d	
		a pound of Sugar and nutmegs }				4			3 u	
	Burnt ale ¹ 5	times			0	4	2	}		
P. 54										
	Boordwages) 6)			1		
		Edward Hichman C Edward Willis (7	0		6	0			
	Coach hyer				0	11	6			
	Horsemeat	hay for 4 horses 7 nights 0	18	8	$\left.\right _{1}$	18	8			
	Evron	7 bush di of oats 1	0	0						
	Fyer Gifts	8 dosen of fagots to a man that			0	8	0	1		
	04100	brought books }	2	6						
		an osler 0 to divers poore 0	-							
		to my lord treasur.								
		ors porter	10	0	-					
		to divers p(er)sons at severall times }1	7	0						
		to Mr. Hunnings 1	0	0						
		to my lady feins nurse 1	0		-					
		to her porter 0	2	6	6	6	10	05.2		
		to my lord of Lon- dons Secretary for								
		presenting yor Lohp >1	0	0				16	0 11	
		wth Bryerwoods Saboths*								
		for the lone of Tascitus 0	2	0						
		to the duches of Buckingham and	0	0						
	Chambas	Linox porters								
	Chamber Rent	paid Mrs Browne for 3 weeks for yor								
		T 1	0	0						
		for the litle			-4	10	0			
		place over the stayers								
		given her 2 maids 0	10	0						
	Other	a torch 0	0	6			Ш			
	Commodities	a quier of pap(er) 0	0	4						
		almons 0 a boatman 0	0		0	1	8			
	Laundres	a boatman 0 9 Ruffes at 9d p Ruf 0	6	6 9			10			
	tor washing	3 Ruffes and cufs 0	1	6			15			
		6 Shirts at 4d the	2	0						
		peec 12 holf shiptot at 24	4	U			77			
		12 half shirts* at 3d 0	3	0	(-)					
		7		1)			

1" Burnt" is distinctly written: the term is not recorded in the Shorter Oxford Dictionary. Burnt wine appears on p. 52.

**Brerewood, A Learned Treatise of the Sabaoth, 1630; second edition 1631. For the identification of this work I am indebted to Mr. F. L. Francis of the British Museum.—F.C.M.

**A very early mention of these articles.

P. 55		li 18 handcarches 0	s 0	d li	S (d	li s [Includ	
		26 payer of boot hose 0			40			on
		at 2d the payer	4	4 >0	18	3	p. 54]	
		Socks 0	0	2				
	Boord wages		5	05		1		
		John Manfield 0	5	0 1	0	0		
		Edward Hichman 0	5	0				
		Edward Willis 0	5	0)				
	Coach hyer i	for 5 daies		0	12	4		
	Horsemeat	hay for 4 horses 6 0	16	8]				
		mgmts				0		
			12	0 1	9	8		
	et : 1	1 peck of beanes 0	1	0]				
	Shoeing and	8 shoes for the coach 0	4	0				
	farrier	4 removes for them 0	0	8				
		A A CAMPO I AM THE CONTRACT OF	1	-	10	3		
			1	1 70	YO.	J		
		a drunch and glister and letting blood >0	4	6		- 9		
		Blackledge	^					
	Fyer	6 dosen of fagots		0	6	0		
	Gifts	for a stoole to stand		3			-10 17	9
	GILLO	upon at West-	Ţ	0				
		minster ¹						
		to a brief at the)	0	c				
		Savoy Church	2	6				
		to the clarcke there 0	0	6				
		to a boy that brought 10	5	0		31		
		Leamons 5	U					
		for lighting yor Lohp 0	0	6	10			
		at the Swan to the			19	6		
		cooke and cham-	2	0			DOM:	
		berlaine	1	0				
		the oslers there 0		6				
		a coachmakers man 0		8				
		to poore 0 my Lady her Gownd 5		0				
		Mr James cilk)						
		stockings	13	0				
		Mr. Rowland Currall 0	11	10				
		Arazi ato manana		-				
P. 56		- 177 -4 41-47)				
	Yor Lohps	yor dimer at the 0	9	010	17	6		
	dyett	vor supp(er) there 0	8	6	1.7	U		
		7	-	65				
		Capers and correnie (?) 0 bread and beare 0		4 >0	0	10		
		1 rabbet 0	-	óš				
		3 snipes 0		6				
		1 woodcock 0	-		8	6		
		2 quarts of wine 0						
		bread and beare 0	-	-				
		a loyne of mutton 0	1	6)				
		sallets C	0	4				

<sup>Was this to enable Scudamore to see some ceremony?
Probably the Viscount's brother (b. 1605).
Is this possibly a corruption of currack, a pannier of wicker work for hanging on the saddle of a horse?</sup>

				1						
		a quart of burnt	S	d	li	S	d	1	i s	d
		wine 0	0	10	0	3	8			
		bread and beare 0	1	0						
		a loyne of mutton 0	2	6						
		a rabbet 0	-1	-						
		3 snipes 0	3		0	8	2			
		wine 0	0					3	3	9
		bread and beare 0	0	8 1					[.5	ic]
		yor diner at the feathers 0	8	10	.0	8	10			
		a loyne of mutton 0	2	65			23.4			
		a tart 0	1	- 1						
		butter and egs 0	0		0	5	4			
		wine 0	0	6						
		bread and beare 0	0	-)						
		a woodcock 0	1	- (0	2	6			
		wine bread and beare 0	1	U		_				
		Butter'd ale 4 times 0 almonds 0	0	5			7.1			
		egs 0	_							
		sweet meates 0	1							
		sugar halfe a nound 0			0	8	5			
		peares at severall 0	0				100			
		ищеѕ ј	U	11						
		bread, beare and nut 0	1	3						
	othor	megs for preckfasts					1			
	other Comodities	writing 2 french 0	7	0			1			
	Contourdes	coppies 0	3	4	0	1.4	0	0	1.4	0
		a hamperne and lock 0		4	0	1.45	8	- 0	14	8
		a black bridle 0	2	0						
1) ==							,			
P. 57	Didaina									
	Rideing	mutton and broth 0 loyne of mutton 0	1	4						
	downe	sallets 0	_	4						
	Henley	puddinge and sowse 0	1	4						
	supp(er)	1 cock 0	1		0 1	10	0			
		2 pigeons 0	1	0	•					
		fruict and cheesr 0	0	6						
		wine and sugar 0	_	0)						
-	Breckfast	butter and egs 0	_	5						
		*,	1	4	^					
		burnt ale 0	0	4	0	8	7			
		bread and beare 0	5	6			(1	14	=
	Horsemeat	have for 5 horses 0	-	74			1		14	5
		2 bush di and di peck		- 1						
		of oats	4	3						
		beans 0	1	11 >	0	9	4			
		mashe 0	1	0						
		the smith 0	0	7						
	Gifts	the sadler 0	1	0 }						
	GILLS	2 chamberlaines 0 the cooke 0	2	0						
		2 oslers 0	0	6	0	4	10			
		the moore there?			v	-2	10			
		and by the way }	1	6						
	Fire			-	0	1	8			

			li	S	d	li	s	d	li	S	d
marston1	a loyne of muttor	1	0	1	6)			1			
supp(er)			0			>0	0	0			
						Ů,	0	U			
Horsmeat			0	3	03						
	4 bush of oats			8	0						
	mashes	· · · ·	0	1	4 1	0	13	5			
	sack and beare	101	0	0	10				- 2	5	10
	shoeing		0	0	3						
Gifts			05	10	0						
		an	{			1	0	9			
			0	7	6	> "					
			0	2	0						
		е	0	1	3		0	0			
Fyer there	***	* * *				U	0	0)			
			,		,						
	footboyes expend		}0	3	0						
			1								
	trunck and be	xes	>0	15	0						
			{			1	10	3			
	pences goe for	the	>0	2	3	(10				
	trunck		J								
				10	0						
				10	17						
						-	10	-			
	Tot			***		0/	10				
I		don									
Rideing			11	4	17				15	4	4
charges	Downe		4	0						7	-
Weekly	Boordwages	+				. 2	R	0			
charge			i	0	0		·	0			
	Coach-hyer		0	11	6				175		
						> 1	15	4			
	Horsemeat		1	19	43						
	11010011100		1	18	8	> 5	17	8			
			1	19	8		10		25	10	0
			0	7	0.7	U	19	9	33	10	U
	ryer wood		0	8	0	- 1	1	0			
			0	6	0						
	Gifts					13	19	1			
			_		6	1	. 10				
	Yor Lohps dyet	4+1			0.5	1		_			
						3	9	7			
Chamber	Rent		4	0	0	4	. 0	0	1		
	Fyer there	supp(er) a sparrib a rabbet bread and beare hay 4 bush of oats mashes sack and beare tomkins shoeing to Mr. Vaulx his r and gentlewom the chambermaid cooke and groot the barber there 2 oslers and poor for carriage of trunck and be weighing 214 p John West his pences goe for trunck pd. Tho. Edme that he gave woman in Lon Tot A Collection of Lon bills into Heads Up Downe Boordwages Coach-hyer Horsemeat Washing Fyer wood Gifts	supp(er) a sparrib a rabbet bread and beare hay 4 bush of oats mashes sack and beare for tomkins shoeing to Mr. Vaulx his man and gentlewoman the chambermaids cooke and groome the barber there 2 oslers and poore Fyer there footboyes expences 2 nights for carriage of the trunck and boxes weighing 214 po. John West his ex- pences goe for the trunck pd. Tho. Edmonds that he gave a woman in London Tot A Collection of London bills into Heads Up Downe Boordwages Coach-hyer Horsemeat Washing Fyer wood Gifts	marston¹ a loyne of mutton 0 a sparrib 0 a rabbet 0 bread and beare 0 bread and beare 0 4 bush of oats 0 sack and beare for tomkins shoeing 0 sack and beare for tomkins shoeing 0 sack and beare for tomkins osack and gentlewoman the chambermaids cooke and groome the barber there 0 2 oslers and poore 0 Fyer there footboyes expences 2 nights for carriage of the trunck and boxes weighing 214 po. John West his expences goe for the trunck pd. Tho. Edmonds that he gave a woman in London Tot A Collection of London bills into Heads Up 11 Charges Downe 4 Boordwages 1 Coach-hyer 0 Horsemeat 1 Washing Fyer wood 0 Gifts 0 Gifts 0 Gifts 0 Gifts 0	marston¹ a loyne of mutton 0 1 supp(er) a sparrib 0 1 a rabbet 0 1 bread and beare 0 4 hay 0 3 4 bush of oats 0 8 mashes 0 1 sack and beare for tomkins 0 0 coke and groome tomkins 0 0 coke and groome the barber there 0 2 coke and groome of 1 coke and groome the barber there 0 2 coke and groome of 1 coke and	marston1 a loyne of mutton 0 1 6 a rabbet 0 1 6 a rabbet 0 1 6 d rabbet 0 3 0 d rabbet 0 3 0 d rabbet 0 3 0 d rabbet 0 3 0 d rabbet 0 1 d rabbet 0 1	marston¹ a loyne of mutton 0 1 6 supp(er) a sparrib 0 1 6 a rabbet 0 1 0 bread and beare 0 4 0 0 hand beare 0 3 0 4 bush of oats 0 8 0 mashes 0 1 4 0 sack and beare for tomkins 0 0 3 0 do nashes 0 1 4 do sack and beare for tomkins 0 0 0 3 do nashes 0 0 10 do nashes 0 0 0 3 do nashes 0 0 0 do nashes 0 do nashes 0 10 0 do nashes 0 do nashes 0 10 0 do nashes	marston¹ a loyne of mutton 0 1 6 a sparrib 0 1 6 a rabbet 0 1 6 a rabbet 0 1 0 bread and beare 0 4 0 bread and beare 0 3 0 4 bush of oats 0 8 0 mashes 0 1 4 0 13 sack and beare for tomkins 0 0 3 0 d d bread and beare for tomkins 0 0 1 4 0 13 sack and beare for tomkins 0 0 0 3 d d d d d d d d d d d d d d d d	marston¹ supp(er) a sparrib	marston¹ supp(er) a sparrib 0 1 6 a rabbet 0 1 0 0 8 0 bread and beare 0 1 0 0 8 0 bread and beare 0 1 0 0 0 8 0 bread and beare 0 1 0 0 0 8 0 hay 0 3 0 4 bush of oats 0 8 0 mashes 0 1 4 0 13 5 sack and beare for tomkins 0 0 3 0 10 shoeing 0 0 3 3 0 10 0 and gentlewoman the chambermaids cooke and groome the barber there 0 2 0 2 oslers and poore 0 1 3 0 3 8 Fyer there footboyes expences 2 nights for carriage of the trunck and boxes weighing 214 po. John West his expences goe for the trunck pd. Tho. Edmonds that he gave a woman in London bills into Heads Rideing Up 11 4 1 1 10 3 pences goe for the trunck pd. Tho. Edmonds that he gave a woman in London bills into Heads Rideing Up 11 4 1 1 1 1 1 1 1 1 1 1 1 1 1	marston¹ a loyne of mutton 0 1 6 a sparrib 0 1 6 a rabbet 0 1 0 0 8 0 bread and beare 0 4 0 1 0 4 0 13 5 mashes 0 1 1 0 0 8 0 mashes 0 1 1 4 0 13 5 sack and beare for tomkins 0 0 3 0 10 0 mashes 0 0 1 0 10 0 mashes 0 0 1 0 10 0 mashes 0 0 1 0 0 10 0 mashes 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0

						li	S	d	li	S	d	li	S	d
		to the geing	vai	its of	my		10	0		10	0			_
		Some	011			0	10	3)						
			Other c	omoditie	es		3 14	8	1	8	9			
				Tot	***		• • •		56	13	6			
012 2	yor Lo Londo	k wher	the T Habe Laun Shoer Cutle	millinor Caylor rdasher drer naker	 all	3 3	4 2 15 1 3 11 0 18 5 12	4 9 0 0 0 0 4 7 5 5	>	17	1 9	38		9 ic]
P. 60	blank													
P. 61		1	. 4 1									0	0	
	Lost at	cards	at card at dice	S						***		0	3	6
								Т	ot			0	5	0
Lost in telling of money and in light gold at St. Mary day 1632	f 1 t		for ligh that wa	t gold a	it my	la by	dy He	enry	dam we	ores avei	; ·	0 0	2 3 5	0 0
P. 63	blank												7/	
P. 64														
Messenger St. Mary 1632	s at day	mon for the foot Tho. I a boy for ser Rich. to Mr.	ch. Mor or goein, otboy his Webb to that w nding a Morris . Whitn senger t	g to Mr s expend o Gloces ent to lre to goeing ey	Wms tes to st. an Cleev Mr. I to Mi	Cle od e Moc r. V	eve Clee	Vorceve eve	estu	ir		0 0 0 0 0 0 0	10 10 0 1 1 0 10 5 0	0 0 4 6 3 6 0 0 8
P. 65	blank													
P. 66 Money ba		pd for	r 6 mon	ev bag	5							0	3	0
St. Mary				,					Tot			0	-	0
												-	1	

P. 67 Other p(ar)ticu-	Tho. Wottons charge at last l	Randle	Al	intt	li 0	s 4	d 3
lers	Toby Payne his note				-	10	2
	for setting streight yor bow				ŏ		4
	for Scurvey grass ¹		***	***	ŏ	5	0
	for Sope			***		15	0
	pd Parry of Doore at Lama				3	3	4
	more the 27 of Octob.			***	1	4	0
			Tot		6	2	1
P. 68 Old Notes	pd the goodwife Davis of I	Iomala			0	5	0
JICI TYOUGS	pd John Squire of Wick			***	9	0	0
	pu John Squire of Wick	***	***	***	9	0	
			Tot.		9	5	0
P. 69 Phisick	Pd Tho. Webb expences w	hen he	came	e to)			
. 1415101.	Marston to my lady				0	1	3
	pd Wilcox expences to Mar	ston			0	14	0
	lent yor Lohp for to give M			4.00		10	Č
					1	0	-0
	lent yor Lohp to give Mr. P	on	* * *	***	0	2	- 0
	pd for 6 couple of Linges be	ing giv	ven to		3	0	(
	Letchmore at 10s the course for the carryage of them from	n Lone	don we	igh-\	0	15	0
	ing 200 and 18 po.	***)	-	-	-
			Tot	***	6	2	3
P. 70 Paper at St.	pd Wotton for 2 skins of p	(ar)ch	mt		0	Ω	10
Mary day 1632	a quire of pap(er)			***	0	0	4
y day 1002	wax and Inck			***	ŏ	0	4
		200			0	2	Ó
	6 quier of pap(er)					_	2
	6 quier of pap(er)	***	***	***	-	()	
	f quier of pap(er) Inck 3 quier of pap(er)	***	***		0	0	(
	Inck	***	***		0		_
P. 71 blank	Inck 3 quier of pap(er)	***			0	1	8
	Inck 3 quier of pap(er)	***			0	1	_
P. 72	Inck 3 quier of pap(er)	***			0 0	1	8
P. 72 Phisick at St.	Inck 3 quier of pap(er)	***	Tot		0 0	4	0
P. 72 Phisick at St.	Inck 3 quier of pap(er) to Mrs. Baskervyles maide	***	Tot		0 0 0	1 4 2	000
	Inck 3 quier of pap(er) to Mrs. Baskervyles maide	***	Tot		0 0 0	1 4 2 10	_
P. 72 Phisick at St. Mary day 1632	Inck 3 quier of pap(er) to Mrs. Baskervyles maide	***	Tot		0 0 0	1 4 2 10	000
P. 72 Phisick at St. Mary day 1632 P. 73 blank P. 74	Inck	***	Tot		0 0 0	1 4 2 10	0000
P. 72 Phisick at St. Mary day 1632 P. 73 blank P. 74 Pit]chinge at	Inck 3 quier of pap(er) to Mrs. Baskervyles maide to Dr. Parry	 p dien	Tot Tot		0 0 0 0 0	1 4 2 10 12	000000000000000000000000000000000000000
P. 72 Phisick at St. Mary day 1632 P. 73 blank	Inck 3 quier of pap(er) to Mrs. Baskervyles maide to Dr. Parry John Simons 5 daies at 10 11 barrells of Lyme at 11d	 p dier the b	Tot Tot		0 0 0 0 0 0	1 4 2 10 12 6 4	000
P. 72 Phisick at St. Mary day 1632 P. 73 blank P. 74 Pit]chinge at	Inck 3 quier of pap(er) to Mrs. Baskervyles maide to Dr. Parry	 p dier the b	Tot Tot		0 0 0 0 0 0	1 4 2 10 12 6 4	0 0 0 0 0 2

							h	S	d
Tho. J	Morris 1	day		***	441		0	0	8
Horne	3 daies	3		***	440	***	0	3	0
- John	Simons	4 daies			***	0.00	0	3	4
	Simons			440		117	0	1	8
Wm.	Puckmo	re 6 da	ies	414	444	***	0	5	0
	Simons			***		***	0	5	10
	ny Nev				***		0	1	0
	Puckmo						0	5	0
	Simon (***		0	5	0
	Combe			1 the	dav		0	5	6
	Combe		1.1			1444	0	4	7
	imons 5					***	Ö	4	2
	Puckmo						ő	4	2
					444	+++	0	1	2
	wedge:		C		0.0.0	464	0	î	1
(3)	a picka	ix and	e weak	ges	100	5855	U	I	1
					T- 4			0	13
					Tot		4	2	3
				. 0.7	7 (7		-	10	0
	e for pitc				ob the	yard		12	0
for m	akeing	the hou	se of o	ffice	344		0	5	0
									-
					Tot	-0.	5	19	3
									-
a lock	k for th	e sydar	house	doore	9	600	0	1	
2 war	nties1 fo	r the m	narcket	horse	es	***	0	2	0
to an	Uphols	terer			111		0	10	0
	r. Taylo				SS	***	0	1	0
	ne Iron				111	***	0	1	2
	er of hi				***	24.0	0	2	6
- 2 %		-		14.			ŏ	2	0
		the stur	ddar do				0	1	2
	kes for				***	111	0	1	0
				4.4.4	244	111	-	0	4
maker	ing 2 w	eages	11 T	1	WAR	***	0		8
	ing a lo				200	++>	0	0	
	eing the				1000		0	0	4
a key	for the	e millho	ouse do	ore	0.00		0	0	
3 yar	ds and d	li of lin e	en cloth	to li	ne the h	ang-			
inge	es		100	444	444		0		
2 core					***	***	0		
a whi	ite bridl	e for v	or Lobs				0	1	
	ters for					***	0	0	
drung	chesa an	d ovle	for Tor	nkins			0	7	
for 3	sadle p	Jates				***	0	1	
	ake for				-11		0	0	
							0	1	
	yer of c			***	111	***	0	3	0
	yer of s				- 0.4	***	-		
Z row	vies or v	JUITINWE	+b (1 1	122	***			
						***		-	4 4
my e	expences	and m	orris a	t wo	rces(?)		1	U	
									-
						- 14			7
	w key f	or the 1	buttery	door	e	***	0		6
	und of	Chaulke	***	177		***	0	0	6
2 row passa my e at for m ay a new	wles of (ge at h expences mending in the second of the s	Gurthwe oarwith; and mand mand mand continuity or the lands e.	y wth torris a corck an buttery	hors t Wo d skin door	ses rces(?) mber ⁵ re		***	0 0 1	0 2 0 0 1 0 0 0 0 0 0 0

	100 of stone nayles 100 of clout nayles spike nayles 2 tylers 3 daies mending my ladies ta Roger Simon 4 daies Steeven Powell 2 dai 100 of 8d nayles 2 sawyers 2 daies a hinge for a doore a hooke for a gate	ankard es at 10d	 p diem 		0 0 0 0 0 0 0 0 0	0 0 0 3 1 4 1 0 3 0 0	6 4 6 2 3 6 0 8 8 8 7 4
			Tot		1	0	11
P. 77 blank P. 78					Ī		
Sincks at St. Mary day 1632	pd Horne for makein 3 grates weighing 51			***	4 0	0 17	0
			Tot.		4	17	0
	a payer of shoes for a payer of stockinges		***	***	0	2 2	6
			Tot	***	0	4	10
P. 79 blank							
P. 80							
Shovegroat	pd Jeffrey Cooke for b	ringing th	e table i	rom			
board at St. Mary day 1632	Heref	***	···	***	0	6	8
			Tot		0	6	8
P. 81							
Stewardship of	to the sword bearer2		1111	+++	0	5	0
Heref.	4 sergeantes the cooke and butler		***	***		10	0
				***	0	5	0
	the porther there		100	114	0		0
	8 mens ordinaries the		***	***	0		0
	the poore there		4		0	1	ŏ
	the osler there			***	0	1	0
	[Remainder of t	the page v	vanting.]				
P. 82							
Stable at St.	a seene		+++	***	0	0	2
Mary day 1632	oyle to dress the litle	mare	3100	****	0	0	5
	a drunch for Tomkins		144	***	0	1	8
	pd for the rone Mare		***	***		0	0
	for the sorrell mare S		***	***		15	0
	the towle of them bot			***	0	0	4
	my expences at bromy 2 drunches		***	***	0	0	6

¹ Baysham, in Sellack.

² Of Hereford.

		li	S	d
	pd for 6 sadles wth bridles, sturrops gurths	4	10	0
	and clothes at 15s the peec a new bridle wth sturrop and leathers for yor			
	Lohp	0	3	10
8 11	makeing 2 new coach wheeles	0	12	0
	2 stocks and cloutes for them	0	3	0
	pd for 2 cart mares	10	10	-0
		_	_	_
	a messenger to go to Humber	0	1	0
	2 new bosses and makeing clean yor Lobps bitt	0	2	6
	1 ell 3 qr of kersey for a cover and cloth at	0	5	10
	3s 4d the ell			-
	half ell of lockran ¹	0	0	7
	2 skins	0	1	11
	1 ounce and gr of silver lace	0	6	0
5 18 0	2 skeyns of silke	0	-	2
	pd for my ladies mare	5	0	0
	2 11 11 . 1 . 1 . 141 4h	0	4	0
	for bindeing and setting up the cart	0	*	U
	64 nayles weighing 38 po. at 2d 3 farthings	0	8	9
	the pound	1	12	0
	3 sett of Geares for the cart horses	0	9	0
	3 bridles to them	0	3	8
	clouts and nayles for the coach wheeles	0	1	5
	a quart of linseed oyle, and a po. of red ledd	0	-	10
	mending the old geares and pack sadles	0	5	0
	Browne of Ledbury for 2 drunches for Tomkins	0	-	4
	mending the coach harnes	0	4	6
	5 skins of line the coach bed	0	0	8
	sturrop leathers for Mr. James	0	1	0
	kersey for my ladies footcloth	ő	î	0
- 0 0	a skin to line it	U	A	U
5 0 6	pd Powell the oxlich for cureing Beest and	1	0	0
	Kennell			
	a batterkin linx ³	0	1	0
	See more over ye leafe forward	·		
	at this marke*			
	at this marke			
P. 83				
Travelling	pd Thomas Webb his expences goeing to my-	} 0	7	0
Charge	Lady Scudamore)		
	the footboy when he went to Kenchurch	0		
	to Mr. Abrahalls4 groom	0	_	
	to Sr. Walter Pyess groome	0		_
	to Sr. Walter Pyes groome my expences at Hereford	0		-
	to Mr. Chauncelors cooke and butler	0	10	0

¹ The name of a village in Brittany where a linen fabric of the name was made.

*Ox leech or ox doctor.

of "badikins"...

The Abrahalls were of Ingeston, Foy, Herefordshire.

Of the Mynde, Much Dewchurch. Att.-General of the Court of

Wards and Liveries.

	4- 1		li	S	d
	to his porter	***	0		
	to the boote there	***	0		
	paid for or horses there	***	0	3	
	Tot	***	1		
P. 84			-	T T	
Travelling Charg	e my expences twice to Here, and Ross	***	0	1	0
at St. Mary day 1632	passage at the Haw goeing and comeing to Lady Scudamore	my	0	5	0
	a messenger from Cheltnam to Cradock		0	2	6
	a messenger to Cleeve	***	0	0	- (
	yor Lohps supp(er) and ors at Cheltenham		0	6	10
	horsemeat there and a mash	***	0	5	10
	given the 2 maids there		0	3	
	the osler and a boy		0	0	
9	beare and poore at burford and by the way	•••	-	-	
	Given the man that some fam of the way	y	0	0	1
	given the man that came for yor Lohp	***	0	15	_
	to the woman that kept my lady Scuda	L	0	10	(
	to 3 maids there	***	0	15	-{
	to 2 other maids there to my ladys man	***	0	4	(
	to my ladys man	***	0	2	
	horsemeat there and sheoing [sic.]		-		
	A someth of Classes	***	0	8	-
	4 servants at Cleeve	***	1	-	(
	my expences to Marston	***	-0	4	- (
	Henry weaver and the footboys expe	nces			
	there		0	1	
	the footboys expences to my lady Scudan	nore	0		1
	that he spent when he went wth lres to Staple		ő	ő	
	nd Wotton his amount to I and a	***			
	pd Wotton his expences to London	***	1	1	
	the footboys 3 iourneys to Glocester	***	- 0	2	
	to Tuexbury	***	0	0	
	pd Morris for goeing to Mr. Vaughan	***	0	15	(
	То	t	7	7	8
P. 85			-		
	See more over ye leafe backward				
	at this marke*				
	for bale cords	***	0	2	8
	3 halters		0	1	(
	mending the watering place		0	0	-6
	for spokes, balleyes and makeing the	cart			
			U	12	(
e 0	boukas2 for the cart wheeles and put	ting (0	8	(
52	them in	5	0		,
	100 of spikenayles		0	1	
	Tot	***	38	2	
D 9e		***	38	2	
P. 86	Tot	•••			
The Tarras	Tot francis Stretton 9 daies	•••	38	9	
The Tarras Walke at St.	Tot	***	0		0 8

¹ This word is unknown.

The link that joined the swingle trees to a vehicle, plough, etc.

This Herefordshire word, though still in use, is unrecorded in any dictionary.

In a lecture to the Shakespeare Club, Stratford-upon-Avon, in 1951, Mr. John Moore, the novelist, of Tewkesbury, said he had found this word in the form

⁸ Herefordshire word "bowk": the box or nave of a wheel.

	steeling a har sharpening 3						1i 0 0	s 0 0	9 4
					Tot		1	5	7
75 00									
P. 87	Lieipolo						0	0	6
Jrinalls	Urinals	***	***		***		0	0	6
	2 more	7.55	***	****	***		0	0	6
	2 more	****	***	***		-	0	0	6
	2 more	***	***	***	***	***	0	0	6
					Tot		0	2	6
P. 88									
Urinalls at	2 Urinalls		1	744		***	0	0	6
st. Mary day	2 Urinalls	***	***	144	***	414	0	0	6
1632					Tot	111	0	1	0
D 00 11 1							-	÷	-
P. 89 blank									
P. 90	Rich Parry o	f Doore	hie 1	ra des			2	0	0
Wages at St.	Goodwife Wo				S Wages		0	7	6
Mary day 1632							0	15	0
	Wm. Cooke t			· · · ·			1	0	0
	the neman or								
	Charles the		hie an				0	9	-0
	Charles the s	hepard	his qu	arters			0	9	0
	Elisabeth Ta	hepard ylor her	his qu wage	arters		***	0	9	0
	Elisabeth Tar	hepard ylor her ooke	his qu wage	arters	wages		0	9	0
	Elisabeth Ta	hepard ylor her ooke is wage	his que wage	arters s Midsoï	wages īer last	***	0	9	0
	Elisabeth Tar francis the C John West h	hepard ylor her ooke is wage	his que wage	arters s Midsoï	wages īer last	***	0 2 0 0	9 0 15	0 0
P. 91	Elisabeth Tar francis the C John West h	hepard ylor her ooke is wage	his que wage	arters s Midsoï	wages ner last r and a	***	0 2 0 0	9 0 15 15	0 0 0 0
P. 91	Elisabeth Tar francis the C John West h	hepard ylor her ooke is wage nis wage	his quer wage	narters es Midson quarte	wages Ter last r and a Tot	***	0 2 0 0	9 0 15 15	0 0 0
P. 91	Elisabeth Ta- francis the C John West h John Taylor h	hepard ylor her ooke is wage nis wage	his query wage s for a	Midson quarte	wages Ter last er and a Tot	***	0 2 0 0	9 0 15 15	0 0 0
P. 91	Elisabeth Tar francis the C John West h John Taylor h	hepard ylor her ooke is wage nis wage all Tota nto one	s for a	Midson quarte	wages Ter last er and a Tot	***	0 2 0 0 0 8	9 0 15 15 10	0 0 0 0 0
P. 91	Elisabeth Tar francis the C John West h John Taylor h severa Collected i first halfe	hepard ylor her ooke is wage nis wage all Tota nto one a yeare	s for a	Midson quarte	wages Ter last er and a Tot	***	0 2 0 0 8	9 0 15 15 10	0 0 0 0 0 0 0
P. 91	Elisabeth Tar francis the C John West h John Taylor h , severa Collected i first halfe . , nuall pay	hepard ylor her ooke is wage nis wage all Tota nto one a yeare	his quer wage s for a	marters s Midson quarter this bo	wages ner laster and a Tot cooke	half	0 2 0 0 0 8	9 0 15 15 10	0 0 0 0 0 0 0 0
P. 91	Elisabeth Tar francis the C John West h John Taylor h severa Collected i first halfe	hepard ylor her ooke is wage nis wage all Tota nto one a yeare	his que wage s for a s for a lls of place	marters Midson quarte	wages Ter last r and a Tot cooke	half	0 2 0 0 8 8 2 30 17	9 0 15 15 10 15 15 15 15	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
P. 91	Elisabeth Tar francis the C John West h John Taylor h severa Collected i first halfe nuall pay pparell Buildinge	hepard ylor her ooke is wage is wage all Tota nto one a yeare mts	his que wage s for a s for a lls of place	marters Midson quarte	wages ner last r and a Tot coke	half	0 2 0 0 8	9 0 15 15 15 10 15 15 15 7	0 0 0 0 0 0
P. 91	Elisabeth Tar francis the C John West h John Taylor h , severa Collected i first halfe . nuall pay pparell	hepard ylor her ooke is wage is wage all Tota nto one a yeare	his quer wage s for a lls of place	Midson quarte	wages	half	0 2 0 0 8 8 2 30 17	9 0 15 15 10 15 15 15 7 6	000000000000000000000000000000000000000
P. 91	Elisabeth Tar francis the C John West h John Taylor h severa Collected i first halfe nuall pay pparell Buildinge Carriages	hepard ylor her ooke is wage is wage all Tota nto one a yeare mts	his que wage so for a so for a lls of place	marters s Midson quarte	wages mer last r and a Tot cooke te	half	0 2 0 0 8 30 17 0	9 0 15 15 15 10 15 15 15 15 17 6 11	000000000000000000000000000000000000000
P. 91	Elisabeth Tarfrancis the C John West h John Taylor h severa Collected i first halfe nuall pay . pparell Buildinge Carriages Day laboures	hepard ylor her ooke is wage is wage all Tota nto one a yeare mts	his que wage so for a so for a lls of place	marters s Midson quarte	wages mer last r and a Tot cooke te	half	0 2 0 0 8 2 30 17 0 0	9 0 15 15 10 15 15 15 7 6	000000000000000000000000000000000000000
P. 91	Elisabeth Tar francis the C John West h John Taylor h severa Collected i first halfe nuall pay pparell Buildinge Carriages Day laboures 'Mr. Scudares 'Mr.	hepard ylor her ooke is wage is wage all Tota nto one a yeare mts rs rs his fu	his que wage so for a so for a lls of place	marters s Midson quarter this bo for the control of my	wages The last and a Tot cooke the Brother	half	0 2 0 0 8 2 30 17 0 0 0	9 0 15 15 15 10 15 15 15 15 17 6 11	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
P. 91	Elisabeth Tar francis the C John West h John Taylor h severa Collected i first halfe nuall pay pparell Buildinge Carriages Day labourer 'Mr. Scudamo Gifts Houshold fur	hepard ylor her ooke is wage is wage all Tota nto one a yeare rs re his fu miture	his query wage. s for a lls of place.	midson quarter this befor the control of my	wages Ter last r and a Tot cooke te Brother	half	0 2 0 0 0 8 2 30 17 0 0 0 11	9 0 15 15 10 15 15 15 15 17 6 11 12	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
P. 91	Elisabeth Tar francis the C John West h John Taylor h severa Collected i first halfe nuall pay . pparell Buildinge Carriages Day labourer 'Mr. Scudamo Gifts Houshold fur Inck, pap(er)	hepard ylor her ooke is wage is wage all Tota nto one a yeare rs re his fu rniture , and o	his query wage. s for a lls of place.	midson quarter this befor the control of my	wages Ter last r and a Tot cooke ne Brother	half	0 2 0 0 0 8 2 30 17 0 0 0 11 2	9 0 15 15 10 10 15 15 15 15 15 15 15 15 15 15 15 15 15	0 0 0
P. 91	Elisabeth Tarfrancis the C John West h John Taylor h severa Collected i first halfe nuall pay . pparell Buildinge Carriages Day labourer 'Mr. Scudamo Gifts Houshold fur Inck, pap(er Kinge his Se	hepard ylor her ooke is wage is wage all Tota nto one a yeare rs re his fu rniture , and o	his query wage so for a so for	midson quarter this befor the control of my	wages The result of the r	half	0 2 0 0 0 8 30 17 0 0 0 11 2 0	9 0 15 15 15 10 15 15 15 15 17 6 11 12 	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
P. 91	Elisabeth Tar francis the C John West h John Taylor h severa Collected i first halfe nuall pay . pparell Buildinge Carriages Day labourer 'Mr. Scudamo Gifts Houshold fur Inck, pap(er Kinge his Se Leiwns	hepard ylor her ooke is wage is wage all Tota nto one a yeare mts re his fu rniture , and continued , and continued	his quer wage so for a so for	midson quarters this befor the control of my	wages The last and a Tot cooke are Brother	half	2 0 0 0 8 2 30 17 0 0 0 11 2 0 0	9 0 15 15 10 15 15 7 6 11 12 	000000000000000000000000000000000000000
P. 91	Elisabeth Tar francis the C John West h John Taylor h severa Collected i first halfe nuall pay . pparell Buildinge Carriages Day labourer 'Mr. Scudamo Gifts Houshold fur Inck, papler Kinge his Se Leiwns Law charges	hepard ylor her ooke is wage is wage all Tota nto one a yeare mts re his fu miture , and cervice	his query wagers for a strong f	midson quarters s Midson quarters this bo for the second of my	wages The last of and a Tot cooke the transfer and a Tot cooke the tra	half	2 0 0 0 8 2 30 17 0 0 0 11 2 0 0 0	9 0 15 15 10 15 15 15 17 6 11 12 	000000000000000000000000000000000000000
P. 91	Elisabeth Tar francis the C John West h John Taylor h severa Collected i first halfe nuall pay . pparell Buildinge Carriages Day labourer 'Mr. Scudamo Gifts Houshold fur Inck, pap(er Kinge his Se Leiwns Law charges London jour	hepard ylor her ooke is wage is wage all Tota nto one a yeare mts re his fu miture , and or rvice ney	his quere wage so for a so for	midson quarters s Midson quarter this befor the second of my	wages Ter last r and a Tot cooke te Brother	half	2 30 17 0 0 0 11 2 0 0 0	9 0 15 15 10 15 15 15 17 6 11 12 9	000000000000000000000000000000000000000
P. 91	Elisabeth Tar francis the C John West h John Taylor h severa Collected i first halfe nuall pay . pparell Buildinge Carriages Day labourer 'Mr. Scudamo Gifts Houshold fur Inck, pap(er Kinge his Se Leiwns Law charges London iour Lost at card	hepard ylor her oooke is wage all Tota nto one a yeare mus re his fu miture l, and cervice ney s	his quer wager wagers for a strong for a str	midson quarters this befor the control of my	wages The result of the r	half	2 0 0 0 8 30 17 0 0 0 11 2 0 0 0 15 7	9 0 15 15 10 15 15 15 17 6 11 12 9	000000000000000000000000000000000000000
P. 91	Elisabeth Tar francis the C John West h John Taylor h severa Collected i first halfe nuall pay . pparell Buildinge Carriages Day labourer 'Mr. Scudamo Gifts Houshold fur Inck, pap(er Kinge his Se Leiwns Law charges London jour	hepard ylor her ooke is wage is wage all Tota nto one a yeare mts re his fu rniture l, and o ervice ney s	his quere wage so for a so for	midson quarters s Midson quarter this befor the second of my	wages The last and a Tot cooke are Brother	half	2 0 0 8 2 30 17 0 0 0 11 2 0 0 0 15 7 0 0	9 0 15 15 10 15 15 15 7 6 11 12 9 10 5 0	000000000000000000000000000000000000000

^{1 &#}x27;Mr. Scudamore his has been ruled out and of my brother inserted. 2 ' $56-7\ldots$ ' ruled out, and ' $57\cdot10\cdot7$ ' written below.

	Reparacons Stewardship of Travelling charg Urinalls		f	****	Cotall	***	li 3 1 1 	s 11 17 6	d 10 0 2 6
							-		-
				C=-	1		145	7	4
					grandiss	ıma	146	15	5
P. 92	The severa Collected second hal	into	one	_					
	Annuall payme			7.44	14.0		1	2	11
	Apparrell		200	100.00	1+1:	0.000	45	9	11
	Bouleing greene	9		0.44	***	1.0	6	15	0
	Building			111	***	**	1	19	10
	Building the w	oodho	use	144	(++		10	11	6
	Carryages	***	***	444	***	***	0	1	0
	Crumpe his wa	ter w	orke	444	***	444	68	7	1
	Doore church		* * * *	844	64.4	114	2	14	6
	Footeboy his a		eII	414	111	411	2	. :	5
			***	***	111	21.5	0	4	2
	Funerall		***	111	111	+++	1	3	6
	Gifts		+114	2.03	111	444	12	12	0
	Household furn			***	***	0.00	1	6	6
	Mr. James			***	114	911	0	2	_
	Kings service	***		***	***	414	5	15	10
	Law charges	***	111	***	22.5	***	0	6	6
	Lost at cards	of M		144	***	***	0	5	0
	Lost in telling		_	***	***	177	1	19	3
	Messengers		411	***	499	111	0		
	Money bags	* * *	***		4+4	***	9	5	0
	Old notes	***	2.61	649	111	*1*		4	8
	Pap(er)	***	9.65	0.00	***	***	0	12	0
	Phisick	***	22.6	***	***	444	5	19	3
	Pitching	555	100	***	***	***	1	19	11
	Reparacons	110		453	***	444	4	17	0
	Sincks Scullion	***	***	***	444	1919	0	4	10
	Shoefleboard	+++	111	0.00	64.0	200	0	6	8
	Stable	+0+		649	499.	10.00	38	2	7
	Travelling char	mae	1111	***	***	***	7	7	3
	The Tarras wa		***	***	***		í	5	7
	Urinalls	IAC.					ô	1	ó
	Wages			***	600	***	8	10	6
	112500 111						_	_	_
					Tot	9 + 1	245	3	6
P. 93	The severa Collected whole	into	one						
	Annuall paymts	-		1100	100		3	8	1
	Apparrell			***				15	3
	Bouleing green		***		***			15	0
	9,0011				(20)				-

¹ These two amounts ruled out.

² See pp. 4 and 8.

						li	S	d
Building			****	***	***	19	15	7
Building the we	ood ho	use	***	4112	***	10	11	6
Carryages	***				***	-0	-8	7
Crumpe his was		ke				68	7	[17
Day labourers				***		0	6	- 9
Doores Church				***		2	14	[6]
Footeboy his A		1				2		_ ,
Fuell	T P							
Funerale								
Gifts								
Houshold furnit								
Mr. James								
Inck, pap(er) a				300		0	7	
King, his service			***			6	11	
Law charge		P F 4	***	***	***	2	8	i
Lewne	***	***	***	***	***	0	17	Ô
		***	***	***	***	57	10	U
London Journe	~	***	***	***	***	3	11	6
Lost at Cards		***	***	***	***	0	5	0
		iey	***			1	19	9
Messengers			***	***		_		
Money bags		+++	***	***	***	0	3	0
Old notes		***	***	***	***	9	5	0
Other p(ar)ticul	lers	***	***	***	***	6	2	
Phisick		4++	***	***	430	6	14	[3]
Pitching		***	***		***	5	19	[3]
Reparacons	***	+++	+++	***	0.00	4	12	9
Scullion		***	***		***	0	4	10
Sincks		***	400	995	0.00	4	17	
Shoefle board			***	***		0	6	8
Stable			***	***	0.00	38	2	[7]
Stewardship of	Hereff		411	***	***	1	17	
Travelling char	ge		100	***	***	- 8	13	
The Tarras wal		***	***		***	1	- 5	7
Urinalls	***		***	***	***	0	3	6
Wages		***	***		***	8	10	- 6
4						-		_
				Tot.		391	17	7

A COLLECTION OF ROMANO-BRITISH POTTERY, GLASS AND OBJECTS FROM KENCHESTER, HEREFORDSHIRE

by HILARY WALTON

The pottery, glass and objects described in this report were all collected on and around the site of the Romano-British town of Magna (Kenchester)¹ over a period of several years by Mr. A. J. Whiting. After his and his brother's deaths they were presented to the Woolhope Club by his sister, Miss I. Whiting, and are now in Hereford Museum.

The collection, particularly in respect of the bronze objects, is a large and interesting one, and it is therefore all the more to be regretted that there is no stratigraphical evidence for dating any of these finds or connecting them in any way with the individual structures of the Roman town. Some of the objects are, in fact, of doubtful antiquity, and these have as far as possible not been included here.²

I should like to thank Miss Kathleen Kenyon for introducing me to this collection and for all her subsequent help and advice. I am also very grateful to Dr. Felix Oswald and Mr. D. B. Harden for their reports on the Samian pottery and glass; to Professor Ashmole and the Department of Greek and Roman Antiquities at the British Museum for help in identifying the bronze objects; to Mr. Philip Suggett for making arrangements for me to visit the Maison Dieu Museum at Ospringe; and to Mr. Humphrey Case for supplying references to bone 'apple scoops'.

THE POTTERY

I. SAMIAN WARE

by Dr. Felix Oswald

Plain Samian.

 Form 45, mortarium. Probably Lezoux ware. (Cf., O. & P., LXXIV, 1.)
 Period: Antonine, c. 150—160 A.D.

² E.g., three worked flints, part of a bone bobbin, and several bronze objects, including one which might have been a Roman footrule but proved on closer examination to be inscribed with the figure '80'.

¹ Partially excavated 1912-13 and 1925: Jack, Excavations on the Site of the Romano-British Town of Magna, Kenchester (Hereford, 1916 and 1926). Hereafter referred to as 'Magna'.

- Form 45, mortarium, with lion spout, resembling the bat's head as at Niederbieber. Rheinzaben ware. Period: late Antonine, c. 160—170 A.D.
- Form 31/5b. Height of wall 62 mm. Cf., O. & P. XLVII, 3. Lezoux ware. Period: Antonine, c. 140-150 A.D.
- 4. Form 31/5b. Insufficient for exact dating but probably Antonine, c. 150-160 A.D.
- 5. Form 45, mortarium, small size, base of lion-spout. Period: Antonine, c. 150—160 A.D.
- 6. Fragment, trimmed to be circular, as a counter or for playing 'snobs'.
- Form Tg, small size. Diameter c. 140 mm. Cf., O. & P. Plate LX.
 Period: Antonine, c. 140—150 A.D.
- 8. Fragment of flange with barbotine ivy leaves, perhaps of a Curle 11, similar to O. & P., LXXI, 19.

 Period: Hadrian—Antonine, c. 130—140 A.D.
- 9. Fragment of a thin Form 32, cf., O. & P., LXIII, 11. Period: Antonine, c. 140—150 A.D.
- Base of Form 18/31 with imperfect stamp CENSO[, probably CENSORINI. By CENSORINUS of Lezoux. Period: Hadrian-Antonine, c. 130—140 A.D.
- 11. Base of Form 33 (burnt) with stamp OSBI.M \(^1\) N, by OSBI-MANUS of Lezoux. (As at Caerwent, Wroxeter, London, etc., on 33).

 Period: Hadrian-Antonine, c. 130--140 A.D.
- 12. Fragment of Form 27. Insufficient for exact dating. Possibly Trajanic, c. 110—120 A.D.
- Form 27, rather thick and heavy. Probably Hadrianic, c. 120—130 A.D.
- Form 36, fragment insufficient for exact dating. Diameter c. 204 mm. and similar to 36. Cf., O. & P., LIII, 14. Period: Hadrian—Antonine, c. 130—140 A.D.
- 15. Form 36, diameter c. 206 mm., hence similar to O. & P., LIII, 14. Good glaze, with barbotine ivy leaves on rim. Period: Probably Hadrian—Antonine, c. 130—140 A.D.

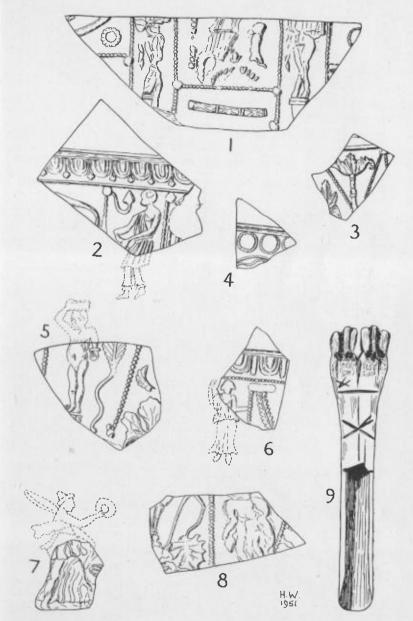


Fig. 1. 1-8, Samian Ware. 9, Bone Gouge. About half natural size.

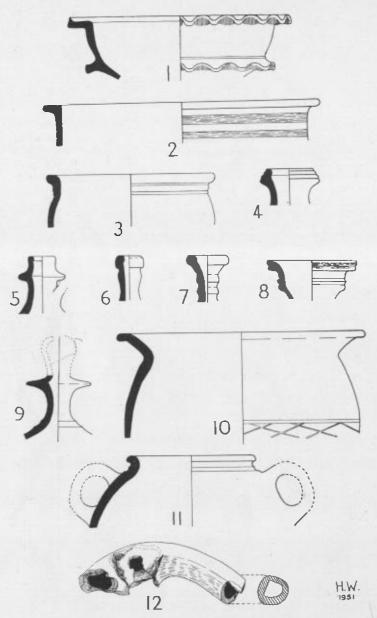


Fig. 2. Coarse Pottery. About one-quarter natural size.

Decorated Samian.

- 16. Form 30. Style of Albycivs of Lezoux; his characteristic bead-row and beaded ring; string of buds in the field; his fasces. Pan (0.709) on a mask; Diana holding a hare (0.1137E) with a club, used afterwards at La Madeleine; here the right leg must have been broken off below the knee before the figure-type was pressed in the mould. Period: Hadrianic, c. 120—130 A.D. (Fig. 1, No. 1.)
- Form 37, base with footstand and basal wreath, similar to that used by Donnavovs of Lezoux.
 Period: Trajan—Hadrian, 115—125 A.D.
- Form 37, style of MERCATOR of Le Graufesenque, his ovolo. Peleus (0.883) receiving sword from Vulcan. Period: Domitianic, c. 90—100 A.D. (Fig. 1, No. 2).
- Form 37, with oblique beads, perhaps by PATERNVS of Lezoux. Trimmed to a circle, for a counter or for the game of 'snobs'.
 Period: Antonine, c. 140—150 A.D.
- 20. Form 37, base, probably Hadrian-Antonine, c. 130-140 A.D.
- 21. Form 29. Rim, incised, perhaps Domitian-Trajan, c. 90—100 A.D.
- Form 37. Style of Donnavcvs of Lezoux, his leaf and acanthus.
 Period: Hadrianic, c. 120—125 A.D. (Fig. 1, No. 3.)
- Form 37. Insufficient for exact dating; the wreath of beaded rings is used by several potters, e.g., Donnavcvs, Ianvaris, Ioenalis, etc.
 Period: Trajanic, c. 110—120 A.D.
- Form 37. Too blurred for any exact determination. Probably Hadrian-Antonine, 130—140 A.D.
- Form 37. Insufficient for any exact determination, but the ovolo is probably that of a Trajanic potter. Period: Trajanic, c. 110—120 A.D.
- 26. Form 37. The usual ovolo border is taken up by circles enclosing rosettes as on a Form 37 in style of ATTIANVS, London (L.M.). By ATTIANVS of Lezoux. Period: Hadrianic, c. 120—130 A.D. (Fig. 1, No. 4.)
- 27. Form 37, worn and blurred. Insufficient for any exact determination. Probably Hadrian-Antonine, 130—140 A.D.

- 28. Form 37, thin and fine work. Insufficient for exact determination, but probably Trajanic, c. 110—120 A.D.
- Form 37. Style of Casvrivs of Lezoux, his leaves. Silenus (0.599) with basket on head and bowl in left hand.
 Period: Antonine, c. 140—150 A.D. (Fig. 1, No. 5.)
- 30. Form 37. Style of Cinnamys of Lezoux. His ovolo; Venus (0.819a) used by Cinnamys. Period: Antonine, c. 140—150 A.D. (Fig. 1, No. 6.)
- 31. Form 37. Style of RANTO of Vichy. Small variety of Victory (0.826) as on Form 37 RANTO style at York. Period: Trajanic, c. 110—120 A.D. (Fig. 1, No. 7.)
- Form 37. Probably by SACER of Lezoux. His trifid ornament and palmate leaf. Mercury (0.537).
 Period: Hadrianic, c. 120—130 A.D. (Fig. 1, No. 8.)
- 33. Form 37, burnt. Style of Cinnamys of Lezoux, his ovolo. Figure obscure. Period: Antonine, c. 140—150 A.D.
- 34. Form 29, lower frieze, much worn. Probably by Frontinvs of La Graufesenque.

 Period: Vespasian, c. 70—80 A.D.

II. COARSE POTTERY

The coarse pottery consists mainly of fourth century types. In addition to the examples illustrated here, there are several bases of beakers of Castor ware, fragments of Castor ware with white painted decoration, three fragments of colanders, and part of a one-handled mug (cf., Wroxeter, 1912, Fig. 18, 40; Magna, p. 65).

Fig. 2.

- Rim of frilled 'incense cup'.
 Light buff ware with frilled rim and carination. Remains
 of cream slip. Cf., Verulamium, Fig. 32, 44, 46 (early
 2nd century). Richborough I, pl. XXII, 30 (late 1st
 century); Segontium, Fig. 100, C.63 (c. 100 A.D.).
- 2. Rim of flanged dish, flat-topped.

 Buff ware with orange painted band along top of rim and similar bands on body. This type of fabric, with painted decoration, occurs on many Roman sites (e.g., Verulamium Theatre, Richborough, Malton) and appears to be most common in the 4th century. Similar flat-topped rims occur at Corbridge on earlier examples (Fig. 6, 78, 82).

- Rim of bowl.
 Pinkish ware with red slip, imitating Samian fabric. Cf.,
 Richborough I, 125-7 (4th century). Wilts. Arch. Mag.,
 xli, p. 154; Lydney, Fig. 26, 28 (4th century).
- Funnel of flagon with inverted 'screwneck'.
 Soft buff ware. Cf., Magna, pl. 39, 2. Sloden, pl. XVIII, 16 (3rd—4th century); Caerleon, 1927–9, Fig. 56, 104–6 (Hadrian-Antonine).
- Neck of flagon, with flange below rim. Buff ware. Cf., Magna, pl. 41, 1, 5. B.M. Guide to Roman Britain, pl. XII, 15.
- Funnel of flagon.
 Buff ware with chocolate brown slip. Cf., Segontium,
 Fig. 78, 49 (late 3rd century). Ashley Rails, pl. IX, 11 (4th century); Richborough II, 164; Lydney, Fig. 27, 47 (4th century).
- Funnel of 'screwneck' flagon.
 Grey ware with white slip. Cf., Ashley Rails, pl. IX, 1 (4th century).
- Neck of flagon.
 Buff ware with orange painted decoration (similar ware to No. 2).
- Neck of 'ringnecked' flagon.
 Buff/orange ware, coated with thick orange/brown slip.
 Two incised rings at base of neck. Cf., Lydney, Fig.
 27, 47 (4th century). Ashley Rails, pl. IX, 12 (4th century); Richborough II, 164 (late 3rd—4th century);
 Segontium, Fig. 78, 49.
- Rim of jar.
 Dark grey sandy ware with burnished soapy surface. Obtuse-angled trellis pattern on body. Cf., Lydney, Fig. 26, 34/35 (late 4th century). Wroxeter, 1936/7, Fig. 10, 8 (post-Antonine); Segontium, Fig. 78, 55 (probably 4th century); Caerleon, 1939, Fig. 11, 16 (probably 4th century).
- Rim of two-handled beaker.
 Castor ware (light brown slip) with traces of white painted decoration. Cf., Verulamium Theatre, Fig. 10, 7 (end of 2nd century). Woodcuts, pl. XXXIX, 4; Woodyates, pl. CLXXXVI, 6.
- 12. Part of base of triple vase.
 Buff ware with burnished surface. Cf., J.R.S., XXIV (1934),
 pl. XXIII, 1. Birdoswald, Fig. 17 (late 2nd century);
 Corbridge, Fig. 9, 14.

GLASS

by D. B. HARDEN

There is nothing outstanding among the collection of glass. It includes:

- (1) A quantity of window-glass of the normal Romano-British type, made in a roller mould.
- (2) Several fragments of bottles, dated mainly 1st—2nd century, A.D.
- (3) Part of the neck and shoulder of a tall cylindrical bottle with cylindrical neck and two small 'dolphin' handles at base of neck. A 3rd—4th century type, of which examples from Britain are not common (Cf., F. Fremersdorf, Denkmäler des röm. Köln I (1928), pl. 30, and Morin-Jean, form 10 with handles like form 18).
- (4) Two handles and three bases of vessels of various shapes.
- (5) Fragment of rim of olla with rim folded outwards and downwards.
- (6) Fragment of body of unguent bottle with triangular body and cylindrical neck.
- (7) Three amorphous lumps which could be waste from glass working.
- (8) Five fragments of turquoise blue and emerald green glass which might be Roman if it could be proved stratigraphically that they were.
- (9) Several glass beads and one faience bead.
- (10) Fragment of bangle, Romano-Celtic type.
- (11) Fragment of a glazed brick or plaque of uncertain use.

OBJECTS OF BRONZE

Fig. 3

A. BROOCHES

- 1. Bow-shaped brooch, with broken head and catchplate missing. Development of a La Tène III type. Cf., Lowbury, pl. X, 50. Rotherley, pl. XCVIII (various).
- 2. Part of T-shaped brooch, with semi-cylindrical spring-case, the chord caught up by a loop on the head. The bow is

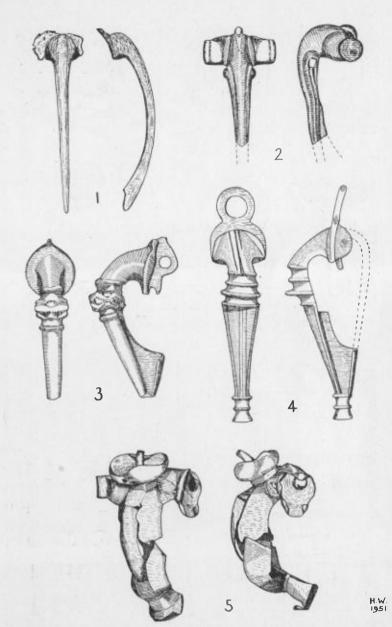


Fig. 3. Bronze Brooches. Approximately natural size.

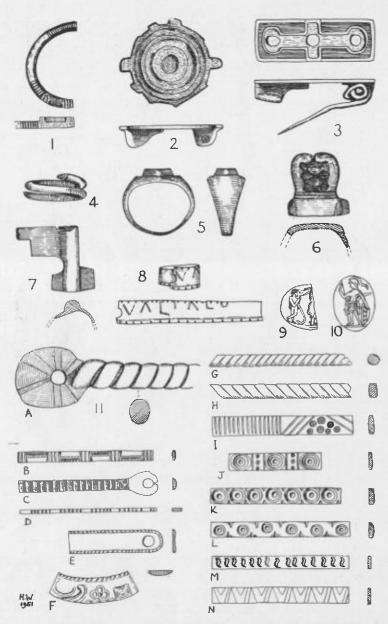


Fig. 4. Bronze Objects. Approximately natural size.

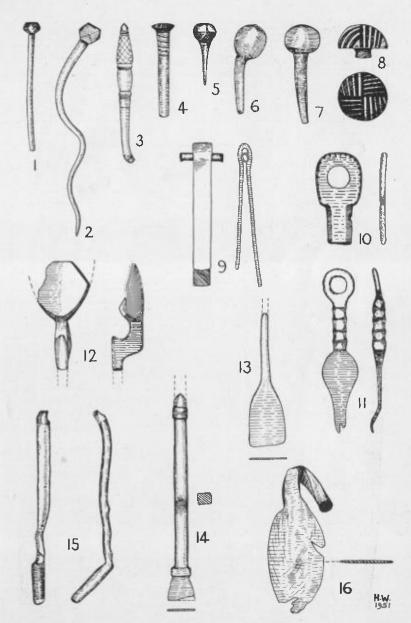


Fig. 5. Bronze Objects. Approximately natural size.

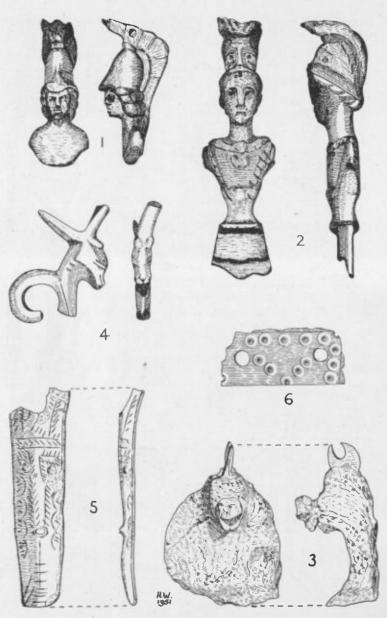


Fig. 6. Miscellaneous Bronze Objects. Approximately natural size.

- decorated with incised lines which terminate in two knoblike projections below the head. Collingwood, type R. Cf., B.M. Guide to Roman Britain, Fig. 59 (dated c. 100 A.D.). Lydney, Fig. 12, 14 (2nd half of 1st century); Wroxeter, 1913, Fig. 4, 1 (probably 80—120 A.D.); Magna, pl. 51, 6.
- Trumpet-headed brooch, with hinged pin. The central acanthus moulding is carried right round the bow. Foot missing. Collingwood, type R (ii). Cf., Lydney, Fig. 12, 17 (larger and more elaborate).
- 4. Trumpet-headed brooch, with pierced head-loop and spring pin. The central moulding is not carried right round the bow and the under-surface is completely flattened. Decoration consists of incised lines. A carelessly made brooch, in which the bow is out of alignment with the head. Collingwood, type R (iii). Cf., Wroxeter, 1912, Fig. 10, 8 (almost identical; found in a deposit dated c. 110—130 A.D.). Silchester, 1938/9, Fig. 8, 2 (120—160/70 A.D.); Newstead, 321 (80—180 A.D.); Corbridge, 1908, 96; 1911, 39 (2nd century); Segontium, Fig. 56, 1; Brecon, Fig. 58, 1; Richborough IV, pl. XXIX, 41.

These two brooches, Nos. 3 and 4, both of a type which is primarily North British, provide a good illustration of the main difference between Collingwood's types R (ii) and (iii). In No. 3, the under-surface of the bow is carefully worked; in No. 4 the acanthus moulding has given place to plain rings which are worked only on the front of the bow. Both types of brooch appear to occur simultaneously on many sites during the late first and second centuries, although R (ii) is thought to be typologically earlier.

5. Remains of cross-bow brooch, with traces of gilding. 4th century type. Cf., Lydney, Fig. 13, and v. Richborough II, pp. 44-45.

Fig. 4

- 1. Part of pennanular brooch. The terminals are not bent over as in earlier examples of this type, but are cast in one with the ring. Cf., Lydney, Fig. 14, and p. 78 (for evolution of type).
- Disc-brooch, with traces of red enamel, and remains of ten knob-like projections round the edge. Cf., Verulamium, Fig. 45, 37 (more elaborate example, found with pottery of c. 125—150 A.D.); Woodyates, pl. CLXXXII, 15 (4th century).

This type of brooch is fairly common on Roman sites in this country and on the continent, and seems to belong mostly to the 2nd century. Some examples have a central projecting boss and are inlaid with elaborate patterns of enamel or milleflore glass.

- 3. Oblong brooch, inlaid with black and red enamel, made in the form of a native shield of a Gallic or Celtic type. Cf., Verulamium, Fig. 45, 34 (80—150 A.D.). Lydney, Fig. 16, 43.
- B. RINGS, INTAGLIOS AND BRACELETS

Fig. 4

- 4. Spiral ring of bronze wire.
- 5. Bronze ring, with raised oval bezel. Cf., Verulamium, Fig. 47, 80 (late 3rd century). O.R.L. (Feldberg), III, 14.
- 6. Part of bronze ring, with mitre-shaped design in the form of two bending figures or animals.
- 7. Part of bronze key-ring. Cf., B.M. Guide to Roman Britain, Fig. 46; O.R.L. (Cannstatt), pl. VIII, 13.
- 8. Part of silvered bronze ring, which seems to have been cut out of a piece of metal bearing an inscription. Some of the letters have been cut away or obliterated by the serrated design which has been worked along the edges.
- 9. Ring-intaglio with standing figure of Roma as amazon.
- 10. Part of ring-intaglio with figures of Pan and a satyr with pilum.
- 11. There are thirty-five pieces of bracelets. Many of them are of twisted bronze wire. The main designs of the decorated examples are illustrated here, and may be compared with the fourth century series from Lydney Park (Lydney, Fig. 17, p. 82-3).
- G. Pins, Toilet Implements, Spoons, Styli, Surgical Instruments

Fig. 5

- 1-7. Bronze pins.
- 8. Bronze stud.
- 9. Bronze tweezers, with remains of bar on which a set of toilet implements would be hung.
- 10. Part of bronze ring for hanging set of toilet implements. (For complete sets of these toilet implements, cf., Wroxeter, 1936/7, Fig. 15, 7; London in Roman Times, pl. XXXIX).

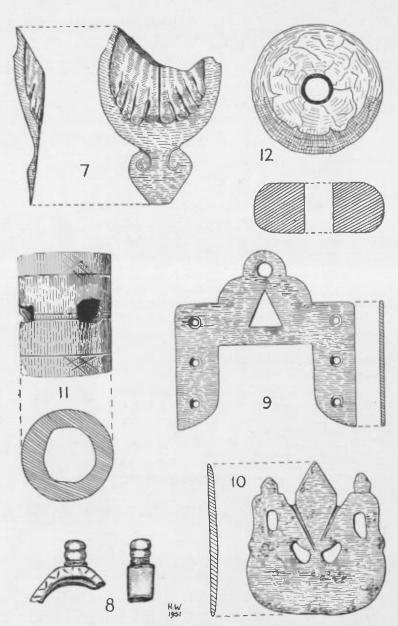


Fig. 7. Nos. 7-10, Miscellaneous Bronze Objects. 11. BONE CYLINDER.

12, SHALE SPINDLE WHORL.

About natural size.

- 11. Bronze nail cleaners. Cf. Wroxeter, 1913, Fig. 5, 13. Richborough, II, pl. XIX, 34-5.
- 12. Part of spoon. Cf. Lydney, Fig. 19, 89. Wroxeter, 1914, pl. XVII, 19.
- 13. Part of stylus (expanded end for erasing). Cf. Wroxeter, 1912, pl. X, 1, 15.
- 14. Part of stylus. The point and part of the erasing end are broken off. Cf. Brough, 1933, Fig. 7, 4. Strasbourg, Fig. 371, N.
- 15. Probably the butt end of a surgical instrument. Cf. Balmuildy, pl. LI, 8.
- 16. Probably part of spoon-bladed spatula or probe. Cf. London in Roman Times, pl. XXXVII, 4. Balmuildy, pl. LIII, 7.
- D. MISCELLANEOUS BRONZE OBJECTS

Figs. 6 and 7

- 1. Bronze steelyard weight in the form of a bust of Minerva. The crest of the helmet is pierced for suspension. Cf. B.M. Catalogue of Bronzes, No. 1067. O.R.L. (Zugmantel), pl. XIII, 43.
- 2. Bronze bust of Minerva, wearing high Corinthian helmet and Gorgoneion breastplate.

The figure is flattened below the waist to form a handle for an attachment of some kind, which is missing. That this attachment was of iron seems certain from three similar Minervas found at Ospringe¹ and Remagen² in graves, and at Osterburken³, where the iron is preserved in the form of a long, spatulate blade. In the Ospringe example this iron blade is 5% in. long and broadens out to a width of about 2 in. at the end, and there are traces of wood fibre adhering to the front of it (this is also the case at Remagen). Other bronze Minervas which must have been used for the same purpose, to judge from the flattened extremity, come from Silchester,

Pariss and Italys. The Italian examples are of finer workmanship.

It seems likely, therefore, that here we have an instrument in common use both in Italy and the Roman provinces. It has been suggested to me?

¹ Arch. Cant. XXXVI, p. 66 and plate.
⁸ Bonner Jahrbuch 116 (1907), pl. iii, 8.
² O.R.L. (Osterburken), pl. XXIV, 83.
⁴ Reading Museum.
⁵ Reinach, Musée de Saint Germain, under 'Minerva', 18 bis.

Babelon & Blanchet, Bronzes du Bibliothèque Nationale, 'Minerva', 172. B.M. Catalogue of Bronzes, No. 1062.

⁷ By Mr. R. A. Higgins of the Greek and Roman Department of the British Museum.

that it is a surgical instrument of some kind, perhaps a spatula, and that the wood adhering to the blade is the remains of the case in which it was kept. The use of a Minerva handle may well associate it with the cult of Minerva Medica, the patroness of doctors, who was also identified in Britain with the Celtic goddess Sul, whose temple was at Bath. Scalpels with handles in the form of heads of Minerva Medica occur fairly commonly in Italy (there are several examples in Naples Museum), but I have so far been unable to identify the shape of the blade with any known type of surgical instrument. The usual form of spatula or instrument for mixing ointments had a smaller, more tongue-shaped blade. On the other hand, the method of attachment of the blade to the handle in the Ospringe example appears to be that used in the manufacture of both Greek and Roman surgical instruments.

A first-century relief in the Vatican Museum of the knife makers L. Cornelius Atimetus and L. Cornelius Epaphra³ shows two knives hanging up, which have flat, triangular blades similar in appearance to the Ospringe example, but not so long. These, however, have no handles. Most of the stock of these knife-makers seems to be surgical instruments, so it may well be that a blade of this shape had some function in surgery.

Alternatively, I wonder whether this Minerva object could be some non-functional form of chisel, dedicated to the goddess in her role of patroness of workmen. A gold vase from the catecombs of Roine⁶ shows a workman working with his chisel while Minerva bends over him, and I have come across several examples of chisels which have blades of similar shape to the knives in the Vatican relief⁵. Petrie⁶ illustrates a chisel from Pompeii which has this same kind of long, spreading blade. Several knives from Zugmantel⁷ seem to correspond quite closely in shape to the Ospringe blade, and some of them have been attached to handles. It is suggested that these handles were of wood, but they might equally well have been bronze, if the knives were to be used for some religious or dedicatory purpose.

Whatever the original use of the Minerva-knives, they could not have been very strong or practical because of the length of the blade and the relatively weak join with the handle. The fact that at least two of them have been found in graves suggests that they were not meant for everyday use.

- 3. Bronze steelyard weight in the form of an animal's head (? bear). The ring for suspension at the top of the head is worn through, and the back is apparently broken, as it shows traces of wood and has an unfinished appearance. There are several examples of this type of steelyard weight from Silchester in Reading Museum.
- 4. Bronze object in the form of a stylised goat, carefully worked on both sides. The front horn is broken, otherwise the object appears to be complete, but it is possible that the front leg was attached to a pin of some kind. An almost identical little goat (with the back horn broken) from Silchester is in Reading Museum.

¹ This last suggestion from Professor Ashmole.

⁸ No. 147, Catalogue Vol. I, p. 275/7, pl. 30.

⁷O.R.L. (Zugmantel), pl. XVI, 17, 32.

- 5. Bronze casing for a knife-handle or similar object. There are holes for attachment by small studs. The decoration consists of fine incised lines and semi-circles.
- Part of an ornamental bronze band with holes for studs.
 The decoration of small circles is similar to that on some of the bracelets.
 Cf., Bokerly, pl. CLXXIII, 17.
- 7. Part of the handle of a bronze jug, made in the form of a standing male figure—a favourite design from classical times. The palmette at the bottom of the handle, which is a usual feature of the design, has degenerated into a pair of simple spirals, but the feet are delicately worked.
- 8. Part of a small bronze object, presumably oval in shape, with a groove on the inner edge as if to contain a seal or stone. The screw-threads on the small projecting knob suggest that it was meant to be tied to something. Possibly it was a form of pendant.
- Bronze ornament with holes for attachment to leather or harness.
- Another bronze ornament for the same purpose. A pendant of similar shape, but with inlaid decoration, from Lincoln, is in the British Museum (J.R.S., XXXIX (1949), pl. X b).
 Cf. also Richborough IV, pl. LI, 180 (65-80 A.D.).
 O.R.L. (Hüfingen), pl. XI, 67, 69, 72-74.

Fig. 8

- 1-2. Feet of caskets or similar objects.
- 3. Steelyard weight in the form of an acorn. Cf. Richborough I, pl. XIV, 21.
 Richborough IV, pl. XXXVIII, 134.
 O.R.L. (Zugmantel), pl. XIII, 32, 33.
 O.R.L. (Stockstadt), pl. IX, 66.
- 4. Hook, probably for use with a steelyard. Cf. Richborough IV, pl. XXXVIII, 133.
- 5-9. Bronze studs.
- 10. Handle of jug.
- 11. Handle of patera.
- 12. Handle of bowl.

 Cf. Caerleon Amphitheatre, pl. XXXII, 2, 11.
- 13. Bronze buckle.
- 14. Part of bronze key.

⁸ E.g., B.M. Catalogue, Nos. 2332-41 (all called 'bistoury handles'); Milne, Surgical Instruments in Greek and Roman times, pl. VI, 1 (scalpel); Caton, Notes on a group of medical and surgical instruments found near Colophon, in J.H.S., XXXIV, 1914).

Illustrated by Daremberg & Saglio under CAELUM, Fig. 990.
 Ibid., Fig. 987.
 Tools and Weapons, pl. XXI, 31.

OBJECTS OF BONE

Fig. 1

 Polished bone gouge, made from the metatarsis of a sheep, and decorated with patterns of incised lines. A similar example, broken, was found at Magna (pl. 53, 1, unstratified).

Bone gouges with this type of decoration are common on Iron Age sites but rare in the Roman period (cf., Maiden Castle, p. 303 ff.). The antiquity of this particular one cannot be proved, and its finished appearance certainly does not suggest an Iron Age date. I am grateful to Mr. Humphrey Case for the idea that it may be a mediæval or modern 'apple scoop'. Cf., All Cannings Cross, p. 99, p. 123. P.R.I.A. (Series C), 33 (1916-17).

Fig. 7

11. Cylindrical hollow bone object, decorated with incised bands and criss-cross patterns. It has two holes, joined by a deep groove on the inside, and a third hole immediately opposite one of them, which has not come through to the outside.

Bone objects of this kind seem to be fairly common on Roman sites in this country and on the continent (cf., Caerleon, 1926, Fig. 18, 12; and 1927-9, Fig. 35, 50; Silchester (Reading Museum); Angmering, Fig. 21, 12 and 14; O.R.L. (Cannstatt), pl. V, 14-15; (Stockstadt), pl. VIII, 43; (Zugmantel), pl. XX, 49; Magna, pl. 53, 4.) They are also found in Greece (cf. Delos XVIII, pl. LXXVIII and p. 242 ff.). They have been variously described as flutes, whistles, cheek-pieces of bridles and parts of caskets.

The groove on the inside between the two holes in this example suggests

The groove on the inside between the two holes in this example suggests that a string was meant to pass through them and be kept firm by the groove. The third hole has been made by putting a drill through the hole opposite to it, but for some reason this third hole has not been drilled right through to the outside.

Fig. 9

- 1-3. Bone pins.
- 4-6. Bone plaques (5 and 6 broken) decorated with patterns of circles.

Cf. Lydney, pl. XXXI A, 147, XXXI B, 155.

Wheeler suggests that these decorated plaques were used as inlay, and this is borne out by the discovery at Richborough of a quantity of these bone casings, some of which have small pointed bone pegs still in position for attachment to a box or casket. (Richborough IV, pl. LVII.)

7. Bone counters of various sizes. Cf. Magna, pl. 53, 8-11.

OBJECTS OF SHALE

Fig. 7

Shale spindle-whorl.
 Cf. Maiden Castle, Fig. 111, 21 (4th century).



Fig. 8. Bronze Objects.

FIG. 9. BONE OBJECTS.

LIST OF ABBREVIATIONS

LIST	OF ABBREVIATIONS
All Cannings Cross	The Early Iron Age Inhabited Site at All Cannings Cross, by M. E. Cunnington.
Angmering	The Roman Villa at Angmering, by L. Scott.
Ashley Rails	Excavations in New Forest Roman Pottery Sites, by Heywood Summer.
Balmuildy	The Roman Fort at Balmuildy, by S. N. Miller.
Birdoswald	Excavations on Hadrian's Wall in the Birdos- wald-Pike Hill Sector, 1929, by I. A. Richmond, etc. (C. & W., XXX).
Bokerly	Excavations in Cranbourne Chase, by Lieut General Pitt Rivers.
Brecon	The Roman Fort near Brecon, by R. E. M. Wheeler.
Brough	Excavations at the Roman Fort at Brough- on-Humber, by Philip Corder.
Caerleon	The Roman Legionary Fortress at Caerleon, by V. E. Nash-Williams.
Corbridge	Corstopitum: Report on the Excavations in 1911. Pottery section by J. P. Bushe-Fox. (Arch. Ael., VIII.)
Delos	Exploration Archéologique de Délos, ed. Th. Homolle and M. Holleaux.
J.H.S.	Journal of Hellenic Studies.
J.R.S.	Journal of Roman Studies.
London in Roman	
Times	London in Roman Times, by R. E. M. Wheeler.
Lowbury	The Romano-British Site on Lowbury Hill in Berkshire, by Donald Atkinson.
Lydney	Report on the Excavation of the Prehistoric, Roman and Post-Roman Site in Lydney Park, Gloucestershire, by R. E. M. Wheeler and T. V. Wheeler. (Reports of the Re- search Committee of the Society of Anti- quaries of London.)
Maiden Castle	Maiden Castle, Dorset, by R. E. M. Wheeler. (Reports of the Research Committee of the Society of Antiquaries of London).
Malton	Roman Malton and District, by Philip Corder.

A Roman Frontier Post and its People: The Fort at Newstead, by J. Curle.
An Introduction to the Study of Terra Sigillata, by F. Oswald and T. Davies Pryce.
Der Obergermanisch-Rhaetische Limes des Römerreiches.
First, Second, Third and Fourth Reports on the Excavations of the Roman Fort at Richborough, Kent, by J. P. Bushe-Fox. (Reports of the Research Committee of the Society of Antiquaries of London.)
Excavations in Cranbourne Chase, by LieutGeneral Pitt Rivers.
Segontium and the Roman Occupation of Wales, by R. E. M. Wheeler.
Excavations at Silchester, 1938/9, by A. M. Cotton. (Reports of the Research Committee of the Society of Antiquaries of London.)
Excavations in New Forest Roman Pottery Sites, by Heywood Summer.
Strasbourg-Argentorate, by Robert Forrer.
Verulamium: A Belgic and Two Roman Cities, by R. E. M. Wheeler and T. V. Wheeler. (Reports of the Research Com- mittee of the Society of Antiquaries of London.)
The Roman Theatre at Verulamium, St. Albans, by Kathleen M. Kenyon. (Archaeologia, LXXXIV.)
Excavations in Cranbourne Chase, by Lieut General Pitt Rivers.
Excavations in Cranbourne Chase, by Lieut General Pitt Rivers.
First, Second and Third Reports on the Excavations on the Site of the Roman Town at Wroxeter, Shropshire, by J. P. Bushe-Fox. (Reports of the Research Committee of the Society of Antiquaries of

Wroxeter,	H			Viroconium, Kenyon.	
		LXXXVII	[I.)	TAHER MARSHAL	

FIGURES AND PLATES.

Fig. 1.	1—8 9	Samian Pottery Bone Gouge	Scale	1/2
Fig. 2.	COARSE	POTTERY	Scale	1
Fig. 3.	BRONZE	BROOCHES	Scale	1/1
Fig. 4.	_	Bronze Brooches Rings, Intaglios and Bracelets	Scale	1/1
Fig. 5.		Bronze Pins, Toilet Implements, Spoons, Styli and Surgical Instruments	Scale	1/1
Fig. 6.		Miscellaneous Bronze Objects	Scale	1/1
Fig. 7.	7—10 11 12	Miscellaneous Bronze Objects Bone Cylinder Shale Spindle-Whorl	Scale	1/1
Plate I		Miscellaneous Bronze Objects	Scale	
Plate II		MISCELLANEOUS BONE OBJECTS	Scale	

Note.—The scale of Figs. 1-7 is approximate only, owing to the author's instructions with regard to reduction not being understood by the editor and printer.

GEORGE MARSHALL, J.P., F.S.A., 1869-1950.

By the death of George Marshall on 11th December, 1950. the Woolhope Club lost one of the most distinguished members in its long history, and one who devoted unremitting labour for its welfare for many years.

George Marshall was born at Bicknoller, Somerset, in 1869, the eldest son of George William Marshall, York Herald, who was High Sheriff of this county in 1902, and author of the Genealogists Guide, an indispensable book to all students of family history. His son, who inherited his love of antiquities, was educated at Uppingham, and on 22nd June, 1898, married Constance Marian Baldwin, daughter of George Baldwin of Stourport, and cousin of the late Earl Baldwin. He had three sons and one daughter, all of whom survive him; the last having married Mr. E. Ball.

George Marshall joined the Woolhope Club in 1901. From the first he became an active member and succeeded Thomas Hutchinson as Hon. Secretary in 1916. He contributed a long list of learned papers to the Transactions. As a leader of the Field Meetings, which he organised with much care, previously visiting every place and accurately mapping out routes, he will be remembered with gratitude by all who were privileged to listen to his numerous charming and informative addresses. During the time he was Hon. Secretary he also acted as Editor of the Transactions, which became the great repository of knowledge of the archæology and antiquities of the county he loved so well. His knowledge of Herefordshire was unrivalled, and his skill in communicating this to others was great.

George Marshall was elected President in 1922, and in 1944 the members of the Woolhope Club showed their appreciation of his work as Hon. Secretary for twenty-eight years by presenting him with a cheque and a printed address which stated that "It is a small but sincere expression of the esteem, respect, and affection of your friends. They hope that you may be spared for many years to guide the activities of the Woolhope Club, and to enhance the honour in which your name is held by Archæologists far beyond its circle". This was signed by the then President, Mr. P. J. T. Templer. Two years later George Marshall retired from the office of Hon. Secretary, but never lost interest in the Club, and its welfare was very dear to him until the end of his life. A few days after the Annual Meeting, on 11th April, 1946, he was taken ill, and never recovered the use of his right side. He bore this affliction with fortitude and cheerfulness, and despite difficulty of using his

face page



MARSHALL,

GEORGE

left hand he was determined to write a history of Hereford Cathedral which he had studied intensively for many years. This he succeeded in doing, and it is sad to think that the book was not published until exactly a month after his death. After his illness began he also wrote a monograph on *Herefordshire Fonts*. Both these works show his great scholarship and ability.

In addition to his work for the Woolhope Club, George Marshall occupied many public positions. He held the office of Justice of the Peace for the county, was a member of the Hereford Public Library, Museum, and Art Gallery Committee, being Chairman of the Museum and Art Gallery Sub-Committee for many years, and was a valued member of the Advisory Committee for the Care of Churches. In all of these and other offices he served his county faithfully and well.

In character George Marshall was gentle, shy and reserved, but beneath the surface was a love of his fellow men. Those who knew him well realised how great was his charm and quiet sense of humour.

In his will he bequeathed his valuable library of books and manuscripts to the Club, together with the sum of £250 for its maintenance and upkeep. This with a President's Badge, which has been given in his memory, will keep his name before future members of the Club and be an inspiration to others to follow his example in service.

F. C. M.

FRIENDLY SOCIETIES IN HEREFORDSHIRE

ADDITIONAL NOTES1

GOODRICH AND WILTON

Mr. Shaw Wright has sent me a note recording that there was a society at the Boat Inn, Goodrich, in 1816, and another at the Bear Inn, Wilton, in the same year. No other particulars of these have been found so far.

WHITCHURCH

The Rev. D. O. Thomas, now of Stathern Rectory, has sent to the City Library, Hereford, a copy of the Articles of the Friendly Society held at the Crown Inn, Whitchurch. This was instituted 'June XXVIII, M, DCC, LXXXIII'. The articles were printed by Charles Heath, of Monmouth, in 1805. Here the system of providing liquor was rather different from other societies. The sum of 8/- was allowed to be spent at every meeting, but if the membership exceeded 80 then 10/- was allowed. Other rules not found elsewhere in the county were, no one under 18 years of age to be admitted unless he could earn eighteen pence daily at his trade, only ale and cider were to be consumed at the meetings, the price of the latter not to exceed that of the former, and the members were to provide themselves with staves to be carried on each of the two feast days. The banner of the Club still exists and it is hoped will soon be given to the Museum.

LEDBURY

THE GEORGE INN. A written copy of the rules of this society dated 3rd February, 1794, shows that the Society had then been in existence for some time as it records that money had been lent from the box to members in the past which was prejudicial to the society.

THE LION. This society is not recorded hitherto. It was held at the Lion Inn, kept by Richard Jones, and was founded on 2nd November, 1791. No one was admitted unless he had had smallpox, a rule I have not noticed elsewhere. Also the members promise to prefer and employ each other in their trades and employments before any other that is not of the society except

for a reason approved by the members. There is an interesting list of fines at the end of the Articles the highest being 10/- for an attempt to dissolve the society. The rules were printed by W. H. Parker of Hereford.

WHITE LION. If the statement on a broadside giving the rules of this society is correct this was one of the earliest societies in England. It is said to have been 'held regularly ever since the 31st day of May, 1753, and has raised a fund of about 200%.' The broadside was printed by C. Pugh in 1785. The meeting place was the White Lion kept by Elizabeth Grundy at this time. There is nothing exceptional in the rules. This society also is not recorded hitherto.

N.B.—This information about Ledbury Clubs is taken from a collection of printed papers given to the City Library by Mrs. Garrood.

HEREFORD

The Rules of the Amicable Society held at the Grey-Hound Inn state that it was begun on 27th November, 1779, and the articles were altered and re-printed on 8th September, 1794, by W. H. Parker. This society is not recorded in the list published by the Registrar of Friendly Societies in 1855 and therefore had disappeared by this time. Another of the same name was held at the Booth-Hall. The Grey-Hound was kept by Edward Lane in the parish of All Saints.

F. C. M.

WILL OF RICHARD KYRLE, VICAR OF FOY FROM 1596-1605.

Among a large number of documents in the Cathedral Library that were examined and catalogued recently was the will of Richard Kyrle, who was vicar of Foy from 1596 to 1605. The former date is given in Matthews' continuation of Duncumb's *History of Herefordshire*, but the last apparently was unknown owing to the disappearance of Bishop Westfaling's Register. As the will was proved on 13th June, 1605 (it was made on 19th December, 1603) it is safe to assume that he died in that year.

The will contains so much of interest to students of genealogy and local history that the following extracts are printed. In these days of food and clothing restrictions the items relating to these can be better understood than they could be in the days of plenty. Also clothes were made to last in Tudor times.

Proved 13th June, 1605.

His body to be buried in the churchyard at Foy, near the Cross if he died in the parish.

Bequeaths :-

To Blanche, Florence, and Mary, daugs. of Anthonie Dewe, 20 marks each. Johan, daug. of his nephew John Kyrle, 20 marks.

Henry, bro. of John Kyrle, £10.

Jane Aravenhill daug, of his niece Margery Aravenhill £20, the same to be paid to his niece Johan Kyrle, daug, of his brother Charles, dec., in trust until the marriage of the said Jane. In the event of her death then to remain with the said Johan, her sister.

The poor in the almshouse at Ross 1/- each, and to the poorest persons there 20/-.

The poor in Walford 20/-; the strange workmen in Bishopswood to be none.

Repair of the church at Walford, 40/-.

,, ,, ,, Much Marcle 40/-.

Rewardyn 40/-.

The forty poorest persons in Much Marcle, 40/-. The six ,, ,, Foy, 6/-.

The forty ,, ,, ,, Rewardyn, 40/-.
The six ,, ,, Yatton, 6/-.

The six ,, ,, Sellack, 6/-.
The six ,, ,, St. Waynards, 6/-

The twenty ", ", Upton Bishop, 13/4.
The twelve ", ", Hentland, 6/-.

The ten ,, Brompton Abbotts, 5/-.

Johan his niece, now dwelling with him, eldest daug. of Charles Kyrle, his best featherbed, best "bedd hilling", two best pairs of blankets, two best pillows, two best pillow beeres, best bolster, best pair of flaxen sheets, two best pairs of hempen sheets, best cloth gown, "rugge gowne", four best flitches of bacon, two best flitches of "mortimas beefe", ten best cheeses, twenty "boulkes" of butter, best towel, six best table napkins, all lands, tenements, etc., in Rewardyn² for life and then to his nephew Henry Kyrle of Upton Bishon her brother in tail male. Failing issue to his godson Thomas, second son of his nephew Richard Kyrle of Whitoxend, Anthony, youngest son of the said Richard, William, eldest son, George third son, of Richard, Francis Kyrle heir of his nephew John Kyrle of Homehouse, Walter Kyrle one of the sons of Robert Kyrle of Walford, and then to the right heirs of the said Robert in tail male.

His nephew Henry Kyrle of Upton Bishop his lands in St. Waynards and elsewhere in the lordship of Irchinfeild in tail male and failing heirs to the said Anthony, and William, Thomas his godson second bro. of William, the said George and Walter, Francis his godson,

and right heirs of the said Robert.

To Francis Kyrle his godson all his lands in Much Marcle in tail male, and for want of issue to his nephew John Kyrle, William Kyrle, his godson, Thomas Kyrle, Anthony Kyrle, George Kyrle, Walter Kyrle, and to the right heirs of the said Robert Kyrle. His said nephew Henry to enjoy the close in Eaton Treagoise for 90 years or life on condition he do not commit waste and pays Eilliam Kyrle and heirs four pence on the feast of St. Luke, with other conditions.

Thomas Kyrle his godson his houses, etc., in Ross in tail male.

Johan Kyrle, daug. of John Kyrle a lease granted by John Johnes (property not mentioned).

Johan Kyrle, daug. of Charles Kyrle, ten bushells of the best rye, ten bushells of the best malt, best cloth gowne, and "Rugge

William, brother of Richard Kyrle, lease granted by the Rt. Wor. Wm. Rudhale.

William Paccar of Gorstle in Howle his best frize coat.

Eight poorest persons in How Caple, 4/-.
To Johan Hardwick of Walford, wid., second best cloak.

Joan Nicolls of Walford second best cloth gown.

Alice Farmer of Walford, wid., worser frize gown and worst cloak with sleeves and best shirt.

His nephew Robert K. sole exor., to whom he gives all his goods, household stuff, corn, cattle, plate, ready money and debts due to him.

He desires the said Robert "as I doe specially truste him yee (sic) and also as he hopeth to be saved at the daye of Judgement" that he truly perform the will, etc.

Witnesses:—John Cole, Wm. Cole, scholler in Oxford, John Apperley, Wm. Abrahall, Henry Taylor senr., of Brampton Abbotts.

Codicil:—To Wm. K., son of Richard K., \$5 0s. 0d. yearly for his maintenance at Oxford and Inns of Court for six years.

Anthony K., son of Richard K., fifty bushells of barley.

George K., son of Richard K., four sheep.

Alice Morley his servant six sheep.

Elizabeth, wife of Wm. K. his silver spoons.

2 Ruardean.

¹ Bed covering. Not previously recorded for Herefordshire.

³ Pillow case.

¹ Martinmas beef. Much of the live-stock on a farm was killed about Martinmas (28th November) and cured. Beef was hung in the chimney, like bacon; other animals were salted. The shortage of food before the days of crops now grown regularly for animals, was the reason for this. Fresh meat was difficult to get until young stock came again.

INQUISITION CONCERNING THE "MISIMPLOYMENT OF LANDS GOODS AND STOCKS" BEQUEATHED BY JOHN ABRAHALL BY WILL DATED 5th FEBRUARY, 1640.

Another document of local interest relating to Foy is in the Hopton Collection in the City Library, Hereford. It concerns the will of John Abrahall of Ingleston. The bequests therein mentioned not having been faithfully carried out an Inquisition was held at Ross Market house on 28th May, 16. The references to the windows to be placed in Foy church similar to those at Sellack are of especial interest. Abrahall died in 1640 without issue. He had married Elizabeth Huntley of Frocester, Gloucester. The Historical Monuments Commission, Vol. 1, p. 65, states that Foy church has an east window in the chancel "of late 14th century character", but as externally in a gable above the window there is a small panel with the arms and initials "I.A." for John Abrahall, it appears that the result of the Inquisition was that the terms of the will were carried out. There is still a charity in Foy called the Abrahall charity.

Herefordshire AN INQUISICON indented taken att the Markett house in Rosse in the said County Hereford the eight and twentieth day of May in the twentieth yeare of the raigne of our most gratious soveraigne Lord Charles the second King of England &c before Bennett Hoskins Esqr Robert Kyrle Esqr John Nourse Esqr John Newton deor in divinity and Richard Clarke gent. By vertue of his Maties Comission under his greate seale of England beareing date att Westmr the fifth day of July in the nineteenth yeare of the raigne of our said soveraigne Lord Charles the second King of England &c to them and others directed for the due execucon of a Statute made in the high Court of Parliamt holden the seaventh and twentieth day of October in the three and fortieth yeare of the raigne of Elizabeth late Queene of England intituled an Act to redresse the misimploymt of lands goods and stocks of money heretofore given to Charitable uses By the oathes of Thomas Philpotts gent John Jenings William Howells Thomas Weare Phillipp Hopkin Joseph Powell Walter Priddy John Gwillym Thomas Weaver William Philpotts George Philpotts John Fisher John Davies and John Bennett honest and lawfull men of the County aforesaid who being duly retorned impanelled and sworne according to the said statute and Comission doe say upon their oath That John Abrahall late of Ingeston in the said County of Hereford Esqr now deceased being in his life tyme about the moneth of February in ve fifteenth yeare of ye raigne of our late soveraigne Lord King Charles ye first of blessed memory possessed of a greate p(er)sonall estate in goods plate Jewells bills bonds other debts and ready money to the value of two thousand six hundred and eighty pounds and upwards did make his last will and Testamt in writeing beareing date the fifth day of the said Moneth of February in (the) said fifteenth yeare of the raigne of our said late Soveraigne Lord King Charles the first and in and by his said will amongest other things did will and ordayne that his Executor att his p(ro)per costs and charges should within the space of three yeares next after his the said John Abrahalls decease

make and erect in the East end of the Chancell in the Church of Foye in the said County a fayer windowe contayning three lights and there place the same after the same manner as such a windowe is placed in the Church of Sellack in the said County And the Jurors aforesaid doe further say upon their said oath That the said John Abrahall did alsoe in and by his said last Will and Testamt give devise and bequeath the new house with the app(er)tennes woh he had then lately built and erected att Eaton Tregoes in the p(ar)ish of Foye aforesaid to be an habitacon and dwelling for three poore people successively for ever To be noisted and placed there to dwell and inhabite by such as should possess his Mansion house att Ingeston from tyme to tyme when and as often as any p(er)son or p(er)sons there soe placed should happen to die or depart therehence And that the said John Abrahall in and by his last Will and Testamt did give and devise the sum(m)e of three shillings of lawfull english money to be weekely paid to every of the said poore people successively And that he in and by his said last Will and Testamt did devise and will that his said Executor should wth all conveniency after his the said John Abrahalls decease purchase lands suffitient to be charged with the paymt of the sum(m)e of three shillings weekely to every of the said poore people for ever successively web should be see placed in the said house or in default of such purchase should charge some other lands weh the said John Abrahall did then posesse wth the paymt thereof for ever according to his true intent and meaneing and that of his said last Will and Testamt he did make and ordayne his brother Paul Abrahall Esqr now alsoe deceased his Executor and shortly after the said John Abrahall died possest of ye p(er)sonall estate aforesaid to the value aforesaid And the said Jurors doe further say upon their said oath That after the decease of the said John Abrahall the said Paul Abrahall his Executor p(ro)ved the said Will in due course of lawe and tooke upon him the execucon thereof and thereby possest himselfe of the said p(er)sonall estate to the value aforesaid And the Jurors aforesaid doe further say upon their said oath That from and after the decease of the said John Abrahall the said Paul Abrahall did onely pay one shilling weekely to every of the said three poore people for and dureing the terme of his naturall life and that about two yeares before the decease of the said Paul Abrahall he the said Paul Abrahall did indeavoure to purchase lands to be charged wth the paymt of the said one shilling weekely to every of the said three poore people successively for ever but did not purchase the same or charge any other lands wth the paymt thereof nor did not erect and build the window aforesaid in the Chancell of the Church of Foy aforesaid according to the true meaneing of the said Will And the Jurors do further say upon their said oath That about fowerteene yeares now last past the said Paul Abrahall made his last Will and Testamt in writeing and thereof made Daniel Kerie late of Hildersley wthin the parish of Rosse in the County of Hereford gent now alsoe deceased his Executor And shortly after the said Paul Abrahall died And ye Jurors aforesaid do further say upon their said oath that after the decease of the said Paul Abrahall he the said Daniel Kerry tooke upon him the execucon of the said last recited will and did dureing his life pay only one shilling weekely to every of the said three poore people And that about eight yeares since the said Daniel Kerie made his last Will and Testamt in writeing and thereof made Elizabeth Kerie his wife and Daniel Kerie sonne of the said Daniel deceased and Elizabeth Executors of his said last Will and Testamt and shortly afterwards died and that after the decease of the said Daniel Kerie the Testator the said Elizabeth Kerie and Daniel the sonne tooke upon them the execucon of the aforesaid will of the said Daniel the Testator And the Jurors aforesaid doe further say upon their said oath that the said Elizabeth Kerie and Daniel the sonne or one of them from and after the decease of the said Daniel the Testator untill ye day of

the takeing of this Inquisicon have paid onely one shilling weekely to ev(er)y of the said three poore people weh have been soe plact and inhabited in the said house att Eaton Tregoes as aforesaid And the Jurors aforesaid doe further say upon their said oath That Daniel Kerie the Testator in his lifetyme nor the aforesaid Elizabeth Kerie and Daniel the sonne since the death of the said Danel Kerie the Testator nor any of them have not built or erected the Window aforesaid in the Chancell of the Church of Foye aforesaid nor have not purchased any lands and charged the same or any other lands with the paymt of the said three shillings weekely to every of the three poore people for ever as aforesaid And the Jurors aforesaid doe further say upon their said oathes that the said Elizabeth Kerie and Daniel the sonne have assetts in their hands of the goods and Chattells woh were of the said John Abrahall the Testator att the tyme of his death unadministered by the said Paul Abrahall and Daniel Kerie deceased suffitient to pay for the erecting and building of the Windowe aforesaid in the East end of the Chancell of the Church of Foye aforesaid in manner & forme aforesaid and to purchase lands suffitient to be charged wth the paymt of one shilling weekely to every of the said three poore people soe to be plact in the house aforesaid successively for ever IN WITNES whereof to one part of this Inquisicon delivered by the said Jurors to ye said Comissionrs and by them to be retorned into his Maties High Court of Chancery aswell the said Comissionrs as the said Jurors have putt their hands and seales And the other p(ar)te remayneing wth the foreman of the said Jurors the said Comission have sett their hands and seales the day and yeare first above written.

Ben Hoskyns Rt. Kyrle John Nourse J Newton Ri: Clarke

EXTRACTS FROM NOTEBOOKS BELONGING TO SIR H. W. A. RIPLEY, BART., OF BEDSTONE, BUCKNELL, SALOP.

These notes are of interest as they supplement other records printed in the *Transactions*, 1937, 1943 and 1946, concerning the iron-works at Downton and elsewhere.

In the beginning of the year 1756 sold to Mr. Knight of Bringewood at 10s. a cord 4ft. wood the wood in that part of Hopton Park which is south of the road going up the Park from the Lodge ground and below the ploughing ground let to John Bevan, and agreed with two men from Richards Castle parish to stock up & cord all the Coppice wood & old Roots & bushes so as to make the ground fit to be ploughed, at 5s. a cord, according to ye measure reckon'd by Mr. Knight to his wood cutters, after tis recorded, & one Guinea over Mr. Knight allowing me 1s. 4d. a cord, the same measure towards the cutting.

I agrees with them likewise for stocking up the saplings in the same manner, without cutting up and cording, at 4d. a tree one with another great & small. The Coppice roots & all 4ft. wood amounted to 268 Cord 7 feet.

The Coppice wood in the rest of the Park fell the next year as on the other side amounted to abt 750 Cord 4ft. wood, & 1 cord of Barkhoop ash sold to Bower the Cooper of Broomfield at £1.10.0.

The faggotts of the Coppice wood sold at 2s. 6d. ye hundred & ye buyers made them.

Towards the end of the year 1756 sold to Mr. Knight the rest of the Coppice wood in Hopton Park wch was fell that winter & the spring following at 9s. 6d. the Cord 4 foot wood & at the same time fell the old Rundell trees wch grew in the Lane Hedges between Hopton Heath and Hopton, and between Hopton & Hopton Hill & some few others, & sold them for Cordwood at the same price only I was to hall them together after they were cut up. I also fell the trees in the Hedges between the park and the Ground below because they damaged the Hedges.

About the end of the year 1758 Mr. Knights men finished coaling the Cordwood in Harrisses Coppice & the old Rundles under the same, both wch were fell abt the end of the year before & sold to Mr. Knight of the Forge at 9s. 6d. ye Cord 4 foot he allowing me something over upon the whole. The Coppice wood amounted to 271 Cord 7 feet \$4 ft. wood & the faggotts were sold at ye same price as Hopton Park, but I think too low a rate.

JACOB TONSON AND SOME 18TH CENTURY MAPS OF HAZLE MANOR, LEDBURY.

Among a large number of miscellaneous pamphlets, printed papers and documents recently given to the Hereford City Library by Mrs. H. Garrood, of Ledbury is an album of four maps on parchment, with terriers, of the 'Hazle Manour' estate, near Ledbury. These were made by Charles Price in 1720 for Jacob Tonson, who bought the manor in the same year, after he had made his fortune as a printer and publisher in London and had retired to Ledbury, where he is buried. He was the owner of Milton's Paradise Lost. Tonson also published works by Dryden, who called him 'the cheerfullest, best, honest fellow living'. The maps are beautifully drawn and coloured.

REPORTS OF SECTIONAL EDITORS

ARCHÆOLOGICAL REPORT FOR 1949.

By H. J. POWELL, A.R.I.B.A.

BOWER FARM, HOLME LACY.

Whilst carrying out extensive alterations at the Bower Farm, Holme Lacy, the builder discovered a lancet window in a stone wall at the side of, and behind, the drawing room fireplace. I carefully examined this lancet window and noticed that the exposed surface was the outside of the opening and that behind there were splayed jambs. The window was constructed of dressed stonework and the head was made out of one stone although this had cracked through the centre. Over the head was a rough relieving arch. In my opinion this arch was not formed in the true Gothic style and dates, I should suggest, from the late 16th or early 17th centuries.

It is probable that it let light into a circular staircase which was formed in the deep recess at the side of the fireplace, many examples of which exist around these parts. I should think that the reason the window is so low is that the staircase went down to a cellar in addition to going up to a first floor.

I asked the foreman on the job to let me know if he found any further signs of this staircase or any remains of a cellar but I heard nothing further about the matter. I took measurements of this arch and Mr. Morgan photographed it.

SWINFIELD TOMB AT HEREFORD CATHEDRAL.

At the request of Mr. F. C. Morgan I asked Mr. Walter Davis, who is a very experienced stonemason, to examine the Swinfield tomb in the Lady Chapel of Hereford Cathedral with a view to ascertaining where the stone was quarried. He was of the opinion that the tomb was carved from Cradley stone which adds considerable weight to the belief that the work was carried out in the district.

CHURCHYARD CROSS AT BOSBURY,

The cross at Bosbury was unfortunately hit and seriously damaged during tree felling operations but upon examination it was seen that the original stone shaft had been encased in mortar.

Mr. Walter Jones, who saw the shaft, expressed the opinion that he could repair and dowel it so that the breakage would be practically invisible.

WINCHESTER ACRE.

The following letter from the Sunday Times written in reply to a letter from the Hon. Secretary is of interest:—

"Sir. The acre, in origin, was the amount of land ploughed during the medieval working day; its significance, however, was not in its size but in its yield. Equality in different acres meant equality in output, not equality in size: allowance, therefore, had to be made for fertility, accessibility, and any other factors influencing vield. Moreover, whilst there was this "ideal" acre in the open field system, our forefathers had in fact to deal with "real" acres. Primarily, then, output was the determining factor; size came later. Even so, when size did determine the acre, it was based on a strip of land of definite dimensions and not any parcel of land of a given area. These factors, coupled with the self-sufficiency of the manorial system, made for great local differences. Although the Weights and Measures Act of 1878 defined the size of the acre, there were, even at the beginning of this century, seventeen different acres in use. Cheshire having the largest, and Leicestershire the least, the one being approximately four times the other. It is probable that research would show many more than seventeen during the Middle Ages, the Winchester acre being one of them. This problem is integral with hidage, carrucage, co-aration and all the characteristics of land tenure from the Dark Ages down to present times.

(Sgd.) H. ROBINSON,

Chief Corresponding Member, The Incorporated Society of Inspectors of Weights & Measures, Chester."

RIDING THE STANG.

The following letter addressed to the Hon. Secretary is of interest:—

"Dear Sir, Being a native of Kington, I naturally found much pleasure and instruction while reading H. L. V. Fletcher's Herefordshire. The paragraph on "Riding the Stang", Leominster, particularly interested me as it called to mind such an event that I witnessed in Kington about 65 years ago. The victim was a woman of the name of Price who practised midwifery. What the scandal was about I do not know, but I well remember our charwoman taking me to see the sight. It was a dark wet November night. A procession was formed and led by a man named Walters, or Waters, and known locally as "Roper". He carried the effigy, on which was a placard bearing the words:—

"Too wet to burn her
Too dark to hang her
So we must let her go afloat."

A mob followed beating trays, pans, etc., and eventually arrived at the cottage which was facing the river Arrow, then high in flood. After a noisy demonstration the doggerel was proclaimed and the effigy thrown over the wall into the river. This was the last Stang riding practised in Kington.

I remain, dear Sir,

Yours faithfully,

(Sgd.) CHARLES STEPHENS."

EXCAVATIONS ON THE SITE OF THE NEW TELEPHONE EXCHANGE, HEREFORD.

Mr. F. C. Morgan has prepared the following report:

Careful watch was kept on the site of the new Telephone Exchange, Hereford, but unfortunately finds of archæological interest were small. They consisted of parts of pottery vessels of mediæval date, of coarse ware with black centre and slight greenish glaze and thinner red ware also roughly glazed. Some of this had a band with finger-print decoration. The fragments have been pieced together and will be on exhibition at the City Museum. There were remains of three tygs of the usual type of hard black ware and two 18th century small white pots of a style used by apothecaries.

At the north side of the excavations a segment of a circle of brickwork may have been the base of a well, but there was nothing to indicate its purpose accurately. It was slightly larger in diameter at the bottom than at the top of the few feet remaining, and this is similar to an old well examined by Mr. George Marshall some years ago at Breinton.

BRICK KILN.

Whilst underpinning some foundations last autumn at the residence of Mr. G. Gobat on Aylestone Hill, a large underground cavity was discovered and as it was in close proximity to the building I had the top soil removed. I came to the conclusion that it was a small brick kiln, which probably was fired from the north side where the ground is at a much lower level. It was constructed of bricks with a domed top, part of which had been broken away. It had been filled up with rubbish.

I have since discovered in the Archæological Report for 1946, under an item entitled "Well at Hampton Dene," a mention of a brick kiln on Aylestone Hill and I suggest that this is the kiln mentioned in the archives of the 17th century as the clav in the vicinity is excellent and suitable for brick making.

BOTANY

By Major A. E. W. Salt, M.A.

At the end of 1949 it was still doubtful how far it would be possible to preserve any part of the unique flora of the Little Doward which was threatened by the insistent demand of the farmers for lime. On 22nd December, 1949, however, with the assistance of Mr. C. Cadbury, I, as the representative of the Woolhope Club, was able to produce a plan, which, while it did not give all we wished, preserved the best area, satisfied the Quarry Company and was agreed upon by the Town and Country Planning Committee of the County Council.

A suggestion from Mr. Gavin Robinson is that observation should be kept upon the Staunton-on-Wye wild service tree and a similar tree on the Batcho at the entrance to the Golden Valley, to which I would add the wayfaring tree on the Rotherwas-Holme Lacy road. Formerly the Woolhope Club scheduled, measured, and watched carefully the great trees, especially the oaks, of this county. This might well be revived in our Centenary year. The beautifying of hedgerows by laburnum was one of the pleasures of Sir Edward Grey on his Northumberland estate. I feel we might encourage more planting of this kind. Canadian maples, rowan trees (mountain ash), limes, flowering crabs and plums, and flowering currants for example.

Local botanists hope to make an appeal for affiliation to the Woolhope Club as have the ornithologists. In 1950, they made expeditions to Stanner and to the Woolhope area (twice).

The most interesting new finds have been Geranium versicolor from the Kington area, sweetbriar from Mordiford, knotted trefoil and spreading bell flower from Backbury, common pepperwort from Lyde, apetalous pepperwort from Putson, black nightshade from Hampton Park, a great growth of Canadian fleabane (probably brought in railway ballast), henbit dead nettle from Hereford, rue leaved saxifrage from Mordiford, small flowered crowfoot from Breinton, sawwort outside one of our Hereford railway stations, great burnet in the Lugg meadows and mistletoe on a horse chestnut near Lugwardine. In the Mordiford-Fownhope-Checkley area, fragrant orchis, marsh helleborine, bog pimpernel and marsh St. John's wort grow together within half-a-mile—and a completely new plant to the county, the downy pearl antennaria, close by.

I am glad to say that elecampane, in the Golden Valley, asarabacca, the butterfly orchis about Woolhope and at Aston

Ingham still flourish. A small patch of fritillary was brought to my notice by Sergeant D. Grigg.

The time has come for re-writing the botany of Herefordshire. The county is, botanically, not as it was half a century ago, and many of the plants recorded by Ley and Purchase (the frog orchis, for instance in my own village) have disappeared, while others disappeared, came again, and like the globe flower (*Trollius*) at Norton Canon in 1948, vanished once more.

Deerfold Forest, the river meadows, the Black Mountain valleys, the Woolhope Dome, the Little Doward, Moccas Park are localities which should be preserved. It is there that most local botanists are doing their best work. Mrs. Whitehead has been especially active in and about Hereford.

ORNITHOLOGY

By CAPTAIN H. A. GILBERT and DR. C. W. WALKER

The crow tribe continues to thrive alarmingly. The increase in carrion crows (Corvus c. corone), magpies (Pica p. pica), and jackdaws (Corvus monedula spermologus) is causing serious damage to nesting birds. Of 27 nests in a garden at Bircher, 15 were destroyed or robbed, and the crow tribe are held to blame. (P.W.H.) The raven (Corvus c. corax) continues to increase and spread in the county. A nest was found within a few miles of Hereford last spring, and the young flew: two pairs of ravens are now haunting this district. (L.S. and K.W.). Two areas in the extreme east of the county now hold ravens, but one nest failed in 1950, owing to being blown down by high winds. Ravens are constantly seen, and probably bred this season near our northern boundary in a new area (P.W.H.). In west and north-west Herefordshire the raven's status is, and has been for some years, quite satisfactory.

[There has been a persistent rumour of the presence of a bright yellow thrushlike bird at the Whitcliff near Ludlow this autumn. This was probably a golden oriole (Oriolus o. oriolus) but the record cannot be accepted as certain.]

The hawfinch (Coccothraustes c. coccothraustes) continues to be very scarce. A pair were seen on 23rd April in courtship flight at Swainshill (C.W.W.) and four were seen feeding on hawkweed on 17th August at Weobley (A.E.W.S.). Goldfinches (Carduelis c, britannica) are plentiful, and flocks of over 300 frequented waste ground at Hereford in August and September for thistle-seed, and flocks of 25 to 30 have been noted in October and November feeding on alder-fruit in lower Lugg Valley. Siskin flocks (Carduelis spinus) are reported from Leintwardine and Lucton in January and February (A.W.B., P.W.H.) and on 30th November lesser redpolls (Carduelis flammea cabaret) were seen in alders near Hereford (B.A.J.). On 19th and 20th July a small party of crossbills (Loxia c. curvirostra) were seen in gardens at Kington (R.H.B.), Bramblings (Fringilla montifringilla) were common round Hereford in the early months of the year (January till mid-March), one of the flocks at Baynton Wood numbering 50-60, with a few chaffinches (C.W.W.).

The woodlark (Lullula a. arborea) is slowly recovering from its 1947 low level, though still absent from some of its former locations. It bred at Dinmore (L.S.), and as many as a dozen

were heard in autumn song in October between Wormsley and Mansell Lacy (Mrs. S.T.P.).

Red-backed shrike (*Lanius c. collurio*) bred on Malvern hills (M.A.), but no other report of the bird's presence in the county has reached us this year. Its status in the county has clearly reached a low level.

On 11th April a great grey shrike (Lanius e. excubitor) was seen at close quarters on the ground beside the main road over Brecon Beacons (R.E.R.).

Reports of the pied flycatcher's (Muscitapa h. hypoleuca) breeding—or presence in the breeding season—continue to increase, and fresh areas in the county provide records. In addition to the known sites at Moccas, Garnons, Foxley, Lucton and Gatley, it has been reported this year from Risbury (G.R.), Ross, Haughwood (L.S., A.T.), Welsh Newton (A.T.), and Cagebrook (C.W.W.).

The long-tailed tit (*Egithalos caudatus rosaceus*) is on the way to complete re-establishment: four nests were found in one small area, and a winter flock of 40-50 birds was seen at Lucton (P.W.H.).

The goldcrest (Regulus r. anglorum), also recovering well, bred in many localities—to judge by the amount of song in spring. A nest was found at Bishopstone (H.A.G.)—the first since the great frost.

Only one pair of nightingales (Luscinia m. megarhyncha) appear to have bred this year in the Dinmore neighbourhood.

The reed-warbler was searched for at its only haunt in Herefordshire, but without success. It is feared that it may have to be written off as a Herefordshire breeder. At least one pair of marsh-warblers (Acrocephalus p. palustris) bred successfully at their usual haunt, now almost completely ruined by the march of civilisation, and a nest was successful in another area (C.W.W.).

The black redstart (Phoenicurus ochrurus gibraltariensis) (see 1949 Ornith. Report) continued to haunt the cathedral close until 13th February, 1950, and a cockbird reappeared there on 6th and 7th December (C.W.W.).

The stonechat (Saxicola torquata hibernans), though searched for, has not been seen in the county (P.W.H., C.W.W.).

The green woodpecker (Picus viridis pluvius) is making a slow and patchy recovery. It is noticeably rare in central Herefordshire (H.A.G.) but is coming back well round Lucton, where three pairs nested (P.W.H.) The lesser spotted woodpecker (Dryobates minor comm.) is extremely rare still, but the great spotted (Dryobates major anglicus) is well distributed and nested well. The great spotted is a hardier species, having a more northerly range than the other two, suffered less, and has recovered better after 1947.

About 30 herons' (Ardea c. cinerea) nests out of a total of 46 at Berrington heronry appeared to have been used this spring. Gales caused much havoc, and 25 nestlings were counted dead on the ground (P.W.H.) The old Rotherwas heronry, after four moves, has again been located, and this year consisted of only three nests (L.S., K.W.).

The little owl (Athene n. noctua) remains much less common than before 1947, but the barn owl (Tyto a. alba) appears to have increased slightly, as has also that other useful mouser, the kestrel (Falco t. tinnunculus).

The common buzzard (Buteo b. buteo) continues to flourish. A party of seven were seen circling low over Poston on 10th September, 1950. Three of these dropped the prey which they were carrying, and which were found to be stoats (Miss P.R.) A buzzard with pure white underparts was seen at Moccas on 19th October, 1950 (H.A.G.). A hobby was seen flying at Bishopstone on 22nd June, 1950 (H.A.G.), and at Monnington Avenue on 2nd July (K.J.W.).

A pair of kites were seen in one northern area of the county in January and again in April (E.L.).

A manx shearwater (Puffinus p. puffinus) was picked up alive at Leominster on 18th September, 1950, after a high wind (M.A). The great crested grebe (Podiceps c. cristatus) bred successfully on three lakes in the county (C.W.W.). Flocks of wild geese were noticed flying over on 24th August going due south (Hereford), and on 17th November going south-west (Woolhope), but at too great a height to be certain of the species (I.C.).

The 30th January was an early date for goosander (Mergus m. merganser): a female was shot on the Wye on that date (P.M.). A pair of shoveller (Spatula clypeata) frequented Shobdon decoy pool in the spring, as late as 12th May, but did not breed. By the end of November there were plenty of mallard, pochard, wigeon, teal and one golden-eye (Bucephala c. clanguta) on this pool (H.R.J.). Five goosander appeared on the Wye on 17th December (H.A.G.)—a very early record.

A grey phalarope (*Phalaropus fulicarius*) was seen on a large pond at Preston Wynne on 7th September, after a night of high wind. It was in winter plumage, having only a trace of reddish colour on the breast. It was characteristically tame, swam about actively feeding, and took short flights over the pond. It was not seen after September 14th (C.E.). It was last recorded for the county in 1930.

The green sandpiper (Tringa ochropus) continues as a visitor in small numbers from July till May.

The lapwing (Vanellus vanellus) was slightly more numerous this year. Resident birds bred in a few scattered localities, but

it is still absent from far the greater part of our farm lands. The autumn has brought much larger flocks than we have seen at any time since the great frost of 1946–47, and the lower Lugg meadow has seldom held fewer than two or three hundred birds from August until the present time, and at the peak migration period in September there were as many as two thousand in flock there. But these birds are from the north, and will not repeople our county. Our only hope for its recovery as a breeding species here, lies in absolute protection of birds and eggs throughout spring and summer.

On January 29th an immature little gull (Larus minutus) was seen in company with lesser black-headed gulls (Larus r. ridibundus) on the Wye at Rotherwas, and its peculiar plumage, small size, and unusual flight noted by the observers (A.T., R.B.). This is the first occasion on which the little gull has been recorded in this county.

A corncrake (Crex crex) was heard in Tupsley parish on 22nd May, but apparently moved on, as no more was seen or heard of it (K.M.).

A water-rail's (Rallus a. aquaticus) nest with eggs was found at Rhos-goch on the 18th May (Mrs. H. A. G.).

Note: Initials in brackets are those of Mr. Michael Alexander, Dr. A. W. Beach, Messrs. R. H. Baillie, R. Bower, G. Christmas, Major C. Edwards, Capt. and Mrs. H. A. Gilbert, Mr. P. W. Hinde, Comdr. H. R. James, Mr. B. A. Jones, Mrs. Edward Longueville, Mr. K. Mason, Miss P. Morgan, Mrs. S. T. Polley, Dr. R. E. Rees, Miss P. Robinson, Mr. Gavin Robinson, Major A. E. W. Salt, Messrs. L. Smith, A. Tucker, and K. Witts, to all of whom our thanks are due for their valued reports.

Woolhope Naturalists' Field Club.

PAPERS, 1951.

CENTENARY CELEBRATION DINNER¹

At their centenary dinner on 18th October, 1951, at the Green Dragon Hotel, the Woolhope Naturalists' Field Club received the hearty congratulations of several kindred societies as well as from civic representatives.

The menu card was a reproduction of that humorous effort designed for the club's 25th anniversary dinner by Mr. G. Worthington Smith, a famous fungologist of that period, and repeated references were made to it in the speeches.

Mr. F. C. Morgan, president and honorary secretary, presided over a large gathering, prominent in which were the Mayor and Mayoress of Hereford (Alderman and Mrs. G. F. C. Higginbotham), Mr. W. H. Wright (Chairman of the Herefordshire County Council), and Mrs. Wright, the Bishop of Hereford (Dr. T. Longworth), the Dean of Hereford (the Very Rev. H. R. Burrows), and the following representatives of kindred organisations—Mr. H. Hallett (National Museum of Wales), Mr. P. G. Feek (president of the Worcestershire Archæological Society), Mr. Thomas Overbury (Bristol and Gloucestershire Archæological Society), and Mrs. E. M. Clifford (representing the Cotteswold Field Club).

Several other societies sent apologies for absence, including the British Mycological Society—the Woolhope Club's "grandchild"—the Radnorshire Society, and the Worcestershire Field Club. Also unable to attend was Mrs. George Marshall, widow of one of the club's former stalwarts, and it was agreed to send her the club's best wishes.

The toast of "The City and County" was proposed by the Archdeacon of Hereford, the Ven. A. J. Winnington-Ingram, who said that the club during their 100 years' existence had thrown a great deal of light on the history of the county, its beauty and natural features.

He regretted that much of the city's past glory had not been preserved. In this respect he mentioned particularly the city walls and the old town hall in High Town.

He was, he commented, one of those who would far rather see the old town hall on terra firma than the present one in terra cotta.

Much, however, still remained of the city and county's past, and, although one could not obstruct progress, he hoped that such

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landmarks that remained would be faithfully and carefully preserved as part of the great heritage handed down to them which had made the city and county great.

In reply, the Mayor associated himself with the remarks made by the Archdeacon in regard to the preservation of ancient

landmarks.

As a Yorkshireman he was proud of the state of preservation of the walls of York City—like that of Chester—and it had always been an enormous regret to him that the old Hereford walls had been allowed to get into a state of decay and disrepair. He hoped everything would be done to preserve the very small remnants now known to exist.

Also replying, Mr. Wright took up the same subject.

With all due respect to Hereford, he said, Leominster had shown them an example by preserving Grange Court. He was very pleased that during the years he had been a member of Leominster town council he had been able to assist in buying this property for the town, and he hoped that it would be maintained at a standard of which the Woolhope Club would approve.

Mr. Wright referred to the large number of county residences which were either being demolished or let. Associated with them were a large number of valuable manuscripts, and it was a tragedy that there was not sufficient money, or sufficient good sense, to see

that these were preserved.

"We are not," he added, "a wealthy county with many people, but, however poor we are, I feel we ought to be able to find not more than a halfpenny rate to provide for this work. It would be a great thing if this could be done so that future generations would have the benefit of all this knowledge".

The toast of "The Woolhope Club" was proposed by Mr. Feek, who said he had been much impressed by the character of

the men who formed the club.

Their zeal was such that they began their field days at 6 a.m. or 7 a.m., breakfasting at, say, Bromyard, and ending at night with a dinner at the same hostelry followed by papers on most erudite subjects and discussions thereon. He was glad to know that under their present president and hon. secretary the club were living up to the traditions of the club, whose transactions were their abiding glory.

In beginning his reply, Mr. Morgan read the following telegram from Uganda: "Best wishes for these centenary celebrations, and may the new hundred be worthy of the old.—Christopher

Marshall,"

Taking this telegram as his text, Mr. Morgan referred to the "giants of the past", from Dr. Bull to the late Mr. George Marshall.

Mentioning some of the achievements of the club, Mr. Morgan said that the work in regard to fungi possibly could be said to have led partly up to the discovery of penicillin, because it was the club who started fungi forays which resulted in the foundation of the Mycological Society.

Mr. Morgan proceeded to speak of the archæological activities of the club, especially in connection with the preservation of the city walls, about a third of which still remained at a height of up to seven feet.

"The preservation of such things is," he said, "of both practical and spiritual benefit. I am sure that if we do not learn about the past we cannot possibly understand the future." As to modern architecture, the President referred to two houses recently erected somewhere near Hereford by someone "who ought to be horse-whipped," and which were a striking contrast to houses recently built at Harewood. People who lived in such places as those at Harewood, he said, were all the better for it, and there was no sacrifice of comfort or convenience.

Mr. Morgan also spoke of the manner in which the club's publications were valued all over the world. Recently he had

sent two parcels to America.

In conclusion, Mr. Morgan referred to the longevity of some of the club members—there were at least two over 90 years old—and to the spirit of warm friendliness which had always characterised their meetings.

Mr. O. B. Wallis proposed the toast "Kindred Societies", to which Mrs. Clifford responded, and Dr. C. W. Walker proposed

"The Ladies," the Mayoress replying.

THE PRESIDENT'S BADGE

The President's badge was given to the Club anonymously to commemorate the centenary of its foundation and in memory of George Marshall, F.S.A. The obverse, enamelled in colours, has in the centre a shield bearing a representation of the geology of the Woolhope Dome; above is a star (= astronomy), and below is water (= the Wye) with a salmon in it. Below these are a geologist's hammer and a botanist's vasculum. On either side of the shield is a frond on a white ground. On a blue border 'WOOLHOPE NATURALISTS' FIELD CLUB 1851.' appears in gold letters. The silver-gilt reverse bears the motto of the Club 'HOPE ON. HOPE EVER' and 'IN MEMORY OF GEORGE MARSHALL, F.S.A., HON. SECRETARY, 1917 TO 1946. DIED 11TH DECEMBER, 1950'.

THE GEOLOGY OF DINMORE HILL, HEREFORDSHIRE, WITH A DESCRIPTION OF A NEW MYRIAPOD FROM THE DITTONIAN ROCKS THERE.

By the Rev. B. B. Clarke, M.A., M.Sc. (Presidential Address)

Read 19th April, 1951.

With an appendix by E. I. WHITE, D.Sc., F.G.S.

Some thorough account of the geology of this important Herefordshire landmark is long overdue. It is of interest to record the very brief account our former president, W. S. Symonds, wrote some eighty years ago. Writing on the Old Red Sandstone in "The Records of the Rocks" he said that "Dinmore Hill between Hereford and Leominster is a good example of the succession of beds of the Lower Red epoch capped by strata that pass into those which for the sake of definition we may call the Middle Old Red". How shrewd Symonds was in penning this single carefully worded sentence! Though we use different terms today one of the things I hope to show you is that he was right in claiming that two distinct formations are present at Dinmore.

Although detailed studies of individual localities in the Old Red Sandstone are still all too few, general Devonian geology has been moving fast in recent years. Last year E. I. White suggested two time divisions for the upper part of the Devonian rocks of the Welsh Borderland in addition to the two divisions of the lower part that have been in use for some time, thus dividing the whole system into four time divisions: the Downtonian, Dittonian, Breconian and Farlovian. For parts of these he has suggested smaller time divisions, or zones, each indicated by the presence of a zone fossil. Although by no means has the whole system yet been zoned, what has been done will be a very great help to all who seek to study these rocks. It has been my purpose to see if I could place the rocks at Dinmore in any of these new zones and I am glad to say in spite of the great scarcity of fossils, always a serious problem in the Old Red, it has been possible to establish two of them.

TOPOGRAPHY

As may be seen from Fig. 1, Dinmore is not an isolated hill but part of a large mass of upland rising to a height of over 700 feet.

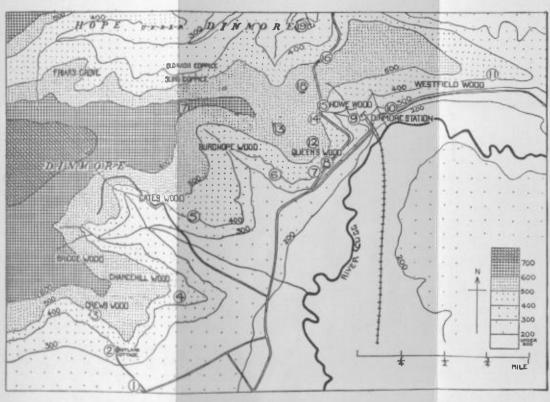


Fig. 1. Physical Features and Key Map of Dinmore Hill. Note-The ringed figures indicate the localities referred to in the text where they are shown by the same figures in brackets.

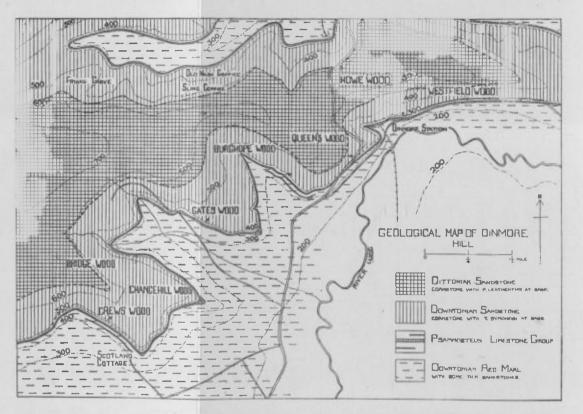


Fig. 2.

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COMPILED SECTION AT CREW'S WOOD

FROM EXPOSURES IN THE TRACK FROM WELLINGTON TO CREWS WOOD GUADRIES SITE 3 ON KEY MAP MASSIVE. PURPLE CANDISTONE WITH SOME COARSE. CREY COMMISTONE WITH SOME GUARTZ PENDLES T. SYMONDSI PACHYTHECA REY CLAY WITH ISOLATED LIMESTONE REY ARGILLACEOUS LIMESTONE RED MARL GREY ARGILLACEOUS LIMESTONE RED MARL OHCHUS SPINES SCOTTAGE STATES OFFICE WITH RED 2 GREEN CORRESTONE, INFLOW RED MARL

Fig. 3.

SITE ON KEY MAP 250 RED PLAGEY MICAGEOUS SANDSTONE

The map only shows Dinmore Hill itself, but the whole mass is shaped like a letter C of which Dinmore forms the lower arm. The left hand upright is formed by Westhope Hill and the upper arm by Winsley Hill. The river Lugg winds round the great mass of Dinmore in a bend rather like a carpenter's brace and there must be few rivers exhibiting a bend as curious as this. Tributaries of the Lugg have cut their way into Dinmore Hill to form deep valleys and these add greatly to its attractiveness as well as providing an interest to the field geologist in tracing his beds round these valleys. The map in Fig. 1 in addition to showing the topography of Dinmore will serve also as a key map for the sites of the various quarries and fossil localities later to be described. The bracketed figures given hereafter in the text and in some of the sections refer to the same figures on this key map where they are shown in

STRATIGRAPHY

It will be seen from Fig. 2 that the rocks making Dinmore Hill fall into two formations: the Downtonian, the lowest of the four divisions of the Devonian system, and the succeeding Dittonian. Later I will show how the fossils I have found indicate this twofold division.

DOWNTONIAN

Over the whole of the Welsh Borderland the Downtonian rocks consist of some one hundred feet of Grey Downtonian followed by 300 feet of Red Marls with thin sandstones. These are followed by the Holdgate Sandstone some twenty feet thick and of doubtful persistence. Above this is a further 500 feet of Red Marls and then the Psammosteus Limestone group. This is a group of marls, sandstones and a number of bands of argillaceous secondary limestone varying in number from one to four. One of these is thicker than the others and usually known as the main limestone. At the top of the Downtonian, if we use E. I. White's new zones for delimiting this division, there is sometimes a group of sandstones with thin marls, and this is so at Dinmore.

It is the top 360 feet of this succession of Downtonian rocks that we can see at Dinmore Hill. The thickest succession is seen along the lane running from Wellington to Crew's wood by Scotland Cottage and passing near Wootton farm. Where the lane crosses the road to Upper Wellington near Wootton farm is a deep cutting on the Wellington side of the road. The modern footpath is along the top of this cutting which in summer is completely overgrown but may be entered in winter. In the cutting [1] may be seen a well bedded soft red sandstone. This is not the Holdgate Sandstone as the marls above it are not thick enough. It is only some 200 feet below the Psammosteus Limestone group and is evidently a thin sandstone occurring in the Downtonian Red Marls.

Turning now into the lane leading up the hill towards Crew's wood, on the way up to Scotland Cottage [2] we pass through some 100 feet of the Downtonian Red Marls. These are very well exposed as the level of the lane is well below that of the surrounding fields. This red marl is mottled with green and sometimes has green bands in it. Sometimes it is slightly sandy and shows laminations. It weathers down to a bright red clay. Near Scotland Cottage is a thin group of harder rocks consisting of a rather curious cornstone a foot thick followed by 2 feet 6 inches of soft flaggy dark red micaceous sandstone. The cornstone is a fairly hard calcareous marl pellet rock, red blotched with green in colour. After this there follow more red marls till behind Hill Cottages is the first band of limestone. It is a grey argillaceous nodular limestone of uncertain thickness followed again by red marl. Some thirty feet above is a second band of limestone again nodular. It is grey in colour blotched with red characteristic of the limestones of the Psammosteus Limestone group. Above this is a grey clay and above this again a band of grey hard cornstone some three feet thick and with some quartz pebbles in it. The cornstone is so coarse in texture that it might fairly be described as a conglomerate. Above the cornstone is massive red sandstone. These quarries at Crew's wood [3], from which probably both the limestone and the sandstone above have been taken, make an extensive cutting some 200 yards in length. There is a striking illustration in these quarries of the rapid changes in lithology and thickness that can take place in these beds at the top of the Downtonian in a very short distance. At the south end the cornstone is divided into two by a shale which is two inches thick. At the north end this shale has increased to ten inches. At the south end below the shale is the lower half of the cornstone, but at the north end this cornstone has become replaced by sandstone.

The rocks encountered in this traverse are shown in the scale section in Fig. 3 and, using this as a type section, it will be best now to trace these various horizons in the Downtonian rocks round the hill. At Chancehill wood is the largest quarry at Dinmore in the Psammosteus Limestone [4]. If we make our way up the hill from Holland Cottage on the road to Upper Wellington we pass through the Downtonian Red Marls till well into the wood where the lower and thinner limestone can be seen. The upper limestone, some thirty feet above, is seen to be the thickest and it is this that has been quarried. There are seven feet six inches of it exposed and the base is not seen. The main limestone here is steel grey blotched with green. It is nodular, the nodules being developed in red and green mottled marl. The workings are extensive and there is an old lime kiln at the east end of the quarry. The nodules are very much larger than at Crew's wood and I think there is further evidence of a difference in lithology over quite a short distance. I am of the opinion that part of the thick limestone at Chancehill wood is represented by the grey clay at Crew's wood. A little down the hill from the lime kiln in an easterly direction are three feet of dark red micaceous sandstone. This is not far enough below the limestone to be the same as that at Crew's wood and is evidently another thin sandstone band.

Chancehill wood overlooks the deep valley at the head of which is Dinmore Manor. On the other side of this valley is Gates wood where we can again see the main limestone in some large old quarries [5]. In these quarries can be seen also the cornstone above the main limestone and the massive sandstone which follows that. A scale section of the rocks in these quarries is given in Fig. 4. The limestone is once again a hard nodular limestone with the nodules set in purple marl. Although very careful search was made for a second limestone band here, none could be found though the wooded nature of the ground makes exposures rare.

Moving round the hill into the next valley at Burghope wood the *Psammosteus* Limestone group is again encountered by walking along the track from Burghope Cottages on the main Hereford-Leominster road. There is a large exposure of the Downtonian Red Marls in this track and above this the lower of the two bands of limestone is seen in situ. Turning up into the quarries [6] the second and higher band of limestone is seen at the south end and appears to be some thirty feet above the lower. At the north end of the quarry a beautiful exposure of the red and green marl above the limestone is seen and above this again a brown sandstone with two bands of green cornstone followed by more sandstone.

At Queen's wood the main limestone crosses the Leominster road just above the milestone and can be seen in the road cutting [7]. The sandstone above can be seen a little further up the road in a group of old quarries [8].

The Psammosteus Limestone group is next seen exposed in the stream in Howe wood running down to Dinmore station. Here the main limestone forms a waterfall [9]. The limestone seems to be some seven feet thick though everywhere are thick deposits of calcareous tufa which make this stream course very difficult to study. Otherwise this would be a most valuable field of investigation

The Limestone group is again met with in Westfield wood on the Bodenham road [10]. Four feet of the main limestone are seen and the rock is quite typical, a creamy green stone blotched with red with the usual honeycomb effect on weathering. The base is not seen. The entrance to this quarry is 200 yards east of Dinmore station. Fig. 5 gives a scale section of this quarry and it will be seen that the cornstone which is usually above the main limestone is here replaced by sandstone. There was evidence of a similar replacement at Crew's wood. A little further east and at a higher level is a thinner limestone band, again a nodular

limestone. This is the first appearance of a thin limestone band above the main limestone.

On the north side of the hill the main limestone can be seen in some old workings in the lane from Hope-under-Dinmore over to Burghope wood [19]. The outcrop is a little above the entrance

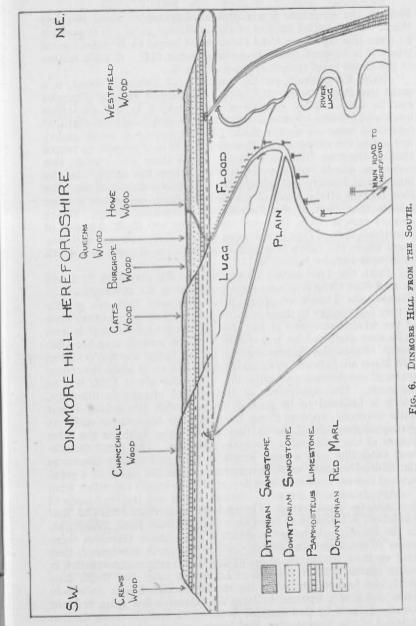
to the railway tunnel.

Some conclusions can be drawn from these observations. It will be found helpful to study the map in Fig. 2 as well as the section in Fig. 6. When we look at Dinmore Hill from the Hereford side we are looking at the Psammosteus Limestone escarpment. Fig. 6 is an attempt to show the hill from the south side stripped of its vegetation to enable the rocks that make it up to be seen. The Psammosteus Limestone group is persistent all along the escarpment. The main limestone is at least seven feet thick though nowhere are the highest and lowest levels seen together so that the exact thickness cannot be determined. The thinner bands associated with the main limestone do not seem to persist in the same way. At Crew's wood and Chancehill wood there is one thirty feet below the main limestone. At Gates wood this cannot be traced but it comes in again at Burghope wood. At Westfield wood is another thin limestone twenty-five feet above the main limestone. There are thus three bands of limestone making the Psammosteus Limestone group at Dinmore, and the middle one is the thickest and called here the main limestone. At Garnons Hill there are four; there the lowest is the thickest.

DITTONIAN

The higher beds which follow the sandstones above the *Psammosteus* Linestone group at Dinmore are of Dittonian age. In contrast to the Downtonian rocks which are mostly red marls with some sandstones especially at the top, the Dittonian rocks at Dinmore are mostly sandstones with a few thin bands of marl. This was also the case at Garnons Hill but it is not always so.

The Dittonian sandstones may be seen in quarries at Queen's wood [12] and [13] and also at Howe wood [14] [15] and [16]. One of the Queen's wood quarries [12] is very large though very disappointing from a geological point of view. It has been made into a rock garden with seats. While their elders rest the children have found that the most unpromising looking quarry face can be made into an excellent slide especially if lubricated with a little marl. If this is a little wet the lubrication is even better. The rock is a flaggy purple sandstone which splits so well as to make it a tilestone and probably this was the original purpose of the quarry. The other quarry [13] on the west side of Queen's wood shows a massive purple sandstone with tilestones above. These are well exposed in the lane close by. The three quarries in Howe wood contain brown sandstones, partly massive and partly flaggy. At the north end of the one on the Leominster side of the hill [16].



Note-In this

To face page 228.

Near Kipperknoll, on the west side of Burghope wood, is a small overgrown quarry [17] where the highest beds at Dinmore can be seen. They consist of well bedded brown micaceous sandstone forming tilestones with a band of very hard close textured cornstone some six inches thick. This cornstone is about eighty feet above the cornstone at Howe wood. It is of interest to record that at Garnons Hill the Dittonian rocks there also contain two cornstone bands the one eighty feet above the other. In the interests of forestry and agriculture it is useful to record that the lime content of the lower of the two Dittonian cornstones is more soluble than that of the Psammosteus Limestone group. Where springs emerge from this cornstone there are thick deposits of calcareous tufa. This is well seen in the station stream in Howe wood where the valley floor is covered with this deposit to a depth of several feet.

From this brief survey as well as from the map (Fig. 2) it will be seen that there is a very sudden change in the lithology at the Psammosteus Limestone group from sediments that are mainly of very fine texture to those mainly coarse. If we take a broad view of the whole succession of the Devonian rocks this change is seen to be even more sudden and startling than in a small area like Dinmore. Below the Psammosteus Limestone group the fine textured Red Marls are believed to be about 1,500 feet thick while the coarse textured sandstones and grits above are also about 1,500 feet in thickness. The significance of this sudden change in lithology, which is believed to be general in the Welsh Borderland if not quite universal, appears to me to be of more importance than has perhaps been realised, for it may throw some light on the later phases of the Caledonian Mountain Building. This great disturbance extending over a great length of time and usually known as the Siluro-Devonian earth movements caused the uplift of a great mass of mountains some thousands of miles in length extending from the Appalachians in America, through Wales and the Highlands of Scotland, to Scandinavia. The material that makes the Old Red Sandstone is believed to have been derived from these mountains. In the lithological change to which I have drawn attention there seems to me important evidence about the earth movements that built up these mountains as far as the Welsh area is concerned. It would appear that at the end of Ludlovian times the Welsh area which had formed the bed of the sea all through Lower Palæozoic times was gently uplifted to form an extensive low lying tract of country drained by slow sluggish rivers which brought down the fine material of the Downtonian Red Marls, and then towards the end

SECTION AT GATES WOOD QUARRIES DINMORE HILL

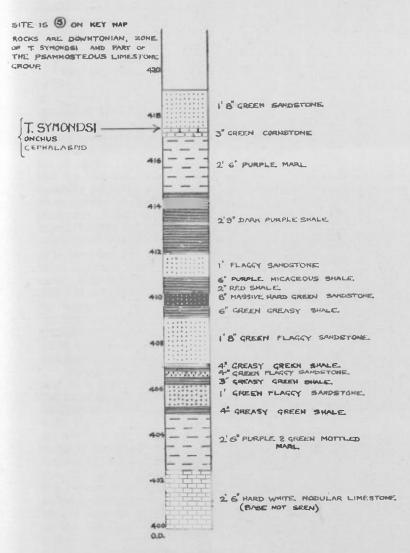


Fig. 4.

SECTION AT WESTFIELD WOOD QUARRIES DINMORE HILL

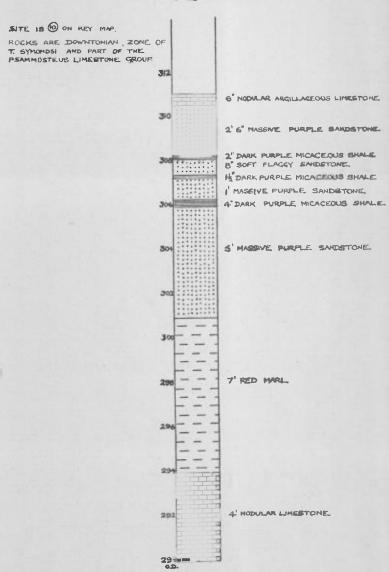


Fig. 5.

SECTION AT HOWE WOOD QUARRY DINMORE HILL

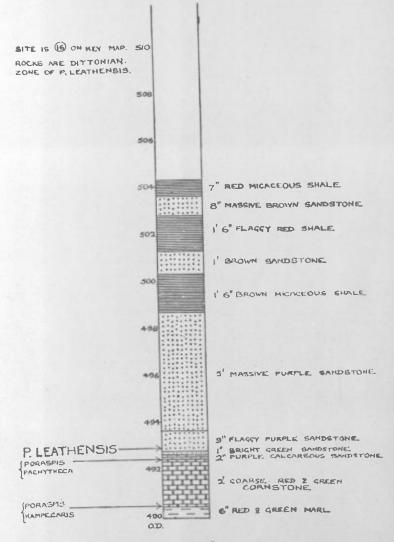


Fig. 7.

of Downtonian times, indeed at this lithological change, the uplift and intensive folding into great mountain ranges began in earnest, and the rejuvenation of the rivers which would naturally follow caused them to bring down the much coarser material that characterises the beds above the Psammosteus Limestone group.

STRUCTURE

The direction of the dip of the rocks is shown by the arrows in Fig. 2. Although I carefully measured the angles of dip as well as the direction in many exposures at Dinmore I came to the conclusion that the angles especially could not be relied upon if the hard rocks whose dip was being measured were in proximity to any thickness of red marls. The marl is apt to cause hill creep and this weakens the foundations of the sandstones so that these tilt at angles which give a freak dip reading. It seems therefore that we can only be sure of the true general dip of the rocks by carefully mapping a persistent band like the main limestone of the Psammosteus Limestone group and comparing this with the contours. When this is done the result is extremely interesting. It will be seen from Fig. 2 that at Crew's wood the main limestone outcrops at 480 feet O.D. At Chancehill wood it is only 450 feet, at Gates wood 400 feet, at Burghope wood 375 feet and at Westfield wood less than 300 feet. There is thus a gradual dip to the northeast. This is brought out in the section in Fig. 6. The tunnel which is cut through the hill from south east to north-west is thus cut along the strike. The main limestone is just above the tunnel entrance at both ends. Incidentally this was a shrewd piece of engineering because the main limestone and the sandstones above made a good solid roof while the rock which had to be excavated was mostly the softer red marl.

This general dip to the north-east suggests that Dinmore is part of a gentle anticlinal fold with a Charnean strike. Exactly the same situation occurs at Garnons Hill some eight miles to the south-west. How many folds there are between will not be known until the intervening Wormsley Hill and Credenhill have been studied in detail. There is a fully preserved upfold with this same strike in the Woolhope Dome. It looks as if a series of very gentle flexures of this trend may affect the rocks of this part of Hereford-shire though their extent can only be known with certainty when the *Psammosteus* Limestone is mapped over a large area. The knowledge when it is attained will be of very great value for water supply purposes because there would be a chance of artesian water in the synclines and this, even in small quantities, is always useful.

L. D. Stamp considers the Woolhope Dome to be an Armorican fold of late Carboniferous or Permian age and these folds may well be of the same age. The direction is rather strange as the earlier

DOWNTONIAN FOSSILS FROM DINMORE HILL HEREFORDSHIRE.

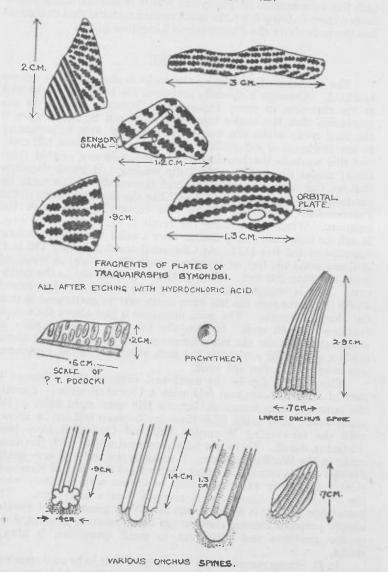


FIG. 8.

folds of this age are north to south like the Malverns and the Pennines while the later ones are east to west like the Mendips and the South Wales Coal Basin. F. B. A. Welch and R. Crookall have suggested some rather similar folds in Gloucestershire of Caledonoid trend to be caused by the interference of the newer east-west folds by the older north-south folds. The folds we have been considering may well be formed in the same way as incipient east-west folds slewed round by interference of the solid mass of the Malverns. The possibility that the folding is earlier and associated with later phases of the Caledonian movements cannot however be ruled out. There is the missing chapter in the record of the Devonian rocks of the Welsh Border where the Middle Old Red Sandstone is not present as it is in the Moray Firth area in Scotland, and we do not know what was going on during that time. As there are no deposits of this age, presumably uplift of some kind took place in Middle Old Red Sandstone times and this is further suggested by the extreme coarseness of the Farlovian Conglomerate of Upper Old Red Sandstone age which makes the great escarpment flanking the Forest of Dean. It may be the folding is associated with these movements rather than with the later ones at first considered. D. L. Dineley has pointed out that some east to west folding in Shropshire does not affect the Carboniferous so that it is presumably of late Devonian age.

PALÆONTOLOGY

The scheme of zoning the Devonian rocks by means of fossil fishes suggested last year by E. I. White includes two zones at the top of the Downtonian, Traquairaspis pococki and Traquairaspis symondsi: and above these two zones at the base of the Dittonian, Pteraspis leathensis and Pteraspis crouchi. While appreciating all the crumbs these rather barren rocks were disposed to yield I was particularly anxious to find, if possible, some of these zone fossils, in order to apply the new zoning scheme to the rocks at Dinmore Hill.

DOWNTONIAN

The lowest horizon to yield fossils was Scotland Cottage at Crew's wood [2]. A number of flat fragments of fish plates were found. These were quite smooth and devoid of any ornament. Etching revealed no ornament on the under side either. One Onchus spine was found and the flat plates must be classed as Onchus also for the present. The cornstone above the main limestone at Crew's wood [3] yielded a very much richer fauna. There were three specimens of the zone fossil Traquairaspis symondsi, Lankester, as well as six specimens of Onchus and one of Pachytheca.

This clearly places these rocks at Crew's wood in the highest zone of the Downtonian, i.e., T. symondsi. The precise position

where these fossils were found is shown in the scale section in

Fig 3; they are illustrated in Fig. 8.

The cornstone at Gates wood [5] yielded four specimens of the zone fossil T. symondsi besides three specimens of Onchus and one Cephalaspid. The position of these finds is indicated in the scale

section in Fig. 4.

The cornstone above the main limestone at Burghope wood [6] was not so profitable. The one undoubted specimen of T. symondsi was found in a small loose piece of rock at the foot of the quarry and so is not reliable as evidence. One very beautifully preserved scale of a fish found in situ at the base of the cornstone may be the scale of T. pococki. This is illustrated in Fig. 8, where some of the specimens of T. symondsi are also shown. There was also one Onchus spine found in situ at Burghope wood. A number of the Onchus spines found in the Downtonian rocks at Dinmore are illustrated in Fig. 8 and the variety shows the need for dividing up this omnibus group.

While these three are the only fossil localities found in the lower beds at Dinmore Hill there is enough evidence to establish the zone of T, symondsi there, and to state that the main limestone at Dinmore is in this zone. D. L. Dineley told us in his paper to the Club that his work had shown that in the Clee Hill area this limestone comes in the zone of Pteraspis leathensis above. This kind of variability is, I take it, what E. I. White means when he

speaks of the Psammosteus Limestone as diachronic.

DITTONIAN

In the Dittonian rocks fossils were found in the cornstones in three localities and in the sandstones above in three also. At Westfield wood above Bodenham Manor [11] the cornstone yielded a few poor fragments with one recognisable Onchus spine. At Howe wood [16] this cornstone and the sandstone above provided the richest fauna of all the localities at Dinmore. The fossils are illustrated in Fig. 9 and the exact levels at which they were found are shown in the scale section in Fig. 7. The sandstone above the cornstone in this quarry yielded four specimens of Pteraspis, one of which is an almost complete shield of the zone fossil Pteraspis leathensis, White. As will be seen from Fig. 9 this consists of the dorsal disk almost complete, part of the dorsal spine, the left hand cornual plate, and orbital plate and a portion of the pineal area. The ornament of all these is beautifully preserved and during the etching process the sensory canals were very clearly developed though after etching was complete the small breaks in the ornament seen in the figure were all that was left. Another specimen was a large fragment of the ventral disk. This is also illustrated in Fig. 9. In addition to the zone fossil this quarry yielded six specimens of the rare fossil fish Poraspis. One

DITTONIAN FOSSILS FROM DINMORE HILL HEREFORDSHIRE

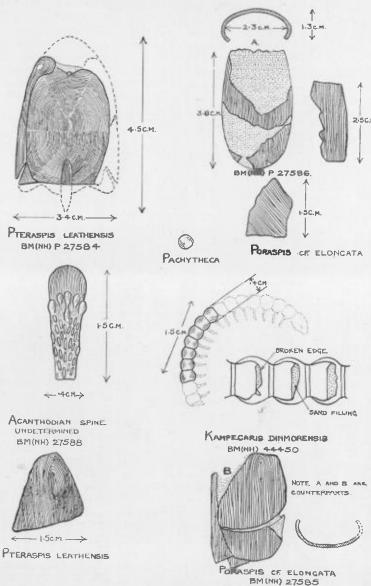


Fig. 9.

Note-The specimens with the letters BM(NH) printed beneath are in the British Museum and the numbers give the references in the collection there.



Photograph by F. C. M.

Fig. 10. Kampecaris dinmorensis. sp. nov.

specimen was found in the cornstone and five in the red micaceous sandstone above. These belong to a species which may be new. They are identified as *Poraspis* cf. *elongata*, and E. I. White has written a description of them in the appendix. Some of the specimens are illustrated in Fig. 9. The ornament of *Poraspis* is similar to that of *Pteraspis* but slightly coarser and the ribbing shows flat characteristic bifurcations.

The cornstone in this same quarry at Howe wood [16] yielded what is perhaps the most important of the fossils at Dinmore Hill. two specimens of the Myriapod Kambecaris. So far as is known these are the first Myriapods to be found in the English Old Red Sandstone. This fossil has long been known from the Lower Old Red Sandstone of Scotland where it was found in Balrudder Den in Forfarshire. Indeed the fossils were known and named before it was realised what they were. The Myriapods are best described as millipedes and they vie with the scorpions for priority in being the oldest known land animals. The body consisted of a number of segments called somites which vary in number from about sixteen to over seventy, depending on the genus. To each segment was attached two legs. The animal seems to have been endowed with great flexibility but the length of the legs seems to preclude the possibility of it completely coiling itself into a tight ball as caterpillars do. B. N. Peach, who has described the Scottish specimens, records the interesting fact that plant remains occur with the Myriapods in almost every case. At Dinmore while plant remains do not occur in the cornstone where the Myriapods came from, they do in the sandstone some two feet above. The Dinmore specimens, one of which is illustrated in Fig. 9, and a photograph appears in Fig. 10, are identified as Kampecaris dinmorensis sp. nov. Some comparison of the larger of the two Dinmore specimens with the Scottish examples of K. forfarensis as described by B. N. Peach will be of interest for there are both differences and similarities. He describes two specimens. In the one case the total length of eleven segments is 7 mm., and in the other sixteen segments measure 20 mm. In the Dinmore specimen seven segments measure 15 mm. so that the length of each segment is considerably greater in the Dinmore specimens than in either of the Scottish ones. In the breadth of the segments there is much more similarity. The two Scottish examples are 3 mm, and 4.5 mm. across while the Dinmore specimen is 4 mm. across. There is no gradation in the width of the somites, this being constant throughout the length of the specimens in all cases. Another genus of Myriapod, Archidesmus, has been found in the Scottish Old Red Sandstone but there are many more segments than in Kampecaris and these are very much smaller. A feature of the Dinmore specimens which will be seen from the drawings is the smooth rotundity of the somites. B. N. Peach does not mention this in connection with the Scottish examples. Another

feature of the Dinmore specimens is that the somites are constructed in such a way as to interlock with a kind of ball joint. The wearing of the specimen has caused the removal of a portion of the more protruding part of the somite and it is possible to see through to the interlocking part of the previous somite underneath. Indeed the edge can be seen and also the sand filling of the body. This is shown in the enlarged segments accompanying the drawing in Fig. 9.

We may diagnose the new species as follows:-

A Kampecaris with rounded, almost globular somites, smooth, or faintly granular, the length about $\frac{1}{8}$ of the width. Holotype (B.M. (N.H.) In. 44450). Fragmentary specimen with seven

somites, measuring 1.5 cm. in total length.

The only associated fossil recorded by B. N. Peach is *Eucephalaspis*. This has a very wide range in the Downtonian and Dittonian beds and its upper and lower limits are not yet properly known so this does not help in comparing the relative positions. It would appear, however, that the Scottish specimens come from beds in the Lower Old Red Sandstone above the Downtonian. M. & A. G. Macgregor mention *Pteraspis mitchelli* as occurring in the same formation with *Kampecaris forfarensis*. The Dinmore specimens it is possible to place precisely in the zone of *Pteraspis leathensis* at the base of the Dittonian.

Other fossils in the Howe wood quarry include *Pacytheca*, one *Onchus* spine and one very highly ornamental spine of an undetermined Acanthodian which is illustrated in Fig. 9.

Some plant fragments occur in the *P. leathensis* zone at Dinmore. The quarry at Howe wood [16] contains a thin band of bright green sandstone immediately above the brown sandstone which has innumerable plant fragments in it but nothing large enough to identify. A buff flaggy sandstone in one of the quarries at Queen's wood [14] contains plant fragments difficult to identify owing to the coarse nature of the material but some are almost certainly *Nematothallus*. In another quarry at Queen's wood [18] a similar sandstone yielded the plant *Cooksonia*.

The higher of the two Dittonian cornstones at Kipperknoll [17] just east of Burghope wood yielded two specimens of *Pachytheca*. There were also a large number of pin head bony fragments but

nothing large enough to identify.

Before concluding this section on the fossils I must describe how the line separating the Dittonian beds from the Downtonian in the geological map in Fig. 2 has been drawn. Clearly if we apply the new zoning scheme, the fossil localities with the Downtonian zone fossil T. symondsi must be placed in the Downtonian, and the beds containing the Dittonian zone fossil P. leathensis must be put in the Dittonian. Equally clear is the fact that there will never be enough fossil localities in these Old Red rocks to draw the line between the two zones, which in this case means the two

formations, except on some prearranged plan. There are three alternatives, to draw it at the lowest level where P. leathensis occurs, at the highest level where T. symondsi occurs, or somewhere between the two. What I have done is to use the first of these alternatives. The line is drawn at the lowest level of the occurrence of P. leathensis using the cornstone which is fairly persistent as a marker and where that does not show itself the line is continued at an even height above the main limestone of the Psammosteous Limestone group.

CONCLUSION

Finally may we relax a little from this rather detailed scientific study of some 300 feet of rocks, and try to visualise the scene as it was at the time of their formation estimated at 275 million years ago. Dinmore at that time was part of a great wide estuary. The open sea was away to the south while in the north lay the great new Caledonian mountains, considered to be some 11,000 feet in altitude in places. The shore and perhaps the mountains beyond were clothed in strange scrub-like little plants like Cooksonia and Nematothallus, for Carboniferous times and the giant forest trees of the coal swamps lay yet a long time ahead. The mountains were cut into valleys by streams and rivers in whose clear water lived strange fishes like Traquairaspis, Pteraspis and Poraspis but, alas, no fisherman to fish these streams, for the coming of man was even further ahead than the forest trees. The climate was sometimes very hot and dry causing intense concentration of the water in the estuary and the formation of the limestones, but at times there seem to have been tremendous falls of rain washing down the coarse material of those conglomeratic rocks the cornstones. At these times the little fishes were washed from the streams far out into the estuary and they perished in the salt water to leave their record that we might read it after all this long time. What of our little Myriapod usually snug under some rock or flat stone? Did he walk across the great Caledonian mountains on his many legs from the shores of that other estuary beyond the mountains which covered parts of Scotland or was there some easier way that we know not of, that his presence bids us try to find?

SUMMARY

The rocks at Dinmore Hill, Herefordshire, are shown to consist of the higher beds of the Downtonian and the lower beds of the Dittonian. The zones of *Traquairaspis symondsi* and *Pteraspis leathensis* are established. The *Psammosteus* Limestone group which here occurs in the zone of *T. symondsi* is traced round the hill, the main limestone being persistent. There is a general dip of the rocks to the north-east so that the southern aspect is a scarp face.

In addition to the zone fossils a new Myriapod, Kampecaris dinmorensis, sp. nov., occurs and is described and compared with the

Scottish specimens of this genus. There are also some specimens of a species of Poraspis, described by E. I. White in the appendix and identified as Poraspis cf. elongata. Plant fragments of Cooksonia and Nematothallus occur in the Dittonian here.

May I express my thanks to Dr. E. I. White, who has always been kind enough to check my fossils for me and identify as far as possible those that were new to me. He has asked that the Dittonian fossils shown in Fig. 9 should be housed in the British Museum. A word of thanks also is due to Mr. H. A. Toombs and Mr. W. N. Croft, who have also helped with the fossils and to Professor L. J. Wills, who drew my attention to Dinmore and suggested I might undertake this piece of research.

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APPENDIX

By Errol White, D.Sc., F.G.S.

Poraspis cf. elongata Kiaer & Heintz. (Text-Fig. 9)

Among the Dinmore fossils are a number of fragments and one good plate (B.M. (N.H.) P.27585-6) in counterpart, of a small Poraspis which is very clearly distinct from the large Dittonian form P. sericea Lankester. The Poraspids are jawless "fishes" (Agnatha) in which the upper surface of the head and body is covered by a single simple plate without a prolonged rostrum or dorsal spine: the ventral plate is rather similar although generally more elongated. Poraspis is distantly related to Pteraspis, the common fossil of the Lower Old Red Sandstone, but any fragment can be

distinguished by the fact that the fine longitudinal ribbing which characterises both genera is flat and smooth in Poraspis instead of being more or less angular and finely denticulated as in *Pteraspis*. Both are punctuated by the pores of the sensory canal system, the pattern of which differs somewhat in the two groups, especially on the dorsal shield.

The best specimen from Dinmore is a nearly complete ventral disc in counterpart which shows most of the ornamentation and the whole shape. The short front margin is transverse—the mouth came just in front of it—and the lateral margins are approximately at right angles to it. These lateral margins run gently upwards, so that the plate, which is narrow and little curved in front, becomes wider and very convex behind, passing via a rounded angle into the hinder margin, both sides of which are directed somewhat backwards ending in a rounded median projection. The median length is 3.8 cm., and the breadth over the curve 1.8 cm. in front and 3.1 cm. behind.

The grooves of the ornamentation are regularly longitudinal except that they diverge at the front margin, and curve outwards from the contre on each side for a short distance.

It is not easy to determine the species of *Poraspis* from a single ventral shield, but it comes very near to P. elongata described by Professors Kiaer and Heintz (I. Kiaer & A. Heintz, 1935. The Downtonian and Devonian Vertebrates of Spitsbergen. Skr. Svalb. og Ishavet, Oslo, 40, p. 82) from the lower part of the Ben Nevis group, which corresponds roughly to our Dittonian (S. Føyn & A. Heintz, 1943. The Downtonian and Devonian Vertebrates of Spitsbergen. Viii. Skr. Norges Svalb.-og Ishavs-Unders., Oslo, 85, p. 84).

It is interesting to note that a specimen of an imperfect dorsal shield collected by Mr. D. L. Dineley from an uncertain horizon in Holbeache Brook near Trimpley, Worcestershire (B.M. (N.H.) P.27523) shows in its ornamentation the whorls sometimes present on the dorsal plate of this species.

In conclusion I wish to express my thanks to the Rev. B. B. Clarke for the opportunity of examining these interesting fossils and for his generosity in presenting them to the National Collection.

THE GREENLY DIARIES By Major A. E. W. Salt, M.A.

(Read 25th January, 1951.)

Many diaries of the late eighteenth and early nineteenth century have been written and published. It was a period when letter writing was practised as an art and when people, separated by the immeasurable distance of bad communications, were in the habit of writing long letters to one another.

There is, however, as far as I know, no diary written by a Herefordshire man or woman dealing with this period, or largely with our county, except one which, by the courtesy of Major-General W. H. Greenly, a member of our Club, I have been privileged to read and transcribe.

The diary, written by Elizabeth Greenly, contains not only a detailed year by year account of the comings, goings, and doings of the writer from 1784 to within six months of her death in 1839, but also copies of letters received or written by her, and other letters of family interest from as early as 1726. The diary and letters were copied in 1835, when the writer was in her 64th year, and are in six bound volumes, written in such clear Italian handwriting that they are most easy to read.

The purpose of these volumes is set out in an introduction to the first:—

"I have often thought that if such persons on whom Providence has bestowed the power of observing and reflecting were to note down such passing events and occurrences as they considered worthy of remark or that particularly interested their own feelings and those with whom they are connected, what a mass of curious (possibly) valuable and useful reminiscences might be collected. By a reference to such documents, lawsuits might be prevented, difficulties solved and mysteries cleared up and, at least, many interesting memoranda would be preserved to which the narrator might, in the decline of life, often recur with pleasure. Being now in my 64th year, I have determined to save my executors the task of looking over heaps of letters and papers, which I have not had resolution to destroy and from which I shall make such extracts as I think are worth preserving, as they refer to events of general importance, to circumstances that mark the character of the times or to incidents peculiarly interesting to my own feelings."

You may think the style of the above stilted and a little solemn. Remember that much of the best literature of the age, the *Spectator* for example, was couched in language much like this, which recorded the opinions of a woman who took life very seriously and found her fullest happiness in using her powers of reflection and observation on such passing events and occurrences as she considered worthy of remark. One more small but important point about the diaries and letters. Although

the writer was self-educated, you will not find a grammatical error in all the six volumes, even in the "simple annals" of her childhood, nor will you find a single mistake in spelling and only one curious phrase "I sat out on my journey".

Eliza (Élizabeth) Greenly, the only child of William Greenly and Elizabeth, his wife, only child of James and Mary Brown of Little Leinthall, was born in 1771 at Titley Court, where Major-General Greenly and his sister now live, and died there in January,

The Greenlys have been established in and about Titley since the 15th century, though The Court, according to The Royal Commission on Historical Monuments, was not built until the early part of the 17th. Their original home was at Upper Mowley in the neighbouring parish of Staunton-on-Arrow, and a fireplace in the Court which came from there bears the initials A. G. and the date 1625. William Greenly, who was educated at Lucton, was High Sheriff of Brecon in 1787 and a Captain in Sir George Cornewall's troop of Herefordshire Yeomanry Cavalry. With others he was responsible for the maintenance of the Kington Bank (Davies, Cheese and Crummer) during the bank crisis of 1825, when the Chepstow Bank, Bodenham's Bank, Hereford, and the Ludlow Bank all failed. He was also always consulted on political matters by Sir George Cornewall and Sir John Geers Cotterell, the stalwarts of his party.

Eliza Greenly's background, therefore, was that of a wealthy, much-respected family, with friends all over Herefordshire, especially in the west, and much of her time as she grew up was spent visiting and receiving visitors from these county houses. According to the custom of her time she was not sent to school, nor did she have a governess, and yet managed to acquire an excellent education, in which, from the age of nine till his death when she was twenty, she was much helped by the wise counsel of her father's first cousin, Daniel Crispin of Clifton Hill near Bristol, whose letters are included in the Diaries. One short epistle will suffice:

"Clifton—October 29, 1782. In Romance the Knight Errant is never to die if the lady bids him live. Alas! such law prevails not in this modern age. If it did, you would, I think, lengthen out my date. I have lately read with pleasure 'Literary and Moral Essays' by Vicesimus Knox. I have likewise run over and not without entertainment a Novel, 'Cecilia' by Miss Burney. Many characters well drawn and well supported, some too much dwelt upon, but, on the whole, a sweet Heroine always in every arduous trial under the influence of Heaven and religion and whose choice is of a person not unworthy of her."

In view of the prevailing sentiment of 1782, a literary criticism of some value to a child of ten. Some of Daniel Crispin's letters are written in French, Eliza soon learnt this language and some Italian, while Welsh was so much her second tongue that she obtained a prize for a Welsh air at the Cardiff Eisteddfodd, and was made a Bardic 'Aspirant' or 'Ovate'. In 1820 the Rector of

Llangattock turned round in the pulpit on hearing her singing the psalms in Welsh.

Afterwards, in successive years, she gave two medals at the Eisteddfodd, one for a collection of Welsh airs, the other for a translation of the Bible, though she notes that this had already

been done in 1104!

Her French became so good that she was able to translate -and have published-the religious memoirs of the Comte de Valmont, a Protestant Frenchman. She learnt to paint in oils and water-colours and one of her paintings of Bredwardine Bridge and church, now in the possession of General Greenly, was exhibited at Somerset House, one of the exhibition galleries of the period. During her annual visit to London with her parents, from 1787 onwards, she had lessons in painting and singing from well-known masters, went to every notable musical event, including Dragonetti's four concerts at houses like Stafford and Devonshire Houses. At home or on her various visits, especially to Moccas, there are constant entries "we had music and spent a most enjoyable evening". Her own repertoire included not only Handel's arias and Purcell's songs, beloved of all young women of her time. but catches, glees and duets. She never missed a play in town. Her mother had a pleasant recollection of Garrick, and there are accounts of Mrs. Siddons, of the young Roscius (Master Betty), the Kembles, and of Mrs. Jordan. At home she dabbled in medicine; in a smallpox epidemic, at Marston Cross, she inoculated all the village children and in a cholera outbreak persuaded various county gentlemen, who had led her out to dance, including Sir John Geers Cotterell, to pay a house to house visit to the Kington cottages, and suggest simple rules of sanitation to prevent the disease. She had a great love of building and altering buildings. This showed itself in improvements in and about the Court, in the construction of a parish school for which she obtained a grant from The National Society of £400, in the erection of a new tower for Titley church to contain her father's tomb (the tower no longer exists, as the present church was entirely rebuilt in 1863), and in the rebuilding and afterwards the demolition of the gallery. An observant person, she was interested in the developments brought about by the Industrial Revolution. Newport "once a mean little town, approached by a wooden bridge over the Romney, is rapidly growing", and made a point of going to see the new Ironworks at Blaenavon. She was interested in architecture and archæology. There is a detailed account of Mr. Lyson's excavations at Woodchester, of St. Donats with its Stradling (Esterling) inscriptions, of Arthur's Stone and of all the great houses she visited including Raby Castle, Belvoir, Wilton, etc., and, in our own county, Stoke Edith and Hampton Court. She took no active part in games or sport, but once played trap ball, once, not very successfully, fished the Great Pool at Titley, once rode to a fall with Sir George

Cornewall's beagles, and was a regular attendant at the Bow Meetings of the Herefordshire Archers (186 sat down to dinner in the tent at the Sarnesfield meeting), though she never shot. She loved dancing, at the Ludlow Bailiffs' Feast, at The Hereford Race Ball, where in her younger days she was led out by the Manager for the first minuet, at the Kington Assembly, or in her own house or other private houses. (On one occasion after 36 successive minuets at a State Ball, George the Third insisted on four Country Dances to wind up with.) At Ludlow she always breakfasted at the Public Breakfast; at Hereford she always dined at the Green Dragon "ordinary".

Eliza's greatest interest, however, was in riding and driving, especially the former. On her little Welsh pony, Shinkin, or on her 16-hand black mare, she accomplished marvellous feats of endurance. She was an early riser—6 a.m. was her usual hour—and thought nothing of riding from Titley to Letton to breakfast with her friends, the Freemans, going on to Moccas to the Cornewall's

for the afternoon and riding home at night.

"I came back from Moccas—fording the river at Brobury Scar—in 2 hours, 10 minutes." "I rode to Llantrisant over Brilley Mountain—breakfasted at Three Cocks and arrived there at 6."

Her flair for horsemanship was inherited. When her father was High Sheriff, he rode to and from Brecon daily. At various times, she drove a phaeton, a curricle, a gig, a dinnet, and even a barouche with four horses.

In politics she was an ardent Pittite. Fox was anathema—and she loathed what she called "social democracy".

"I walked," she says in 1796, "a few evenings ago with Charles Shephard, who is very clever, a great Collector of Coins, but a sad democrat, to a Bookseller of the name of Spence, who deals in the latter, that is in the infinite variety of tokens now in circulation, some of which are become scarce and bear a high price and many made the vehicles of political and seditious opinion. Several that Spence had bore devices of his own framing. One bore the image of a Snail with the Motto 'a Snail may put out his horns'. I guessed the meaning, but pretended ignorance to hear Spence's own explanation. 'Every Animal,' said he, 'has the free use of the powers Nature has given him, but we, Maam, dare not even speak.' Provoked that anyone, especially a little, despicable, insignificant being which Spence appears, should thus dare to murmur against the laws of his King and country, I replied that 'Everybody in this Kingdom was at liberty to speak what ought to be spoken.' He stared at me and denied the assertion, and would, no doubt, have argued the point, had I staid to hear him, but I turned out of the shop, disgusted at an Englishman, so insensible of the blessings of our Constitution."

In 1798 she gives a facy description of the Leominster election of that year by an eyewitness. Mr. Hunter and Mr. Pollen were the successful candidates, the latter supported by Lord Malden's Interest (Lord Malden had married a Coningsby and was living at Hampton Court) and defeated Mr. Robt. Biddulph, who was brought forward by the Duke of Norfolk (of Holme Lacy).

"We walked on Wednesday evening into the Grange and were much entertained by seeing a dance given there by the Duke of Norfolk to Mr. Biddulph's party in which 3 Clergymen joined. One was Mr. James Beebee, another a Mr. Roberts, usually known by the name of 'The Fighting Parson'. His lady was there also a fine but rather masculine looking woman. I thought it rather an unusual and not very decorous sight to see 3 Clergymen hopping round a Maypole to the tune of Alley Croaker. Mr. Pollen is a very handsome. but very young man, a favourite of Mr. Pitt's, who considers him very clever. Polling commenced on Friday and we were very anxious and at one time alarmed, for Lord Malden came in and said that such had been the bribery and art of the Duke's party, he feared they would succeed. It closed. however, in his favor, which put his Agent, Mr. Edwards in such spirits that his sister made us go down to her house and dance on the Grass plot in her Garden, two sets, above 25 couples, which we did till it was so dusk we could hardly distinguish our partners. Mr. Pollen joined us and many of the most respectable of his supporters. On Monday I rejoice to say the poll closed in favour of Mr. Hunter who was soon afterwards chaired, preceded by 3 rows of Constables, a capital band of music playing 'See the conquering Hero comes'. After the Members, the Corporation walked two and two. Mr. Pollen's flags bore a painting of Hampton Court and Lord Malden's arms."

Eliza could still laugh at the joke—" are Tories born wicked

or do they become so?".

In religion she was an ardent Protestant, and welcomed the defeat of the Catholic Emancipation Bill by the Lords. In 1837, after a sandwich in her carriage and a glass of water at the Green Dragon, she listened for over two hours at a Protestant Association meeting at the Shire Hall to a Mr. McNeil—"strikingly handsome, forcible, pathetic, sublime, ironical" and went home content to her rice pudding at 6 p.m. and refused a delicious "piece of

unsalted boiled beef".

Eliza's great friends were the Cornewall daughters, one of whom became Mrs. Frankland Lewis and the other Viscountess Hereford, and she spent pleasant mornings at Moccas, before their marriage, reading Mrs. Trimmer's "Commentary on the Bible" and the proofs of her de Valmont book in the morning and playing and singing in the evening. Dragonetti, the great London organiser of concerts, always came down to Moccas after the season. Her most regular correspondents were Mrs. Waddington, whose son, an old Rugbeian, became French Ambassador at the Court of St. James, and Mrs. Bowdler, whose husband "bowdlerised" Shakespeare. She also knew three poets: Rogers, author of the *Pleasures* of Memory, Southey, brought up by an aunt who was a native of Dilwyn, and Byron, when he stayed at Kinsham, of whom she had little opinion. On the other hand, she liked and believed in Lady Oxford—whom it has become a fashion to slander. She recognised her faults, her impudence and deficiency in judgmentbut as Lady Oxford herself writes-

"You have always been candid in disbelieving wild reports and have been circumspect in your advice."

It is difficult to believe that such a beautiful woman (she was the toast of every tavern on the road) could have been so bad

as she was painted, though Shobdon tradition is against Eliza and

Lady Oxford.

One might expect that Eliza's definite views on conduct and morals and her distinctive character might not attract many suitors. On the other hand she was sweet-tempered, good-looking and wealthy. When yet in her twenties, rumour associated her with Lord Oxford and with Dr. Landon, Rector of Croft and Provost of Worcester College, Oxford, who later became Dean of Exeter, while a Mr. John Whittaker went so far as to consider

the purchase of Moor Court as a residence.

In 1805, a Captain Hughes, egged on by his brother-in-law, Colonel Walsham, became a suitor. However, his attempt at a private interview in the garden was regarded with dark suspicion and disfavour and the outcome was a strenuous refusal. Unfortunately, the disappointed lover could not take his rejection quietly and indulged in a series of anonymous letters to her mother and father. Of these no notice was taken though they were followed up by rude remarks at the Kington Assembly and a challenge from both gentlemen to William Greenly, then between 75 and 80, which was duly disregarded. A Captain Crookes, who was killed in Ireland in 1798, and our great pioneer of modern horticulture, Thomas Andrew Knight, also nibbled. Eliza, however, remained heart-whole and single until on 18th July, 1810-she was now 39we find a significant entry-" Met Admiral Sir Isaac Coffin at dinner" and two later entries, 22nd December, 1810, "Admiral Sir Isaac Coffin came to us. He left on Christmas Day". 1811, 22nd February, Sir Isaac came on 7th February, and went to Liverpool on 22nd February; and a third and final entry "Sir Isaac came unexpectedly and we were married very quietly on April 4th, he taking my name on the occasion". Only Sir George Cornewall knew what was coming, "I see", in a letter to William Greenly, "Eliza's horse has gone lame in the Coffin joint". (Sir Isaac dropped the Greenly suffix two years later, while she retained her maiden name to her death.)

Admiral Sir Isaac Coffin, Bart., was 52. He was gouty but Eliza's mother hoped "as his public and private career is so high, there would be no doubt of her being happy". He had had a curious career in the Navy, having been twice court-martialled, and, on the second occasion, cashiered, though he was reprieved and restored to his rank by a special Commission summoned at the order of the King. His first offence was refusing to take three young officers (all under 14) on his ship, his second—a usual custom, though he made the mistake of being found out—carrying three dummy officers' servants on his pay roll. In both cases Lord Howe was responsible for the prosecution so there may have been personal spite behind them. In 1794 Sir Isaac rescued an able seaman from drowning and was removed from the active list suffering from a rupture. He was, however, appointed a Naval

Commissioner and served in succession in Corsica, at Lisbon, in Minorca and at Halifax and Sheerness. He acquitted himself so well that in 1804 he was made a Baronet and, after his marriage, in 1814, a full Admiral. He sat for the pocket borough of Ilchester from 1818 to 1826 and died, six months after Eliza, in July, 1839, at the age of 80. This bare account of Sir Isaac's naval career gives us little insight into his character. He was bluff and hearty, especially in his relations with ladies.

"He told Mrs. Thomas", the doctor's wife in Kington and a modest little body, "that she was the finest woman he had ever seen with his eyes" and Mrs. Crummer, the bank manager's wife, that "he had planned on her for his second" (and when she wanted a small compass, presented her with an elaborate case of mathematical instruments specially designed by The Superintendent of Plymouth Breakwater).

He was generous and a little foolish with his money "and gave a barrel-organ to Titley church". That he was an inveterate chatterer and gossip (these faults are, after all, peccadilloes), would not necessarily imply that he was a bad husband. He was a friend of "Prinny" (the Prince Regent) and the fact that one cannot imagine Eliza scintillating in the raffish circle at Carlton House or in the Pavilion at Brighton, is by the way. His great, his outstanding fault was his complete instability. He was erratic. Whither the wind listed, he went. After the marriage the bride and bridegroom went first to London, where, at a Carlton House Reception the earrings alone of Eliza's borrowed jewels were worth £2,000. Here they met Sir Isaac's sailor comrades, Mrs. Piozzi, formerly Mrs. Thrale, Dr. Johnson's inamorata, and the Duchesse d' Angoulème, who was wearing her mother's, Marie Antoinette's, jewels for the first time since her execution. Then, after a brief stay at Titley, they went to his friends the Boultons of Soho, where James Boulton had just devised a scheme for privately minting American dollars, and read specimens of Isaac Watts' poetry (did he include "How doth the busy bee improve each shining hour?"), and to the Earles of Everton near Liverpool, where Eliza revelled (the term is not an exaggeration) in Liverpool's three miles of docks—and sorrowed over 1.000 ships idle because of trade stagnation. She describes the intricate processes of cablemaking, and the Blind Asylum, and discusses with a local landowner the rival merits of Holderness and Alderney cattle, Swedish turnips, and the cleaning of rape and linseed. All this was very well but was Sir Isaac, in bed with the gout, a little bored? Back they went to Titley for a few days and off again, on a grand tour all along the south coast, naturally to every naval establishment, as far as Penzance; north to Bristol and Bath, and west to Tenby and Carmarthen. And then, in June, 1812, 14 months after the marriage, at Llanidloes, Sir Isaac left by coach to go north. "I felt much at parting with Sir Isaac, though I little dreamed of the cruel part he was about to play and that I was not to see him for

7 years ". How did she spend these 7 years until one morning in 1819 without warning he turned up at Titley for breakfast. Nothing exemplifies Eliza's conduct so strongly as her courage and high spirit during this bleak interval. Apart from the sentence I have quoted there is no word of complaint. She went about her usual private and social business as if nothing had happened. She did things in and about the house.

"I made a stone seat at the bottom of the Well Walk which I decorated with shells I had gathered on my travels." "I built a stone porch to the house."

She lathed and plastered Rhiwlas Cottage, she built a village shop next to the Stag's Head and, in the same year (1817), laid the floor of the new Garret over the library and took down the old Brewhouse and rebuilt it in stone. She wrote her first volume of practical sermons which "soothed me and kept me from painful thoughts". She made her usual visits to London, saw all the Dioramas and Panoramas on view, a boa constrictor, Indian jugglers, an ox with a shaggy hide at the British Museum, and heard Mrs. Siddons read at the Argyle Rooms. She went to the Three Choirs' Festival and dined in a party of 34, at the Deanery, she was glad to hear from Lady Oxford, she stayed with the Morgans at Tredegar for a great baronial feast—

"200 persons usually fed under their roof and 2 women were kept on full time plucking and drawing chickens."

She observed times and seasons-

"A mill, house and barn were swept away at Mordiford (1812); Hay bridge was injured and the arches of Whitney carried away in 1814."

With a backward thought, no doubt, to the historic flood of 1795, to which she adds new knowledge.

"During the whole of the month of Jany and to the 9th of Feby we had very severe frost, with snow. The cold was so intense that often, while writing early in the Morning, the ink froze in my pen. A thaw commenced on the 9th Feby and such heavy rain fell on the 10th that, added to the melting snow, it produced a tremendous flood. The little stream in our Village was impassable for some hours. The River Arrow rose ten feet above its bed. The Wye went entirely over the parapet walls of Bredwardine Bridge which saved it from the fate of Glasbury, the Hay and Whitney bridges which were all thrown down. At Letton [where you can still see the high-water mark on the church] the flood was four feet higher than the oldest inhabitant of the place ever remembered it to have been. Mr. Freeman (of Letton) lost 16 couples of hounds, the others being saved by getting on the Roof of the Kennels. The water was 4 feet in his stables and his horses were fastened at the Kitchen door and foddered there for a day and night, the road to Hereford being impassable. [The current phrase "where do you come from? Letton! God help you" may have dated from 1795.] Dr. Chitton rowed himself in a boat from Kinnersley to Letton [Major Holden has lately provided a boat for such an emergency] over meadows, hedges, etc. A number of Rats took refuge on a Tuft of Grass under The drawing room windows at Letton. The Cellar was completely full of water. At Hereford, the scene was dreadful. Our friends, the Brewsters and Mrs. Bodenham said they distinctly heard at their houses in St. Owen's and Broad Street, the roaring of the River and the cries of the terrified people in the night of Tuesday 10th."

Eliza took part in the celebrations for the surrender of Napoleon, when everyone in Kington wore blue, white and orange cockades and the banner across the street to the Oxford Arms bore the inscription—

"The dawn of universal peace"!

In 1814 she travelled with her parents to London with their own horses—

"We slept at Ross, breakfasted at Gloucester and were in London by half past 6 that night."

She noticed the change in Newport where the "crazy timber bridge over the Romney had been rebuilt in stone". She studied the Lancaster system of education with that pious nobleman, Lord Radstock, and the Bell system, which she finally adopted for her own school, with Miss Luxmore, the Bishop's daughter. She went, as usual, to Moccas, Garnons, Croft, and the Dowager Lady Oxford's at Kinsham and to all the familiar houses. "In 1817, we walked in the grounds and inspected the new Garden house " and in that same year killed 4,000 wasps and hornets with her own hand. She went to the Stag's Head once to see "a clever sleight of hand man" and to Kington to "Miss in her Teens" and "The Poor Soldier" which she herself had bespoken from a travelling company, and to hear Ribbon, a child of four, play the violin. She had her usual Christmas party in the village when each child received 6d. and one an extra 1d. for a poetical address in her honour. When her 16-hand mare, with five colts and a mule to her credit, died, she exchanged her for Shenkin, a Welsh pony, which in the election of 1818 was covered with purple ribbons-Sir John Cotterell's colour. And then, one day in September. 1819, "while we were all at breakfast", a chaise drove up to the door and in it was Sir Isaac. They were off-almost at once-"erratic", "wandering", "not stationary", "irregular"to Aberystwyth first, across to Shrewsbury, and Chester, by steamboat to Liverpool from which place on 19th November he was away to London, to come back and take her once more to Soho and then to Lord Darlington's at Raby Castle. Coming back they drove 84 miles in 12 hours. From Birmingham Sir Isaac went to London and sent no word for 10 months till an S.O.S. came that he was ill with gout in his lodgings. In November, 1820, he was back again to be present at the election for the "immaculate" (save the word!) borough of Leominster, when the Corporation backed Sir John Lubbock and the populace Sir William Farleigh with his promise of five guineas a voter. No work was done for eight days, while Leominster ate and drank. At this election 75 persons were reputed to have died from baleful effects on their constitutions. At the beginning of 1821 there is no news of the

Knight Errant, although he was in his lodgings in Coventry Street and still afflicted by the gout. His wife was willing to see him but not willing to stay in London, and so, late in the year, he graciously came down to Titley—

"Raked up every old grievance, found fault with everything I found most sacred".

A reader who read nothing but volumes of the *Mechanical Journal* would hardly appreciate De Valmont, or "practical sermons for every day of the year". A candid critic said that his inveterate jokes (with an acid taste) were like making a meal off mustard and cayenne.

"One moment," says Eliza, "he makes me love him, at another his unfeeling letters and actions completely repel me."

He had by now become Member for Ilchester and could make his attendance at the House an excuse for his casual comings and goings. His friends and relations had deep respect and sympathy for Eliza and agreed that Titley Court was far superior to a lodging in Coventry Street. In 1822 Eliza and Isaac went again to Soho, where they dined off turtle and green peas (out of season) and the band of the Scots Greys came down to play ("these new-rich manufacturers did themselves very well"), and again to Everton and Raby, after which Sir Isaac departed without word, first to the Land's End, perhaps a significant move inspired by wishful thinking, and then to America, and Eliza went back to her normal, busy life, with a stay at Aberystwyth in 1823, where she wrote a simple but delightful account of the view from her lodging-house window—

"Fishing boats are constantly going out and coming in; small vessels sailing by; children playing; knots of fishermen talking; fine ladies walking with their parasols and fine bonnets; machines with bathers and now and then Welshwomen washing their legs in the sea."

She was always thinking of the poor folk in her village and neighbourhood, and established a Penny Club in Kington, to which she added a bonus and in the depression of 1812, when wheat was 16/- a bushel and Lady Oxford had given her £10, had wisely bought wheat and barley mixed and sold it in pecks at 8/- the bushel.

Eliza did not appreciate the new Poor Law or the new Work-houses.

"One well chosen and moderately paid person for every 4 or 5 parishes would be far better than all this lavishness and would counteract the extravagance or parsimony and inattention of Churchwardens and Overseers."

In the 30's she was ill, and in 1835 seems to have had a slight stroke, followed by what I should imagine was rheumatoid arthritis, which was not improved when the hind seat of a carriage fell off and left her and some friends in the middle of the road. She was, however, well enough to cry at the wedding of their butler Richard to Mildred the cook. Richard had proposed because he could

find no one who did his washing so well—"I am a serious old fool" was Eliza's dry comment. Many of her pleasures, however, had to be given up as she found moving very irksome. "I had to go to church in the phaeton in the evening". "I could not hay-make in Shawl meadow." She could not hold a stall at the bazaar for Ludlow church—or the plate at the Three Choirs Festival—and she missed her father, who had died in 1834, very deeply.

Eliza tried many remedies, powdered charcoal, saline from Stratford-on-Avon, hemlock and bogbean tea, a bath with marshmallow boiled in hot water, and, as a believer in a homoeopathic cure refused to submit to the bleeding, blistering, cupping, and leeching so beloved of the eighteenth century doctor. Between 1823 and 1835 only one letter came from Sir Isaac, with news of the death of his brother, a general, in New Brunswick, apart from a demand from his London solicitor for the arrears of £400 a year given to her by her father at her marriage. By this time her mind was made up as to the disposal of the Titley property, which was to pass to a cousin who had married Admiral Sir Thomas Hastings, an admiral of very different calibre from Sir Isaac, who had already a pied à terre in the village. At their death it was to go to another cousin, Charles William Allen, who took the name and eventually succeeded.

In 1835 Sir Isaac paid his last visit to Titley, although on several occasions Eliza had felt it her bounden duty to visit him and once on such a visit collapsed from sheer fatigue of mind and body. He demanded a temperature of 80°, he wanted nothing but roast lamb and nothing to drink but ginger beer and soda water, which had to be specially ordered from Worcester. Isaac would not see his nephew, who came down to Kington to pay him a visit, but was wheeled down to the Stag's Head to stand the landlord a quart of porter. He offered a sovereign for the fattest goose in the village, paid his usual compliments, and made his usual interminable speeches. In fine, he was Sir Isaac Coffin at his best and worst, with a French valet, Benoit, like a stage shepherd, in a snow white waistcoat and white trousers, in the background. Benoit's smirks made Richard's cheeks curl incessantly, and created an unpleasant diversion by leaving a loaded gun in the kitchen which, by good fortune, only wounded a fish kettle and a dripping pan.

In the last two years of Eliza's life entries in the diary, of necessity, become fewer. Her lovely writing quivers, the sand blurs the ink and six months before her death, in July, 1838, comes the last entry: "Dr. Davis and I wrote out my case and sent it to Dr. Lacock and I by his advice began to take iodide of potash 5 grains 3 times a day;" and there is the date 12th July and nothing more.

In this and many other ways the diary throws new light on life in Herefordshire during the period. But it will best be remembered as the outward expression of the character of a very charming, alive and gallant person.

I have omitted much that might interest. I have said nothing about George the Third and his family (of whom there are many interesting stories), of fashion, of highwaymen, of riots, and the events of the Napoleonic wars and the part played by the Romney Fencibles in the defence of the Pembrokeshire coast (the subject of a recent authoritative and well-written book), of customs and superstitions and many other fascinating topics. These await further study.

THE WOODLANDS OF HEREFORDSHIRE

A Summary of a paper by Sir Richard Cotterell, Bt., delivered to the Woolhope Club on 22nd February, 1951.

Herefordshire is fortunate in having a soil and climate which will grow any tree, broad leaved or conifer. The total land surface of the county are 539,000 acres, 63% of which is classified as rural. Of this 47,000 acres are woodland; 41,000 in private ownership, 6,000 acres in State ownership. Thus the woodlands represent 8.7% of the total land surface, and 14% of the rural area. This is a very high percentage compared with most other counties.

PRESENT POSITION

The recent survey by the Forestry Commission of all private woodlands of over 5 acres gives the following information:—

- 1. High Forest. 19,500 acres. The main species being oak 10,000, ash 5,000, European larch 1,300 acres.
- 2. Coppice or Coppice with Standards. 8,300 acres.
- 3. Scrub or Devastated. 12,000 acres.

This presents a gloomy picture when it is considered that it means that approximately 30% of the private woods are in urgent need of rehabilitation. In addition, it is certain that much of the wood classified as High Forest or Coppice with Standards is not stocked to full capacity.

HISTORICAL

In order to arrive at the cause of this state of affairs it is necessary to study the history of British woods, as it is the produce from the woods which should determine the system of management. This can be divided into three epochs.

- 1. Pre-Industrial Revolution.
- 2. Industrial Revolution—1914.
- 3. 1914-1951.

 $^{^{\}rm 1}\,{\rm Some}$ baths had been established at Bishopstone, about a mile from Stratford-on-Avon on the Birmingham road.

PRE-INDUSTRIAL REVOLUTION

The early uses of woods were as follows:-

The production of stakes, fencing, etc., for agricultural purposes, fuel, domestic, and charcoal burning; pannage for animals and last but not least, timber for house building and ship building. Ship building being particularly important as regard Herefordshire as it is an oak growing county. Thus the trees were grown far apart to encourage wide crowns from which the large crooks and arms for the frame work of our "wooden walls" could be best obtained. In between these trees, coppice growth was encouraged to produce the minor produce needed for other purposes. Thus Coppice with Standards or plain Coppice for charcoal burning was the order of the day.

INDUSTRIAL REVOLUTION-1914

The Industrial Revolution should have been the turning point in the technique of British forestry. It had the following effects:—

 The advent of the railways and better transportation largely caused coal to replace wood as the standard fuel all over the country.

Charcoal burning lost its importance with the advent of the blast furnace.

3. The most important factor was the replacement of steel for wood in shipbuilding. The wide crowned trees were no longer needed. Furthermore, at this time Great Britain was the workshop of the world and her goods were exported in her new steel ships, and vast quantities of good foreign softwood timber were brought back by them as ballast—a form of timber which was urgently required for building the new houses which were springing up in support of the mines and factories.

This should have changed the technique from coppice with standards to high forest in order to produce long boled straight timber for sawmilling. This did not happen, however, for the following causes:—

 As usual, it was not appreciated that there was any reason why unlimited quantities of foreign timber should not always be imported.

 Most of the woodland owners were sharing in some degree in the prosperity of the country, and coupled with the invention of the breech loading shotgun, the woods became a playground for sporting purposes. More often than not the gamekeeper rather than the forester ruled in the woods.

 A further blow as regards a hop growing county like Herefordshire, was the introduction of wirework on which to grow hops. This made redundant many acres of coppice devoted to the use of growing hop poles. 4. Few people bothered about forestry. Fortunately quite a lot of neglected coppice has grown into tolerable high forest through neglect. This was the situation in 1914.

1914-1951

Very heavy felling took place in the 1914–18 war with the advantage of a vast saving in vital shipping space. The woods emerged in a terrible state. The importance of building up our national reserves of standing timber was still not fully appreciated. It is true that the Forestry Commission came into being for the purpose of planting land to build up the country's stocks of coniferous timber, but it had no set target to aim at. Private forestry was still not regarded seriously although planting grants were made available to private owners. There was little inducement for private owners to invest money in reafforestation with national apathy to the subject, crushing taxation, and uneconomic timber prices.

In 1939 this country imported 96% of its annual requirements of timber at a cost of over £60 million (90% of this timber was coniferous). Not a very sound position in which to be placed at the start of a second world war. In 1939-45 the action of the previous war was repeated. The woods were again massacred—without the depredations of the previous war ever having been put right. By the end of the war in 1945 the seriousness of the country's timber position was appreciated and for the first time in history it was decided to tackle the forestry problem, by the Forestry Act, 1945.

Briefly the plan was as follows:—That in the course of the next fifty years two million acres of the country's total of three million should be brought into full production, and, in addition, a further three million acres should be afforested by the State. Even when this programme had been achieved it would produce only one third of the estimated annual timber requirements of the country, but that would permit overcutting for a limited number of years in a national emergency. It was hoped that private owners would be responsible for the rehabilitation of the major portion of the two million acres; if they were unable to do so, then it would be the responsibility of the State.

Private owners have been asked, therefore, if they are willing to undertake the task. And the basic position has been put to them that there is such a small acreage of woodland sites in the country that somebody must grow trees on them; if the individual is not prepared to do so with financial assistance by the State, then the State must acquire the land and grow the trees. There are three courses open to the owner of woodland capable of being managed on an economic basis.

DEDICATION

1. The owner is invited to enter into an agreement with the State that he will manage his woodlands for all time for the

prime purpose of growing timber. In which case he must work according to a plan agreed with the Forestry Commission. In return he will obtain financial assistance by way of planting grants, etc. from the State.

2. If he is unwilling to dedicate he can manage his woods to the satisfaction of the Forestry Commission, but will receive no

financial assistance to do so.

 If he refuses to do either of these things and continues to allow his woodland to remain derelict, then as somebody has to grow trees, the State will acquire it; compulsorily if necessary.

CONCLUSION

That is the position today. The dedication scheme after long teething troubles is getting under way, and is meeting with a good response. There is a great revival of private forestry throughout the country, and especially in Herefordshire where the majority of woodland owners are taking their forestry problems seriously.

The Royal Forestry Society of England and Wales has a county branch, and it is no unusual thing to find from thirty to forty woodland owners on the frequent outings held at various private estates to study technical problems. This promises well for the future and there is every hope that slowly, but surely, the woodlands of Herefordshire will be brought back to their original productivity and will become one of the great glories of our beautiful county.

SELF-GOVERNMENT IN SUTTON IN THE SEVENTEENTH CENTURY

By Prebendary S. H. Martin

(Read 13th March, 1951.)

St. Michael's Wardens, 1663-1811

Sutton St. Michael is a parish with a very small population of about 100 people. It is a little church and the income of the living has always been so small that the parson was generally obliged to take some other cure. Under these circumstances one would not be surprised to learn that parish life was at a low ebb during the period, 1663–1811. The records of the churchwardens, however, which we are fortunate in possessing, prove that this was by no means so. For, first of all, there was a regular succession of wardens: there are no gaps in the list. They were elected annually at the vestry, and usually held office for not longer than two years, one warden retiring at a time, though some carried

on for a longer period. Secondly, they did their duty, which was to see that the services were properly carried on, the church building kept in repair, and current expenses paid. With the consent of the vestry they levied a rate or "lewn" on all householders of the parish for their annual needs, and gave an account of their expenditure at the end of the year. Often no parson was present at the vestry; indeed during the years 1720–6 no parson was present at any parish meeting. Their other duty was to appear at the annual visitation of the archdeacon at Hereford, and to submit to him "the transcript", a parchment copy of the parish register, for their period of office. The detailed statements of their "disbursements" are not without interest.

They paid rather heavy "court fees" for being sworn in, and they also charged their expenses for going to Hereford, and for buying the sacramental wine and "fetching it". The celebrations of Communion were few, at Christmas and New Year, Easter and Low Sunday, and sometimes on Whitsunday, and for each of these occasions the surplice and altar linen were washed and the vessels

carefully cleaned.

Occasionally the surplice was mended and in 1742 "the Church Cup" was repaired by Mr. May for $1/1\frac{1}{2}$. The "clerk's" yearly salary in 1726 was ten shillings; this, however, was not all he had, for he also was employed at St. Nicholas church, and claimed fees for weddings and funerals. His pay rose to a guinea in 1780, to two guineas in 1813, and to £3 4s. 6d. in 1822. All church expenses went up correspondingly from £1 16s. 4d. in 1726, to £4. 5s. 9d. in 1781. Extraordinary expenses were met by extra rates, levied with the approval of a special meeting of the parishioners.

From 1770-1780 the roof was thoroughly overhauled. The cost of 15 poles for new rafters was £1 8s. 0d., of 500 stone tiles 13/6 (not including carriage), of 1,000 laths 11/-. Ezekiel Thomas had 15/- for ten days' work "putting in rafters". Two "sils" for the porch were 13/-, a new gate 11/6, two bell-ropes 11/-, and the repair of the weather-cock 10/6. In 1790, with these extra expenses, the wardens' payments ran up to £79, which caused them concern, for in that year they paid one shilling " for a letter to ask charity". As in other parishes there were frequent payments of 4d. each for hedgehogs or "urchins" that were brought in. It looks as if the wardens took trouble to see that their money was well spent. We naturally ask, "Were there no voluntary collections in those days?". There were, but they were limited to the Communion offerings for the poor and to such response as the people were willing to give to the "briefs" read to them in church. These were appeals for help from other parishes where, owing to fire, storm, or other causes, great loss had been incurred. Between 1696 and 1711 250 of these were read in the church, coming from all over the British Isles. There were special appeals for the ransom of seamen and others captured by the Turks, and for the persecuted Protestant Churches on the Continent, as well as calls for help from nearer home, e.g.:--

Wm. Perry, Hope under Dinmore 1/— James Green, Little Marcle, 1/— A cooper in the parish of Woolhope 1/3 Mrs. Hathway of Marden 1/7 W. Seymour, Woolhope 1/— Trillow, a blacksmith of Ocle Pychard 2/2 John Cresswell, Marden 1/8

and on March 25th, 1716, "the Cowkeepers' brief", for Ralph Harewood, Christopher Capper, George Doggett, John Langley and others 3/-. This may not have been a local appeal.¹

These collections had to be accounted for at the Archdeacon's Visitation. The sacrament collections which were small (in 1765 they came to $9/8\frac{1}{2}$), were distributed by the incumbent in the form of bread. In addition the wardens distributed the Lingen and other charities and gave help to "strangers, passengers, or wayfarers" who visited the parish.

THE RELIEF OF THE POOR IN SUTTON ST. NICHOLAS AND ST. MICHAEL

It was the custom to elect at a vestry, generally held in St. Nicholas church, four overseers to care for the poor, two for each parish, who were authorised to levy a poor rate and to administer it, presenting their accounts at the end of the year. We have their names and their statements for 79 years, but, unfortunately, no detailed accounts appear till 1815. From 1744-1770 the average expenditure was in the neighbourhood of £30; from 1770 to 1790 about £40; from 1790 to 1800 only three years are accounted for, in 1790 £46 5s. 0d., in 1793 £68 10s. 0d., in 1799 £185. In 1800 it rose very sharply to £308, and it continued well over £200 till 1823 (there being no records for 1804, 1805 and 1807). As the work was now much heavier, a deputy overseer was appointed at a salary of from eight to ten guineas. One of them was Thomas Parry, of Withington. The sudden leap in 1800 is explained by the price of corn which had risen from 61/8 a quarter in 1797 to 134/5 in June 1800, and to 156/2 in March 1801 (See Halévy, History of the English People, vol. 2, p. 68, Pelican edition).

There is nothing in the accounts to show any hardness or unkindness in the overseers. Thomas Aldridge and Thomas Bailey, who gave the relief in 1800, were not rich men, but were very well known in the parish, acquainted with the people who came to them for help, and they knew the many ways in which assistance might be given. They apprenticed boys to a trade, fitted out girls who went into service, gave money to those who were

out of work, paid sick and burial expenses, and even bought clothes:

Making Barrett's smock frock	1/6
Julios IIougos irusorous	1/6
"Taping" (soleing and heeling) Catherine Oliver's shoes	2/-
Making a "pin-before"	1/-

Gifts of coal were sent during the winter and many rents were paid. This help was given where it was needed, and not only to those who regularly received "weekly pay", though some of these were given work and were paid for it. Three houses were also at the disposal of the overseers, who let them to John Powel, John Trillow and Benjamin Norman at the rent of 1/- a year. They paid for repairs, e.g., they thatched John Trillow's cottage at the cost of £2 7s. 0d., and provided John Clayton with the following household necessaries:

a tub	3/	hand-irons	1/2
fire-irons	1/6	two sheets	2/-
hooks	/7	bed-quilt	2/-
a pot	1/8	blanket	4/3
earthenware	1/4	a bed (52 lbs. at 1/) £2	12 0

The "bed" is possibly the stuffing of a mattress sold at so

much a pound.

The overseers also encouraged the weaving of linen at home. First of all, they bought a coarse flax which was called "hurds" at eight or nine shillings a stone. This flax may have been grown and "retted" in the parish. A gate near the school which was called "Linings Gate" may be evidence of this, as "linum" is the Latin for flax. Farming manuals published in the late eighteenth century included instructions for "retting" flax as well as for growing and harvesting the crop. The other processes were certainly carried out in the parish. The accounts for 1827 show that sixteen shillings were paid for the spinning of two stones, four shillings for "whiteing and winding" and seven shillings and eightpence for "weaving and starch". In 1821 Ann Tudor, Charlotte Smith and Mrs. Lane were paid for spinning "hurds" and in 1820 Ann Tudor received five shillings for "whiteing" yarn. In 1819 ten yards of "hurden cloth" were bought from Enoch Powell in Sutton for eight shillings and fourpence (10d. a yard). This was coarse and of poor quality. I am told that fifty or sixty years ago in Birmingham coarse aprons, suitable for rough work in the house, were called "hurden aprons".1 A parishioner has told me that he remembers the hurden blankets. There does not seem to be much record of linen manufacture in England during the eighteenth century (see The Linen Trade of Europe, by John Horner, 1920, pp. 222 foll.). There was some in Hereford, as Earl Coningsby

¹ This brief was dated 18th April, 1715, and was for the sufferers from cattle disease in the London area. Eleven shillings was collected for them at Stoke Edith. (Ep.)

 $^{^{\}mbox{\scriptsize 1}}$ The Editor well remembers this term in use in the Stratford-upon-Avon district.

(c. 1700) formed a society for its encouragement. Possibly similar records may be found in other parishes.

When the accounts became large they were sometimes countersigned by the Hereford justices. It was all to the good that help was given by the parish to the parish in the parish. Some relief certainly came from outside: e.g. we hear almost nothing of the parish doctor; and from 1812 onwards the overseers paid large sums as County rates, no less than £63 18s. in 1812, and £52 10s. in 1819.

The saddest feature was the stigma incurred by those who received help. Traces of this appear once and once only in the church registers when a curate, who should have known better, added the letter P [=pauper] to certain entries of baptism and funerals.

THE ROADS OF SUTTON

Another important parish official was the road surveyor who differed from his modern counterpart in that his duties were strictly confined to Sutton. He was generally appointed by the magistrates from a list of "selected persons", but in the Sutton books he is said to have been appointed by the vestry on more than one occasion. We have a list of surveyors for 50 years, but their accounts only begin in 1799 and their "disbursements" only cover 12 years, 1816-1828. Payments, averaging £40 annually, were for carting gravel from the quarries at Frankland and for labour in cleaning and repairing roads and gutters. The work was done cheaply enough, to judge from modern standards. John Meyrick received 6d. for "spreading" three loads of stone and 10/- for "fraping" six score perches at 1d. per perch. "Fraping" is not the same as "knapping", which means "cracking", but perhaps may mean cutting the hedges or tidying the roadside. Richard Ruff was paid 6d. a ton for carting 28 tons, and John Trillo received 1/8 for two days' labouring work. These rates of pay must have brought men very near to the starvation line. John Trillo, for example, had regular work as a road-man from 1816 to 1820. If his wage, perhaps from illness or on account of bad weather, fell below 5/-, the deficiency was made up out of the poor rate. When, however, he ceased work he received regular weekly pay of 5/-, together with occasional gifts of coal and extra help for his son and daughter, and his rent (see above) was very nominal. It looks as if he was better off when he ceased to work for the surveyor. This collaboration of the surveyor and the overseer is open to criticism. Mr. Tate (The Parish Chest, 1946, p. 247) writes, "The heaviest burdens which the parish officials had to bear was caused by the condition of the roads and a superabundance of unemployed and largely unemployable poor. It was natural that amateur administrators would endeavour to make the two problems solve one another."

The officials of Sutton were indeed amateurs, and could hardly have been expected to be anything else, but, so far as the poor were concerned, they seem to have done their duty to the best of their ability. Their work on the roads, however, left much to be desired.

WERGINS BRIDGE

It is well known that roads in Herefordshire in the 18th century were pretty bad, and the story of Wergins bridge proves that Sutton roads were no better than the rest. It begins in 1749 when at a public meeting in St. Nicholas church, attended by the Rector and twelve others, a resolution was passed:

"Whereas a certain bridge called and known by the name of 'the Wergins' situate within our said parishes of Sutton St. Nicholas and Sutton St. Michael is now out of repair and impassable, and ought to be repaired by us, the inhabitants of the two parishes, it is thought expedient by us to repair and rebuild the same at the public expense of the said parishes, we therefore, whose names are hereunto set and subscribed, do hereby agree that the same should be done with the utmost expedition and we do order direct and agree that William Lingen, William Russell, Thomas Pitt, Joseph Bailey and William Spencer shall contract and agree with any workman to undertake for doing the same at the most reasonable cost and price they can."

"And we also agree that a lewn or tax shall be made raised and levied upon all and every the inhabitants of the said parishes by a pound rate towards defraying the expenses thereof, and that John Dyer¹ be employed in collecting the said tax and shall be reasonably paid for the same."

A similar meeting, held probably soon after this one, and attended by Mr. Rawlings, the rector and nine others (the same men who were there before) accepted an estimate from Thomas Chinn, and asked Mr. William Lingen to "make an agreement and article with the said Thomas Chinn, and that John Dyer shall be empowered to gather the money and for his trouble shall have ten shillings paid him."

But nothing happened.

Thirty-five years afterwards, on 19th April, 1784, another meeting was held in the church under the chairmanship of the Rector, the Rev. Edmund Barry, and it was resolved to apply for an order from the justices of the peace to repair the bridge. The records of the Hereford County sessions show that this order was made.

"The general quarter session of the peace of our sovereign lord the king was held in the Shire Hall of the county of Hereford on the first week next after the feast of St. Thomas the Martyr, to wit the 13th of July 1784, before Digby Coates, John Scudamore, Henry Unett, James King and others . . . The inhabitants of Sutton St. Michael, and St. Nicholas agreed to submit to our jurisdiction of the last session for not repairing Wergins Bridge and are fined £150 ordered to be levied by a fieri facias and paid to Mr. Edmund Barry, to be laid out in the repairs of the bridge or in building a new one." **

¹ This word is not in Wright's *Dialect Dictionary* in this sense, or any other that would be suitable here. (ED.)

¹ John Dyer was the parish clerk.

² The fine was met by an extraordinary rate—which was quite legal (see Tate, The Parish Chest, p. 244) and in this case was collected by the Chief Constables Syrrel and Gardiner. (See also Tate, p. 478). There were in addition two small lewns (9d. and 6d.) collected by the Sutton surveyors, Lawrence and Pitt.

In February of the following year the Rector and five others, including Thomas Lawrence, the parish surveyor of roads, sent an advertisement to the Hereford paper. This duly appeared in *The British Chronicle*, or *Pugh's Hereford Journal*, printed by Mr. G. Pugh in the High Town, Hereford, on Thursday, February 24th.

"Whereas it is proposed to erect a wooden or stone bridge over the river Lugg near the place where the old bridge formerly stood belonging to the several parishes of Sutton St. Nicholas and Sutton St. Michael, any person willing to contract may apply to the Rev. Mr. Barry at the Parsonage House, Sutton St. Nicholas, or to Mr. William Pitt in the same parish and deliver in their estimates on or before the 17th day of March and attend at the church of Sutton St. Nicholas on the 24th of the same month."

A meeting was held on 24th March, but no mention is made of any tender. On 6th June, however, it was agreed to empower Mr. William Pitt to superintend the work, and to pay him twelve guineas. This agreement, however, after being duly signed and sealed, was "made void" on 14th March of the following year, when an offer from Mr. John Gethen of Kingsland to rebuild the bridge for £185 was accepted. It was also agreed that Mr. Barry and five others should pay Mr. Gethen, provide stone, lime, and gravel, and make good the road at each end of the bridge. The bridge was completed during the following year. Here are the Accounts:—

Part of a ninepenny lewn by L	4 5 03	
First fine by Syrrel	145 0 62	
Second fine by Gardiner		99 15 0
Also subscriptions		
Lord Malden ¹	10 10	
Lord James Beauclerk	2 2	
Sir George Cornewall	5 5	
Hon, Thomas Harley	5 5	
	5 5	
Doctor Allen	5 5	
Thomas Gibbons, Esq.	5 5	
W. Shepheard, Esq.	5 5	
Edmund Barry, Clerk	5 5	
Thomas Birt, Clerk	5 5	
H. Taswell, Clerk	1 1	
J. Seaborne, Esq.	1 1	
F. Campbell, Esq.	10 6	
Henry Unett, Esq. Doctor Allen Thomas Gibbons, Esq. W. Shepheard, Esq. Edmund Barry, Clerk Thomas Birt, Clerk H. Taswell, Clerk J. Seaborne, Esq.	5 5 5 5 5 5 5 5 5 1 1 1	

From the Highway lewn paid by Mr. Pitt, Surveyor

Thomas Griffiths, Clerk

Benjamin Fallowes

Duke of Norfolk

Martha Cole

RECEIPTS

¹ Some of the subscribers owned property in Sutton and Marden, e.g.
the Duke of Norfolk, Sir George Cornewall, Henry Unett, Thomas Gibbons,
W. Shepheard, Thomas Birt, J. Seaborne, and Dr. Allen.

2 2

10 10

10 6

321 13 84

EXPENDITURE

Mr. Pitt for raising stone in 1785 Mr. Pitt for several men, 25 weeks 1786		13 6	
, sundry expenses			104
Mr. Gethin's contract sum Oct. 1786	135		104
bill for men's work etc.	7		11
Mr. J. Price for halling lime	12	5	
Mr. Pugh for advertising 6 times	1	10	
Mr. Price for several agreements and stamps	1	1	
Mr. Fallowes, (Clarke of the Peace)	7	10	
Mr. Syrrell (Chief Constable)	5	5	
Mrs. Cole for lime	11	14	
Mr. Burton for the stone and damages	5		
Mr. Burnet for halling stone and lime	7	7	
Mr. Preece for halling 19 loads ditto		17	
Ditto 46 loads	- 8	1	
Norman and Laurance	2		
Dee's bill (blacksmith)	1	9	
Mr. Pitt for superintending the raising of the stone up-	_	-	
wards of 25 weeks	5	5	0
Howell's Damages Preece halling stone	1	1	6
Gibbons Court Fees	_	10	
Uncollected by Lawrence	1	6	
Several stamps etc.		5	8
Causeway Wergins		16	0
Post, railes and work on the bridge	1	7	6
Halling gravel	•	10	
Thomas Bailey		2	~
Howles & advertis: (sic)		- 8	2
Mr. Fallowes' demand, second time	5	6	0
Mr. Gardiner ditto (Chief Constable)	3	6	4
Stamps 1/10, Affidavit sessions 1/6		3	4
Sawyer, the Cryer of the Court			6
Mr. Downes for Howls and Costs ¹		11	
Gethin's Principal and Interest	55		
Advertisement of thanks to the subscribers		5	6
	321	13	81

It is not much to the credit of the parish that it took 38 years to build this important bridge on the high road between Hereford and Leominster, and it is strange that the County authorities were so slow to move in the matter. The rector evidently took the lead in the effort, not only by appealing for money and by keeping the accounts, but also by personally supervising the work.

If the bridge then made was the one which was replaced in 1912 it may be described as a high narrow bridge, somewhat like the one over the Lugg at Moreton station, but without the V shaped recesses. It was so narrow that a traction engine passing over scraped both sides. The present bridge was made by the County Surveyor, Mr. G. H. Jack, F.S.A., the work being hindered by twenty floods.

¹ Dee was the village blacksmith.

PAPER-MILLS IN HEREFORDSHIRE

Contributed by Alfred H. Shorter, M.A., F.S.A., F.R.G.S.

All the paper-mills which formerly worked in Herefordshire seem to have been established during the period of the expansion of the paper-making industry in England in the eighteenth century. As with Shropshire, Monmouthshire and Cornwall among others, the county has lost this industry, the distribution of which has shrunk in many parts of England since the 1830's. All the mills were quite small and were probably forced to close by the competition of bigger and better-placed mills where paper-making machines were installed, or by economic and geographical factors of a general nature, including taxation, the concentration of the industry into fewer and bigger units, and changes in types of transport and raw materials.

Up to 1816, information concerning paper-mills and papermakers in this country has to be culled from many scattered local and "national" sources. In 1816, the Excise authorities, who had managed the duty on paper since 1712, issued what is apparently the first of a series of General Letters and Orders containing the names and numbers of paper-mills at work and the names of the paper-makers in possession. I am indebted to the Commissioners of Customs and Excise for permission to search and to quote from these records in their library.

Many of the old paper-mills were scattered through the countryside and were situated not on the major rivers but on tributary streams where there was enough water to drive the mills and a supply of clean water for the manufacture of paper from rags by the hand or vat process. Herefordshire had only a few mills, but none of them was on the Wve.

Further information about any of the paper-mills will be particularly welcome.

1. GROVE MILL NEAR PRESTEIGNE

The only early information referring to this mill has been kindly provided by Mr. W. H. Howse, who searched the deeds of Grove House by permission of Mr. E. Davies. An indenture of 29th March, 1776, refers to some land attached to the house as Paper Mill Close, which was conveyed from the possession of Stansil Griffiths to Thomas Legge. An earlier indenture of 30th November, 1750, names four fields attached to the house, but none of them bore this name, so perhaps the paper-mill was established between 1750 and 1776. The next possible reference to this papermill occurs in an Excise Letter of 1822, when a "new" mill, No. 504, Grove, in the Salop Collection of Excise, was opened in the name

of Benjamin Rowley. Mr. Howse tells me that a notice of sale in the Hereford Journal of 30th December, 1846, stated that Mr. Beebee of Willey Court was selling (among other property which was specified) "Grove House, Stapleton, near Lugg Bridge, Presteigne, with outbuildings and a paper-mill ". No later reference has been found.

2. HAY MILLS

This paper-mill was situated on the river Teme, about 41 miles west by south of Ludlow Castle. In 17401 it was advertised to be let and entered upon immediately. It was described as "a Paper Mill newly fitted up in the best manner" with engine, hammers, etc., and was situated "upon a clear and fair-coloured water more than sufficient in the driest seasons and not flooding in the wettest ". There was said to be constant carriage to Bewdley by pack horses almost every day in the week, within a mile of the mill.

Three more advertisements of this paper-mill in the same newspaper2 have been found. The first two state that it was to be let, and was a paper-mill with an engine for making white paper. The third also states that it was to let and in complete repair. My last reference, in 1771³, is a newspaper notice referring to James Oliver, who had been apprenticed at the age of six to Mr. Thomas White, Master Paper-maker at Hay Mills and had served him upwards of seven years.

3. BILL MILLS

In 1731.4 William Morris was apprenticed to Thomas Parker of Weston, Hereford, paper-maker. Mr. W. N. Wintle, the present owner of Bill Mills, kindly tells me that the deeds mention the papermill in 1736, when the occupier was a Mr. Bond, and in 1775, when the name of Thomas Parker appears. The latter is mentioned as the lessee in two advertisements in 1774,5 when the papermill "in exceeding good repair, and constantly supplied with water", was for sale. The paper-mill is shown on Taylor's Map of Herefordshire, 1786. It is listed in the first Excise Letter of 18168 as Paper-mill No. 146, Bill Mill, in the Hereford Collection of Excise, worked by Joseph Lloyd, paper-maker. My last reference to it is in 1821.7

¹ The Gloucester Journal, 15th April, 1740.

² ibid., 26th July, 1748; 16th December, 1760; and 1st November, 1762.

⁸ The British Chronicle or Pugh's Hereford Journal, 28th May, 1771. ⁴ The Apprentices of Great Britain, 1710-1762 (typescript); extracted from the Inland Revenue Books at the Public Record Office for the Society of Genealogists, 1921-28. Book 49, Fol. 251.

The Gloucester Journal, 14th March, 1774, and The British Chronicle or Pugh's Hereford Journal, 7th April, 1774.

Letter dated 8th October, 1816, in General Letter Book No. 4 of the Ellesmere Division, Chester Collection.

⁷ W. Cobbett, Rural Rides, I, 1821, p. 37.

4. Treseck

This paper-mill was advertised for sale in 1776,¹ when it was said to be in excellent repair. A similar advertisement ten years later² stated that it was then in the possession of Thomas White. Several entries in the Excise Letters refer to Paper-mill No. 147, Tresick, in the Hereford Collection of Excise, with paper-makers as follows: 1816, Edward Williams; 1819, James Preece and Thomas Cary; 1825, Joseph Robinson; 1827, Richard Thornbury; 1832, John Johnson; 1838, Edward Johnson (?). The paper-mill is marked on Bryant's Map of Herefordshire, 1835, but it must have ceased work shortly after 1838.

5. MORTIMER'S CROSS

I am indebted to Mr. Rhys Jenkins for drawing my attention to Dr. R. Pococke's reference³ to this paper-mill, situated "in a large plain". It also is shown on Bryant's Map of Herefordshire, 1835, but the Excise Letters show that it had ceased work by then. It appears in the first Excise Letter as Paper-mill No. 148, in the Hereford Collection of Excise, worked by Henry Pearson Cooke, but the mill bearing this number was discontinued in 1824. Mean-while in 1823, Paper-mill No. 536, Mortimer's Cross, is recorded in the occupation of John Wade, paper-maker, to whose name that of George Wood was added in 1824; this mill also was discontinued in that year. In an Excise Letter of 1832, Mill No. 148 is blank but No. 536 is listed in the possession of Henry Pearson Cooke.

6. CUSOP

My only information about this paper-mill is that it is marked on Bryant's Map of Herefordshire, 1835. The Rev. George Griffiths, Rector of Cusop, kindly informs me that there is a local tradition that many years ago three mills, flour, cider and paper, existed in Cusop Dingle, but he can find no confirmatory evidence. So far it has not been possible to identify this with any paper-mill named in the Excise Letters, and it is therefore rather likely that it worked before 1816, possibly even in the eighteenth century.

7. Furnace, St. Weonards

I have found only two references to paper-makers here. In 1808⁴ Benjamin Street, paper-maker, of St. Weonards, took an apprentice named John Rogers. Street's name appears in the Excise Letter of 1816 in connection with Mill No. 126, called Furnace, in the Hereford Collection of Excise. This mill appears to have been at a place still bearing that name in the parish of St. Weonards.

DOCUMENT RELATING TO FOWNHOPE DATED 10TH JUNE, 1448

In September Mrs. G. A. Burghall Herring kindly presented to the Woolhope Club an interesting document relating to the parish of Fownhope. She also sent a translation of it and a notice of the Falwell family. These notes are well worth printing in full. The seal is in fair condition, part of one upper side is wanting.

RE FALWELLS

It is presumed that this family of Falwells were probably supporters of Richard of Bordeaux and dispossessed by Henry IV in 1399 after Richard's death at Pontefract. Then came the wars of France, the death of Henry in 1413 and the accession of his son Henry V, who had the body of Richard brought to Westminster and buried there by the side of his wife Anne of Bohemia. His son, aged nine months, succeeded him in 1422, and so soon as he came of age set about making amends to all and sundry. He endowed and opened both Eton and King's College, Cambridge, and many of the dispossessed family were returned to their sequestered homes.

The seal is that of Henry V as used for the first 30 years of Henry VI's reign.

Translation of Letters Patent (attached to the Seal in question) dated 10th June, 26 Henry VI, 1448.

Henry, by the grace of God, King of England and France and Lord of Ireland, to all whom these present letters shall come, greeting. Know ve that whereas, by a certain supplication presented to us by Johanna late the wife of Robert Falwell which Robert lately died in our Royal College of St. Mary of Eton and is there buried, we have learned by what right the same Robert in his life and the same Johanna, as in right of the same Johanna as Kinswoman and heir of John Burghall, namely daughter of Agnes, daughter of the same John, were seised of a messuage, two carucates of land and 25 acres of meadow in the parish of Fawenshope in the County of Hereford until recently a certain John Carney Esq., then our escheator in the same county by colour of a certain inquisition taken before him as our escheator in the same county seised the messuage land and meadow into our hands and thence expelled the aforesaid Johanna to her manifest destruction unless by us ourselves there is a remedy provided in this behalf. We have granted the premise therefor that the aforesaid John Burghall was seised of the aforesaid lands and tenements in his demesne as of fee and died, after whose death the lands and tenements aforesaid descended to the aforesaid Johanna as Kinswoman and heir of the

¹ The Gloucester Journal, 22nd January, 1776 and The London Evening Post, 27th January, 1776.

² The British Chronicle or Pugh's Hereford Journal, 29th June, 1786. ³ The Travels through England of Dr. R. Poccocke, (1756), ii, p. 222. ⁴ Records of the Office of Inland Revenue, Apprenticeship Books (in the Public Record Office), Book 72, Fol. 121.

aforesaid John and of such estate was seised until she by colour of the inquisition aforesaid was expelled from it, which we considering of our special grace, have given licence to the same Johanna to enter into the messuage land and meadow aforesaid and she can have, occupy and enjoy it to her and her heirs for ever, any inquisition, act, matter, statute or ordinance made to the contrary notwithstanding or that express mention of the title of the aforesaid Johanna in the messuage land and meadow aforesaid or of the value of it or of our title and interest specified in the aforesaid inquisition is not made in these presents in witness whereof we have caused these our letters to be made patent. Witness myself at Westminster the tenth day of June in the year of our reign the twenty sixth.

By writ of privy seal and the date aforesaid by the authority of Parliament.

FIELD NAMES IN MUNDERFIELD, IN THE PARISH OF AVENBURY, IN THE COUNTY OF HEREFORD

Sent by Mr. R. B. BROTHERTON, of Bromsgrove.

From a Conveyance dated 23rd September, 1856, from James Wilkinson Sanders to his son, Benjamin Lawrence Sanders (both of Bromsgrove in the County of Worcester). The Estate stated to be "formerly in the possession of Mr. William Cooke and afterwards in the occupation of Mr. Robert Dent and now of Mr. – Dent and his under tenants..."

			Acres	
Stable Orchard		2.	0.	0.
Milch Meadow	Meadow	10	0	0
Sweet Greens	do.	19.	0.	0.
The Barn Close	do.	4.		
The Young Hopyard	1	8.		
Great Orchard		7.		
Grays Field	Arable	7.		
St. Marys Close		12.		
Coneys Close		4.		
The Over Orchard		3.		
Sterkeys	Meadow	13.		
Barley Croft	Pasture	10.		
Upper Cow Leasow	do.	13.		
Further Pershill	do.	8.		
Ox Leasow Croft	Arable	6.		

Seven Acres	Arable	7.		
Lower Witherley	do.	4.		
Witherley	Pasture	5.		
Upper Witherley		4.		
Witherley Field	Arable	12.		
Busby Fields	Arable (Two Fields)	3	and	2.
Four Acres	Arable. (Near a dwelling			
	House called Morgans)	4.		
Hither Inclosure or Woodbatch Field	Arable	12.		
Lower Woodbatch				
Field	do.	20.		
Lanes Croft	do.	7.		
Hay Croft	Pasture	12.		
The Bank	Pt. Pasture Pt. Hopground	110.		
Sterkeys Woodbatch				
Great Hopyard	Hopground	8.		
Further Woodbatch	Pasture	18.		
Ash Leasow Hop Yar	d	4.		
Little Orchard		3.		
Copton Field	Arable	9.		
Stocks Croft	Pt. Pasture. Pt. Arable	6.		
Vine Yard	Message and Garden in			
	the occupation of John			
	Brown			
Also all those severa	I pieces of Arable Land in			
	called Castle Field	24.		
Also all those two se	veral pieces of Arable Lane			
	of the said Castle Field		and	6.
Pease Croft		6.		
	and enclosed out of Crays			
Field and now p		2.		
1				

METHOD OF MARKING SHEEP IN THE BLACK MOUNTAIN AREA

By Police Sergeant Donald Grigg

It may be of interest to explain how I came to be interested in sheep ear marks.

In December, 1944, information was received respecting sheep at Craswall, a parish situate at the foot of the Black Mountains in this county. The farm was visited and from observation I was fairly sure that the sheep were infected with scab. This

L R MARK

E JN

PWL

TREDICUS

MAESYFFYN

L R MARK

PENRHEWY

NEWCOURT

L R MARK

WERN

(0 00)

ABBEY

L R MARK

CT7 DT

COEDWACGAN

PENCWM

was confirmed by Dr. A. J. Wilsdon, the Ministry of Agriculture's Veterinary Surgeon.

The real fun began when we were informed that the infected sheep had been running free on the Black Mountains and a rough estimate shewed that there was the possibility of some 40,000 sheep being involved. Arrangements were made for examination and dipping of this vast number, and the following extract from the "Hereford Times" for 3rd February, 1945, will show what happened

Dr. A. J. Wilsdon told the story of the gruelling experiences of farmers, police, and Ministry officials who had to collect sheep from the Black Mountains for dipping during the recent January blizzard, to members of Herefordshire Agricultural Committee. Following two outbreaks of sheep scab, the Ministry issued an order that all affected and contact sheep (sheep on unenclosed land) should be double dipped. People with any knowledge of the Black Mountains in winter will know that even in normal conditions such a task is far from being easy; with the forbidding range under arctic conditions, the difficulties are almost insuperable.

For some days this band of men battled against the elements. Scouting patrols were formed to search for stray sheep on the mountain side, and when on 20th January gales and intense cold made further progress impossible two-thirds of the sheep had been examined and dipped for the first time.

Having been asked to act as a liaison Officer to Dr. Wilsdon, I had to visit many farms in the area. It was found that each farm had a set pattern cut in the ears of the sheep to denote the owners. I became interested and, like a good Police Officer, asked a lot of questions with a notebook handy. It was found there was a set number of signs, and all the patterns were made up from them as follows. The ear of the sheep was divided in two, i.e. an imaginary line drawn from the tip to the head and marks made above the line were called "OVER", those made below the line were called "UNDER".

The ear marks go with the farm and usually were taken over by the incoming tenant. In addition all sheep carried RADDLE and PITCH marks. The PITCH marks were usually the farmer's initials and were put on after shearing. The RADDLE marks were put on in the autumn as pitch will not stop on wool for very long.

RADDLE marks are: a "Rainbow", a semi-circular mark along the ribs, either on one or both sides of the sheep; "Dot," these are placed on one or both pin bones; "Strokes," these are straight strokes with the brush either across the shoulders, middle of the back, or the rump.

Attached is a list of practically all the ear marks of the farms in the Black Mountain area, and anyone interested can see some good designs. I venture to say that the so-called Wild West cattle brands have nothing to tell Black Mountain farmers, and it is a real experience to see how an owner can pick out his sheep from another flock. It must be seen to be believed.

	Mary Mary Mary		
EARS NOT TOUCHED		TWO CUT NOTCH UNDER.	SLOPE.
	UT NOTCH OR PUNCH IN OVER &		SLIT.
L R PITCH MARK	L R MARK R JR CWERNWALE	L R MARK TD FWDDWG	L R MARK L R MARK X CWMFFRWD
TRELACKDU	TWYN EU	NEAUDOLLWYD	BLACKHILL AW
JC NEAUDD	DARREN 8	CWMCADARN	QUTTER W
TG OAKS	BRASSKNOLL	ELANULEAU	JC SYCHTREE
PARK * PC	R NEW HOUSE	WJ RHOULHOUSE	WAINRHYD TL
O O X P	BLEAN LW	SLANDWR R	Σ Δ PENHENALT
PENTWYN	CWMBUCKILL P	RHYDFAWR	PENTREVEITHAL
CRICKHOWELL	TROEDRHIMAWR	TYNFFRWD	E P BARN

L R MARK	L R MARK TYGROES	L R MARX S B PLAS CELYN	L R MARK T L LLANGWATHIN
MAESYBERRAN	BETTWS LP	SLAINA W	CAELWNOW A G
NANTY IW	TREWISCOED	CWM	BRYNCLESSY
TURNANT HS	SLATE HOUSE	CWMBANOW OF	HILL FARM
OLD PUBLIC	LLANBERRIED	TYGLAES	R ELEAN RETTY
BLAINYMAWR	RHYDBONT BP	NOYADD A	BLAINYCWM
NANTRYCHYN LLANBEDR	TYNEWED 84	JG MAESTORGLWYDD	OLCHON COURT
EXEL T	MAESTORGLWYDD	TYNDRAIN	HILL SIDE
T C NEW FOREST	BLAENCETTY	COCKALOFTY	PENWORLD
HARGEST PARK	COCO OP	PONTWITHEL	PENANT HW
DANYCAPEL 1 P	CARBONEL A M	C TH	O P ABBEY

: P 017 TYRONEN CASTLE TYNAWR CMOLODI (00100) RD 200 VISHAN TYDU TYCANEL TYNTALE PENLAN LLANICON ALTBEY PENTWYN (9 0 TYREWEN TALSARN CWMOYNANT BULLSHEAD - 5 DL BOXBUSH TYHUNT YELLOW HOUSE ISLAND CWMDYNANT TREVOLOG LLANBEOR BLEANCWM o) RC CID XP BLAENYOY P TURNANT CAYO (~,0) > 0 0 (0:8) xw PENTHYCRWN CWMFOREST BROADLY W TURNANT O O DM SJ LOWER BLEAN LOWER HOUSE MILL TYHUNTYBWLCH

Drawn by I. Cohen from sketches by D. Grigg

SHEEP MARKINGS IN BLACK MOUNTAINS AREA.

Or indicates ears that have not been cropped. represents centre of sheep's head.

REPORTS OF SECTIONAL EDITORS

ARCHÆOLOGY

By I. COHEN.

WOODEN PILES AT HEREFORD SEWAGE WORKS

On 29th January Prebendary S. H. Martin and I were shown a double row of wooden piles about 7 feet long and 5 inches diameter with pointed ends that had been found upright about 8 feet below the original ground level when excavating for extensions to the sewage works.

Another visit accompanied by two officials of the Ministry of Works (G. Dunning and Mr. Thompson) disclosed a 10 inch square,

10 feet long wooden pile in the same vicinity. (1.3.51.)

A third visit by myself showed the excavations almost complete, showing a depth of 12 to 18 inches of shingle covering the base, with traces of shaly rock beneath. A definite third row of 3 inch piles was visible about six feet from and parallel on the east side of the original two rows which now showed clearly as about 4 feet apart. Embedded in the shingle appeared traces of horizontally interlaced saplings between the rows. Also present was an old elm log about 14 inches square at one end and 17 inches at the other, wedge shaped, end. The smaller end was notched centrally, probably to receive a cross member. Two elm tree trunks about 20 inches diameter and 8 feet long were also lying beside the square log. I was handed a pig's lower jaw bone, found on the shingle. (3.4.51.)

After examining some old maps of Hereford, two of which, dated 1610 and 1646, showed a very flat curvature of the Wye in the vicinity as compared with county maps dated 1754, 1763 and more recently, also noting two shingle beds on the opposite bank of the Wye in dry weather, I am inclined to suggest that the piles had been intended to form retaining supports for an early embankment or possibly a raised path bordering the earlier course

of the river.

Altogether eight visits were made, some without result owing to the flooded state of the site.

The entire site is now completely buried under the concrete structure of the extended sewage works.

ROMAN ROAD AT GARNONS

A Herefordshire group attached to the Archæological Survey of the West Midlands has been trying to ascertain the course of the Roman road at Garnons, with the kind permission of Sir Richard Cotterell. At the lawns in front of the house a section revealed the foundations of a Roman road at a depth of 18 inches. The road seems to have been about 8 feet wide. An attempt to trace the road westwards so far has been unsuccessful.

UNDERGROUND PASSAGE IN RABBER DINGLE, NEAR GLADESTRY

A party consisting of Messrs. Clark and Johnson of the Fire Brigade, C. Lewis, V. N. Coleman, D. Grigg and myself went to Upper Rabber farm on 11th June. 300 yards north-east by east from the farm and about ten yards west of the Herefordshire county boundary was a vertical brick lined shaft 21 inches square and 7 feet 6 inches deep. An adjoining hedge separated it from some common land overgrown with bracken. Messrs. Clark and Coleman descended the shaft and entered a horizontal passage for 50 yards up to an obstruction formed by roof falls. The floor was smooth, comparatively dry and level. The walls were rough-hewn in shaly rock, not lined, but roughly arch shaped. In line with the passage and about 50 yards from the shaft there appeared to be a circular patch free from bracken, but covered with nettles. Removing these disclosed a patch of rough small stones. Excavation was not permitted here by the farmer.

In default of a better theory I suggest that a well was sunk in the bracken-covered common land, and when it was pointed out that this was illegal a second well was dug in the farm grass land near the hedge. No water being evident a horizontal header was excavated to join up with the original well and the latter filled up with rubble. As the lowest part of the dingle is a few yards east of the passage the natural drainage would prevent accumulation of water in either well, hence their dryness. The shaft had been known 80 or 90 years ago, but had been forgotten. The lining

bricks are certainly no older than that date.

EXCAVATIONS AT WHITTERN, NEAR LYONSHALL

On 7th February, Mr. F. C. Morgan and I called on Capt. Green who showed us four fragments of pottery and two pieces of conglomerate excavated from a mound in his grounds by his son. Two feet below the surface was a group of hand assembled rocks and stones, suggesting the foundations of some building, also some fragments of pottery.

A second visit was made in company with Mr. Morgan and two officials of the Ministry of Works. The excavations were in the form of a Lorraine cross and showed more artificially laid

stones.

Mr. Dunning, of the Ministry of Works, suggested that the mound might be the remains of a 12th century castle and the pottery of about 1150 A.D. (28.2.51.)

Owing to his illness and the absence of his son very little more work had been done prior to a third visit, this time by Major A. E. W.

Salt and myself on 29th August. I was permitted to take away the potsherds and some stones that had been uncovered and Major Salt was promised a set of photographs and drawings of the excavations.

These small stone fragments have been identified by Rev.

B. B. Clarke as follows :-

Acid intrusive or extrusive igneous rock, white in colour.

Has this any relation to the Dorstone axe?

Quartz. Sandstone. Shale. Dark brown micaceous sandstone. Grit. Grit with abundance of pink felspar. Upper Ludlow shale with fossils. Brick fragments.

EXCAVATIONS AT SUTTON WALLS. 29th March to 20th April.

These will be described fully by Miss K. M. Kenyon in due course, completing her report on previous excavations which appeared in the *Transactions* of last year. In all 23 skeletons were found, many with large holes in the skulls, others decapitated. No grave goods were found, nor indications of age. Miss Kenyon believes these skeletons are relics of fighting by Roman auxiliaries and the native people.

FLINT IMPLEMENTS

DINMORE MANOR

On 22nd May I was handed several flints from Mr. Gethin Lewis of Park Cottage, Wellington. They were found when deep ploughing on the south side of the approach road to Dinmore Manor on a site extending from 200 yards south-east of the lodge to 100 yards north-east thereof. Four specimens were identified, viz.:—

A flint core, a flint point (possibly a knife), a flint with broken

ends, and a burnt flint.

BIRLEY

On 28th May, Major A. E. W. Salt produced two flints found by Mr. T. H. Harris when ploughing on Little Upcotts field on the Thorn farm at Birley. The field is part of a larger field and is marked 196 on the map and is about 1½ miles west south west of Ivington Camp.

On 29th August I accompanied Major Salt on a visit to the farm and received several more flints found near the same place.

The total finds are as follows:-

One piece of obsidian, eight flint flakes and chips, and one waisted flint. ι

PRESTEIGNE

On 29th August I accompanied Major Salt on a visit to Upper Broad Heath farm, 1½ miles south-east by east from Presteigne,

where Mr. B. Rogers handed over the following finds from recently ploughed land.

Field No. 118. One flint core, two chips of flint.

,, ,, 117. Two flint flakes.

,, 178. One piece of jasper, three pieces of blue volcanic ash.

,, 131. One drift pebble of volcanic ash, one spear head (?) (possibly a scraper), one scraper.

,, 180. One wedge shaped stone of acid lava measuring about 1½ inch square at the base and about 2¾ inches long.

One circular stone of Silurian shale measuring 3 inches diameter of an oval cross section, 1½ inches thick, possibly used for pounding or grinding.

MISCELLANEOUS

THE SOLLERS FAMILY

On 24th May, Major A. E. W. Salt produced a rubbing from a stone discovered when demolishing an old cottage at the Hyde in the Ivington-Birley district. Two legible words were "Solers, Pyon".

Accompanied by Major Salt on 29th August I visited the site but the stone was buried under wreckage. When released it will be taken over by Mr. Taylor, near the Hyde, who will make it a prominent object in his garden.

Searching through some extracts from the Exchequer Roll in the Hereford Chirograph Chest dated 1275 A.D. I found the following entry: "Henry son of William de Solers owes Aaron son of Elyas 20 marks and two sums of wheat, etc." It may thus be that the stone is not the earliest record of the Solers family.

15TH CENTURY DOORWAY FROM AUBREY STREET

A letter dated the 31st May from the Ministry of Works to Mr. F. C. Morgan states that it had been agreed to rebuild the "medieval arch by the Kemble Theatre" as the surround to the staff entrance to the new Telephone Exchange in Church Street. Unfortunately the stones were removed contrary to the orders of the Ministry, but have been stored and will be incorporated with the new building on the old site.¹

BELLS AT LEDBURY CHURCH

I visited the bell chamber on 25th June and saw the eight bells in position on their wooden mountings, the latter suffering from

death watch beetle and to be replaced by steel framing. A description of the bells appears in the *Hereford Times* of 13th July and in the local Ledbury paper of about the same date. I managed to get two photographs before dismantling, but owing to absence from the district could not follow the process.

Hearing that the bells had been returned, I paid another visit on 10th December and found steel work partly erected, the bells lying in the churchyard.

PEMBRIDGE MARKET HALL

Whilst in Weobley on 29th August I learned from Mr. E. W. Lucas that Pembridge will pay £28 for paving the Market Hall floor with gravel and bitumen. The County Council will pay £300 for kerbing. It is proposed to discontinue its use as a car park.

ROMAN PAVEMENT AT DORMINGTON

Resulting from a letter to Mr. F. C. Morgan from F. W. Munnings of Larport, Mordiford, I visited Rev. E. G. T. Simey of Dormington Vicarage to investigate a report of a Roman pavement and the finding of a Roman key about 40 years ago by Mr. Cope, whose widow now lives at Brading, I.O.W. The finds were not publicised at the time. Four trial borings about two feet deep produced no evidence of a paving and Mrs. Cope has been written to in the hope that she could narrow down the area to be investigated. (16.7.51.)

HEREFORD-BODENHAM ROAD, JUST NORTH OF THE NEW INN

Preb. S. H. Martin reported on 11th August the finding of a deposit of Roman pottery during excavations for a new house for Mr. C. T. Bishop, of Marden.

Some hundreds of shards were unearthed by Mr. V. A. Hatley, (of Durham, and with local connections). He has supplied a preliminary report, which will be followed up by a fuller one when examination of his finds has been completed. The shards are estimated to be of 2nd and 3rd centuries A.D.

UPPER BROAD HEATH FARM, NEAR PRESTEIGNE

On 29th August, Mr. B. Rogers of the above farm handed me the following finds, ploughed up:—

Glass about $3\frac{1}{4}$ by $2\frac{1}{4}$ inches, apparently part of the rim of a vessel some 5 inches diameter, varying from $\frac{1}{4}$ to $\frac{3}{8}$ inches thick.

Glass about 3½ by 3½ inches, apparently part of the rim of a vessel some 3 inches internal diameter near the base and from ½ to ½ inches thick.

Glass about $2\frac{1}{2}$ inches by $1\frac{1}{2}$, apparently part of the circumference of a vessel some $2\frac{1}{2}$ inches internal diameter and about $\frac{1}{2}$ inches thick.

¹ This fine doorway is now re-erected in Church Street. (Ed., March, 1952.)

Glass about $1\frac{5}{8}$ by $1\frac{5}{8}$ inches, apparently part of a vessel just below the rim, about 5 inches internal diameter and from $\frac{1}{4}$ inches thick, in this case the thicker part was at the lower end.

All pieces were of a lime green colour, the two latter having a mottled multicoloured surface.

The actual locality was in a field east of No. 132 on map and Lower Broad Heath Farm.

ANCIENT MONUMENTS

The following were approved for scheduling on 13th September, 1950, and 25th May, 1951.

No. 35. Pembridge Castle (uninhabited portion). 25 in. sheet map. LIII-3.

A rectangular fortified courtyard house, surrounded by a wet moat. The gatehouse and curtain wall are late 13th century (the former somewhat restored), while the west angle tower is apparently c. 1200. The crypt of the chapel is also late 13th century while the upper portions are 16th century. The existing house in the west angle of the courtyard is 17th century and is excluded from scheduled area.

Good condition, over-restored in places. R.C.H.M., Vol. 1.1

No. 124. PENYARD CASTLE, near Ross.

Earthworks and ruins of castle, partly incorporated in 17th century house built on the site. Castle was of considerable extent, dating from first half of 14th century. Remains are stone, those in house forming parts of south and west walls. Remains of vaulted 14th century undercroft (some bases of responds and a fireplace) adjoining south wall of house plus foundations of walls, remains of stairs and doorway to west of house; 14th century doorway in west wall of house.

Part of a ditch on south-west side, various other banks and foundation mounds.

In bad condition.

R.C.H.M., Vol. II, p. 166.

No. 131. URISHAY CASTLE AND CHAPEL. 6 inch map, XXXVII N.E.

Broad ditched motte, altered and surmounted by 17th century and 18th century house now ruinous; bailey almost obliterated. Chapel in bailey, two celled but chancel as wide as nave, rather featureless—possibly 12th century but altered early in 15th century, restored in 1912 but has since begun to fall into ruin again. Used as farm store.

R.C.H.M., Vol. I, p. 211-213.

No. 133. Offa's Dyke: Section south of Riddings Brook and on Herrock Hill. 6 inch map. X S.W.

Well defined bank and slight ditch from Riddings Brook to field boundary. Thence after short interval dyke begins again in Croft Plantation and carries up round Herrock Hill—well banked on south of hill, but just an accentuated scarp on north and west faces. The line, however, is very conspicuous from ground level.

R.C.H.M., Vol. III, pp. xxvii-xxxi, xlvii, Pl. 81. Archaologia Cambrensis LXXXV, Pt. I., pp. 42-44.

No. 134. Pembridge Court House (Moated Site). 6 inch map. XVIII N.E.

Large and unencumbered oval moated site, near the church, presumably home of the wealthy patrons who rebuilt the church in early 14th century. The moat is wide and deep, but dry. The Hall probably stood in the north-west corner, but no stonework is visible above ground.

No. 135. WIGMORE ABBEY. 6 inch map. II S.E., VI N.E.
Augustinian. Founded 1179 on site of a small cell by
Hugh de Mortimer. Burial place of many subsequent Mortimers.
Suppressed 1538. Excavated by Sir H. Brakspear, 1906.
Remains visible:—

1. Part of Nave (aisle-less) and transepts of church (original building 12th century) standing to full height. Quire rebuilt late 14th century, completely grubbed up and stream turned across site. Conventual buildings traced but foundations covered, partly by later house.

 Two 14th century buildings (perhaps once joined) on road—later converted into gatehouses with turret, now farm buildings. Square windows, corbels, pointed doorways.

3. Inner Gatehouse, probably contemporary with (2). Mouldings suggest early 14th century. Stone lower storey, original timber upper storey with long wooden bracket and stone corbel to each jutting beam. Remains of massive open arch brace-roof. Mutilated and widened on south face, but very important, as one of the earliest timber buildings surviving.

4. Abbot's House, preserves some 14th century detail and good 15th century window with seats, but much altered in post reform period. Partly inhabited, rest used as furniture store—better omitted from Scheduled area.

(Superb cruck-barn with subtended arch-brace, burned in late 19th century.)

R.C.H.M., Vol. III, pp. 1 and 2, plates 28 and 82. Arch. Jour. XC. Pt. I ('33), pp. 26 ff (Brakspear)

¹ R.C.H.M. = Royal Commission on Historical Monuments (Herefordshire).

No. 137. Dilwyn. Dovecote at Luntley Court. 6 inch map. XVIII N.E.

A square dovecote with four gables. Quadrilated timber framing, brick nogged. Dated 1673.

No. 138. DORSTONE CASTLE. 6 inch map. XXXI S.E.

Large oval flat topped motte with broad ditch, now tree covered. Kidney shaped platform to east, somewhat mutilated area between motte and stream to west, may be an outer bailey, but need not be included in area.

R.C.H.M., Vol. I, P. 57. Plan PXXXV. V.C.H. Heref. I. P. 236. Plan ibid.

No. 139. Cusop Castle. 6 inch map. XXXI S.W.

Irregular oval earthwork occupying a promontory over a stream, ditched on landward side and with a berm and artificial escarpment on the streamward. Streamward quarter of enclosure is slightly higher but cannot be called a motte. Entrance at east and possibly at west also. Not well preserved. Presumably mediæval but part Norman.

R.C.H.M., Vol. I. P. 47. Plan P. XXV. V.C.H. Heref. I. P. 225/6. Plan ibid.

No. 140. Mouse Castle, Cusop. 6 inch map. XXXI S.W.

A hill top fort, perhaps of pre-historic origin, but altered

into an unusual form of motte and bailey.

Outer bank, with entrance at east, remains of inner bank, and natural eccentric motte, accentuated by a steep ditch leaving a small cliff round the summit. All now tree covered.

Name said to be a misconstruction of the Welsh "Llygad yr haul", "The eye of the sun". (Llygod=a mouse.)

R.C.H.M., Vol I. p. 47. plan p. XXXV. V.C.H. Heref. I. p. 253. plan ibid.

No. 142. Lugg Bridge, Presteigne. 6 inch map X N.E.

A three span rubble bridge, with segmental arches and cutwaters both up and down stream, supporting refuges. Probably 17th century. Good condition.

R.C.H.M., Vol. III, p. 182.

ARTHUR'S CAVE. River Wye.

Correspondence has taken place with the Ministry of Works and it is hoped that the cave will be scheduled as an Ancient Monument.

Monnington and Moccas. A collection of plans made in 1710 has been presented to the Club, showing the estate as it existed at that time.

ROMAN COINS

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

Bacton, two miles from Roman Road. Finder, Mrs. Davis. Constantine I. A.D. 317-337. Providentiae Augg.

Bromyard. Provenance unknown. Brought in by Mr. J. L. Foot. Galerius. A.D. 306. Folis. Genio Aug. Minted at Heraclea. (A similar coin was found at the Knoll, Bromyard, in 1940.)

DINMORE HILL. Little Kipper Knoll. Finder, Mr. G. Priday. Nero. A.D. 54-68. As.

HUNDERTON. Found by Mr. Harding in 1948.
Constantius II. A.D. 337-361. Gloria Exercitus. Minted at Lyons.

PRESTEIGNE. Corton House, residence of Mr. L. B. Newall.

A dozen or so silver coins, said to be Roman, were found in 1941 when a tennis court was being dug up. Their present whereabouts are not known, but a gardener who witnessed the discovery said they were in a metal vessel which crumbled to dust when handled. They were beneath a number of stones of various sizes, some of them large slabs. The stones were moved to the Nash quarry nearby and made six cartloads.

In 1951 the following coins were found near the same place.

(They are now in the County Museum, Llandrindod Wells.)

Two denarii of Nerva. A.D. 96. M.S. 19. Libertas Publica. 1 One denarius of Nerva. A.D. 96. M.S. 2. Concordia Exercituum.

One denarius of Nerva. A.D. 97. M.S. 19. *Libertas Publica*. One denarius of Trajan. A.D. 98–102. M.S. 47. Winged Victory holding wreath and palm.

One denarius of Trajan. A.D. 114. M.S. 590. S.P.Q.R.

Optimo Principi.

One denarius of Sabina Augusta. A.D. 135 (?). M.S. 10-7. Veneri Genetrici.

Also found there by Mr. D. Lewis, gardener:

One denarius of Trajan. A.D. 103-111. M.S. 517. Cos V. Securitas.

One denarius of Trajan. A.D. 114-117. M.S. 624. Cos VI. Felicitas.

Another denarius of Sabina Augusta, Concordia Aug, was also brought to Presteigne this summer, probably part of the same hoard.

Other coins recently found near Presteigne:-

1942. A small copper coin of Probus in a ploughed field near Woodhouse farm, Shobdon.

¹ M.S. Mattingley and Sydenham, Roman Imperial Coinage.

1948. A sestertius of Marcus Aurelius at Castle Cottage, Stapleton. A.D. 163. M.S. 890. Victoria Aug. (Now in Hereford Museum.)

SOLLERS HOPE. Gate of Sat Ness Farm. Found by Mr. Thompson. Antoninus Pius. A.D. 138-161. Sestertius.

Weobley. Found in 1949 by Major A. E. W. Salt. Victorinus. A.D. 268-270. Providentia Aug. M.S. 61.

WITHINGTON. Found by Mr. Humphries in the garden of The Wharf Hadrian. A.D. 117-138. Sestertius. M.S. 970b.

Coins found in a field near the old toll house on the Ross road at Callow Hill, locally known as "Aconbury pennies" and said to be Roman, have now been inspected and are:-

One halfpenny of James II, one crown piece of William III, one penny of George III, and one sou of the French Revolution.

My thanks are due to Preb. S. H. Martin who compiled the list of Roman coins, to The Rev. B. B. Clarke and Mr. Gavin Robinson for identification of stones and flints, to Major A. E. W. Salt for assistance on many occasions, also of course our President, Mr. E. C. Morgan, for his advice and assistance throughout.

BOTANY

By Major A. E. W. Salt, M.A.

I am glad to report one of the most progressive years in the botanical history of the Woolhope Club since the palmy days of Ley and Purchas. This has been due to the encouragement by the Club of the newly-formed and now affiliated Herefordshire Botanical Society, which, though it has only recently kept its first birthday, has already done most excellent work. It has concerned itself at the outset with the recording of rare plants, for which purpose it organised four field days, to the Little Doward, Moccas, the Olchon Valley and the Woolhope Dome and has been greatly assisted by individual observers. It is in process of finding an observer for each of Ley and Purchas' eighteen Botanical districts, and it has begun to investigate four problems, those of orchid hybridisation, of general distribution of the mistletoe, and the spread of foreign migrants, such as the Canadian fleabane and balsam, the thorn apple (Datura stramonium) and the Claytonia siberica, which has become almost a curse in another West Midland county. The rare plants recorded on Field days were as follows :-

Olchon Valley-Globe flower, meadow thistle, bistort. Doward-Giant bell flower (one plant also at Fownhope), bee orchid, livelong, blue fleabane, impatient balsam, madder, ladies' tresses.

Moccas-Bog veronica (on Eyton Common), annual knawel

(on Dinedor).

Woolhope Dome-Deptford pink (one plant from Norton Canon in 1940), square-stalked willow herb, large thyme (also from Ewyas Harold and Sutton St. Nicholas), white thyme, white musk thistle, spurge laurel, columbine, herb paris, autumn crocus, lily of the valley, rue leaved meadow saxifrage, sweet milk vetch, barberry.

Individual records include viper's bugloss, so familiar on the seashore, from the banks of the Monnow; sharp-leaved fluellen, from Lugwardine and Hemphill; monkshood from Clehonger; penny royal from Eaton Bishop; corn marigold, small melilot on waste ground at College Hill; toothed and bur medick (also near the Bunch of Carrots) from the Hereford sewage works; henbane, from a garden at Aylestone Hill; marsh orchid, from Preston-on-Wye; Smith's pepperwort, from Hampton Bishop; narrow-leaved helleborine from Bradnor; green-winged orchis, from Dinedor; white centaury, from Bucknell; slender clover in a Hereford garden; fleabane on a Hereford wall and elecampane (only one previously recorded habitat, in the Golden Valley) at Aconbury; thorn apple from Dinmore.

The question of orchid hybridisation was brought to the notice of the society by a cross at Preston-on-Wye and at Eyton Common, and other hybrids have now been found on the Woolhope Dome.

The general distribution of plants is a large and increasingly important problem. We cannot, with our limited membership, do more than touch the fringe of the subject. The Warwickshire scheme is being financed by outside help.

So far, sixteen species of orchids of the eighteen known to grow in the county have been recorded this year; the only orchids

missing being the frog and the greater helleborine.

I am glad to say that we have again taken up the question of the occurrence of the mistletoe on unusual trees. Among those recently brought to our notice are the hawthorn, lime, crab apple, poplar, not the Lombardy poplar (common), acacia, rowan tree (mountain ash) and maple (fairly common), white willow and sycamore (not common), one tree each of the horse chestnut (rare), pear and briar rose, and one tree of the plum (very rare). It has also been reported on holly at Much Birch, where Dr.

Durham saw it and recorded it in our Transactions.

In conclusion, I should like to say that the main danger to our most interesting and unusual flora is still drainage and ploughing. I do not think that careless gatherers of rare wild flowers are so prevalent in Herefordshire as in other counties. At any rate, the members of the Herefordshire Botanical Society are alive to the peril.

ORNITHOLOGICAL REPORT, 1951.

By H. A. GILBERT AND C. W. WALKER.

A wet spring was unfavourable to the nesting of the common early nesting species: ten nests of thrushes, blackbirds and robins in one garden in April produced only nine fledged young. At rookeries, also, the broods appeared small, and few young "branchers" were in evidence in May. The conditions suited such birds as the lapwing, and more birds appeared to be breeding in the county, and, where not harried, successfully so. Redshanks attempted to breed in the lower Lugg valley, but the area dried up too soon and they gave up. Common gull flocks continue to come daily to the soaked meadows until 18th April.

The stonechat has been seen again in two localities in the county for the first time since 1947, when the severe winter killed off most of this species in inland England. It is to be hoped a record of its breeding may soon come to hand. Another species which had dwindled to vanishing point was the butcher bird, or red-backed shrike. I am glad to say a pair of shrikes was reported to be breeding this year at Hereford, and the brood was successfully brought off. Hobbies brought off a brood near Weobley, and three of this species were seen at Wormsley in September, but they may have been the Weobley brood. The reed-warbler had become very scarce in the county and fears had been expressed as to its presence, but this year several pairs certainly bred. Corncrakes were heard in early summer in Lugg meadows and at Moorhampton, but no nest was found and these birds probably passed on to nest elsewhere.

The black redstart continued to frequent the neighbourhood of the Cathedral until the 25th of March, but was not seen again there at the end of the year.

THE COLEOPTERA OF HEREFORDSHIRE

FIRST SUPPLEMENT

Compiled by HOWARD M. HALLETT, F.R.E.S.

The recent publication by the Club of Mr. Tomlin's list, has already borne good fruit, as a most interesting list of additions, made by Mr. G. H. Ashe of Colyton, Devon, has come to hand, through the good offices of Mr. J. E. M. Mellor; some captures by Mr. R. W. Lloyd whilst at Treago Castle, and Mr. A. A. Allen have been extracted from the *Entomologists' Monthly Magazine*, and a few others have been collected by the writer. Those without the captor's name are by Mr. Tomlin himself but omitted inadvertently by him. Canon W. W. Fowler's list in the Victoria County History provides others, and it seems that Mr. Tomlin must have overlooked this publication when writing up his list.

It may be well to put on record here that Canon Fowler suggested in the History that the West Malvern captures may have included Worcestershire specimens, but Mr. Tomlin in Ent. Mo. Mag. 46: 145, has put this right; his Lea Bailey records—most of this district, is of course in Gloucestershire—are also Herefordshire and are those sent him by the writer. The nomenclature in the subjoined list follows Tomlin's list, based on Beare's catalogue

of 1930.

CARABUS NEMORALIS, Ml. (Fowler, V. C. H.) NOTIOPHILUS AQUATICUS, L. (Fowler, V. C. H.) Acupalpus meridianus, L. (Fowler, V. C. H.)
Ophonus rufibarbis, F. Rare on the banks of the Teme. AMARA TIBIALIS, Pk. Hereford (Fowler, V. C. H.) LAEMOSTENUS TERRICOLA, Hb. (Fowler, V. C. H.) AGONUM OBSCURUM, Hb. Stoke Edith.
,, THOREYI, Dj. Kenchester, 1913 (Butler).
BEMBIDIUM AENEUM, Gm. (Fowler, V. C. H.) METABLETUS FOVEATUS, Gf. (Fowler, V. C. H.) Longtown, one in June (H). HALIPLUS CONFINIS, S. One at Colwall. ILYBIUS FENESTRATUS, F. (Fowler, V. C. H.) PHILYDRUS TESTACEUS, F. (Fowler, V. C. H.) OCHTHEBIUS EXSCULPTUS, Gm. Woolhope, CERCYON LUGUBRIS, Ol. (Fowler, V. C. H.) MICROGLOTTA GENTILIS, Mk. The Lea: scarce in nest of Lasius fuliginosus, April, 1950 (H). OXYPODA PROCERULA, Mann. Moccas Park, May, 1951. (Ashe, Ent. Mo. Mag. 88: 63). ZYRAS LATICOLLIS, Mk. Swarming in the same nest (H). THAMIAR A HOSPITA, Mk. Moccas, at sap run, 12th June, 1935 (Ashe.)

NOTOTHECTA FLAVIPES, Gr. In nest of Formica rufa on Great Doward. April, 1910. CONFUSA, Mk. One in nest of Lasins fuliginosus, April, 1950. (H.) ANCEPS, Er. Scarce in nest of Formica rufa, April, 1910. GLOSSOLA GREGARIA, Er. (Fowler, V. C. H.) METAXYA GEMINA, Er. Moccas, 27th July, 1950. (Ashe.)
DRALICA VILIS, Er. Moccas Park, July, 1950. (Ashe, Ent. Mo. Mag., 88: 63).
BESSOBIA FUNGIVORA, Th. (Fowler, V. C. H.) DOCHMONOTA CLANCULA, Er. Moccas, 12th June, 1935. (Ashe.) ATHETA PALLIDICORNIS, Th. Moccas, 12th June, 1935. (Ashe.) " NIGRITULA, Gr. Widely distributed in autumn. COPROTHASSA MELANARIA, Mn. West Malvern and Woolhope. SCHISTOGLOSSA VIDUATA, Er. Moccas, in tufts, 28th July, 1950. (Ashe.) GYROPHÆNA POWERI, Ch. Moccas, 16th June, 1935. (Ashe.) LEPTUSA RUFICOLLIS, Er. West Malvern, Ledbury and Stoke Edith. TACHYPORUS TRANSVERSALIS, Gr. Moccas Pool, 28th August, 1950. (Ashe.) BRYOCHARIS ANALIS, Ph. (Fowler, V. C. H.) QUEDIUS OBLITERATUS, Er. Abundant in several localities. XANTHOLINUS LINEARIS, Ol. (Fowler, V. C. H.) MEDON OBSOLETUS, Nr. West Malvern in garden refuse, 1909. STENUS MORIO, Gr. Breinton, (Butler.) " EXIGUUS, Er. (Fowler, V. C. H.) FUSCIPES, Gr. Credenhill. (Butler.) CRASSUS, S. One at Kilpeck. FLAVIPES, S. (Fowler, V. C. H.) NIVEUS, Fr. (Fowler, V. C. H.) PICIPENNIS, Er. Kenchester. (Butler.) " CICINDELOIDES, Gr. (Fowler, V. C. H.) ", LATIFRONS, Er. Cusop, Leech Pool, and by the Monnow. (Dutton.) OXYTELUS FAIRMAIREI, Pd. In moles' nests at West Malvern and Stoke Edith. Anthobium primulæ, S. Great Doward, common in primroses. SIAGONUM QUADRICORNE, K. Eastnor, not uncommon under oak bark, 22nd March, 1914. The Lea, 1940. (H.) LIODES CINNAMOMEA, Pz. (Fowler, V. C. H.) THANATOPHILUS RUGOSUS, L. (FOWIER, V. C. H.)

BYTHINUS BURRELLI, Dr. The Lea in moss, 1951. (H.)

BATRISODES VENUSTUS, Rb. Moccas Park (Allen); Treago (Lloyd).

PLECTOPHLŒUS NITIDUS, Fr. Moccas Park, 1950. (Allen & Lloyd.)

MICROMALIS FLAVICORNIS, Hb. Kerne Bridge in Polyporus.

GNATHONCUS NIDICOLA, Joy. The Lea, 1951. (H.) ABRÆUS GRANULUM, Er. Stoke Edith in rotten beech. ACRITUS ATOMARIUS, Ab. Treago, 18th May, 1950. (Allen.) EPURÆA GUTTATA, Ol. Moccas, June, 1938. (Ashe.) RUFOMARGINATA, S. (Fowler, V. C. H.)

MELANOCEPHALA, Mm. Cusop, 1913. MELIGETHES MOROSUS, Er. (Fowler, V. O. H.) RHIZOPHAGUS PARALLELOCOLLIS, Gy. As a result of an exhumation from Cusop churchyard in 1922 specimens of this beetle were found in the coffin (E.M.M., 58: 80). It has also been taken in old seed potatoes, just outside the county boundary on The Lea Bailey in 1950. (H.) " ENEUS, Ric. River Wye at Moccas. (Ashe.) MONOTOMA BREVICOLLIS, Ab. (Fowler, V. C. H.)
SILVANUS UNIDENTATUS, F. The Lea under oak bark, 1951. (H.) HENOTICUS SERRATUS, Gy. Hay in June, 1933. (Ashe.) MYCETOPHAGUS POPULI, F. Moccas, May, 1937. (Ashe.) ,, 4-GUTTATUS, Ml. Moccas, June, 1948. (Lloyd, E.M.M., 85 : 22). CTESIAS SERRA, F. Moccas in June, 1948. (Lloyd, E.M.M., 85: 22.) HELICHUS SUBSTRIATUS, MI. Common in the Teme in September.

APHODIUS BOREALIS, Gy. Common at Mathon. NIGER, Pz. Treago Castle, May, 1942, and in Wye flood refuse in 1946. (Llovd.) THROSCUS BREVICOLLIS, Br. Moccas in June, 1935. (Ashe.) , CARINIFRONS, Br. Moccas in June, 1948. (Lloyd, E.M.M., 85: 22.) , ELATEROIDES, H. Moccas in June, 1948. (Lloyd, E.M.M., 85: 22.) ELATER PRÆUSTUS, F. Moccas. (Allen.) CANTHARIS ABDOMINALIS, F. Tarrington, 1902. (Yerbury.) .. LIVIDA, L. (Fowler, V.C.H.) HAPLOCNEMUS PINI, Rd. One of this uncommon species was swept in Cornage Wood, The Lea, May, 1951. (H.) OPILO MOLLIS, L. Moccas in June, 1946. (Ashe.) NECROBIA RUFICOLLIS, F. (Fowler, V. C. H.)
PTINUS SUBPILOSUS, St. Moccas, June, 1938. (Ashe.) GRYNOBIUS EXCAVATUM, Kl. Haugh wood, Woolhope, 30th May, 1936. (Britton and Perkins). Anobium denticolle, Cz. Moccas, May, 1934. (Ashe.) DORCATOMA SERRA, Pz. Moccas, June, 1935. (Ashe.) ANITYS RUBENS, Hf. Moccas, June, 1935 (Ashe) and June, 1948. (Lloyd.) PHYMATODES TESTACEUS, L. Moccas, June, 1938 (Ashe), and June, 1948 (Llovd.) .. ALNI, L. Moccas, June, 1948. (Lloyd.) ACMEOPS COLLARIS, L. (Fowler, V. C. H.)
LEPTURA CERAMBYCIFORMIS, Sk. Ross-on-Wye and The Lea, not uncommon. LIVIDA, F. (Fowler, V. C. H.) PHYTOCIA CYLINDRICA, L. St. Weonards, five in May, 1943. (Lloyd, E.M.M., 79: 155.) LARIA RUFIMANA, Bh. (Fowler, V. C. H.) DONACIA VULGARIS, Zs. (Fowler, V. C. H.) PLATEUMARIS DISCOLOR, Pz. Devereux Pools. CRYPTOCEPHALUS HYPOCHŒRIDIS, Su. Longtown one in June, 1949. (H.) LONGITARSUS LYCOPI, Fd. Ledbury, Colwall, Stoke Edith, Whitchurch and Abbeydore. HALTICA BREVICOLLIS, Fd. (Fowler, V. C. H.) " OLERACEA, L. Longtown, one in June, 1949. (H.) PHYLLOTRETA CRUCIFERE, Cz. West Malvern on turnips. GONODERA LUPERUS, Hb. Haugh wood, Woolhope, 30th May, 1936. (Britton and Perkins). ORCHESIA UNDULATA, Kr. A few under oak bark. Cornage Farm, The Lea, April, 1950. (H.) ABDERA 4-FASCIATA, Cr. Moccas Park, June, 1948. (Lloyd, E.M.M., 85: 22.) LISSODEMA CURSOR, Gy. Tretire Bridge, July, 1945. (Lloyd, E.M.M., 82: 96.) ASCLERA SANGUINICOLLIS, F. Capler woods, Fownhope, 31st May, 1936. (Britton and Perkins). SCRAPTIA FUSCULA, Ml. Kenchester. (Butler.) Moccas, August, 1949. MORDELLA ACULEATA, L. (Fowler, V. C. H.) The Lea, one, August, 1950. (H.) XYLOPHILUS PYGMÆUS, Mt. Moccas Park, June, 1948. (Lloyd.) ANTHRIBUS FASCIATUS, Fo. Moccas, one. (Ashe.) TROPIDERES SEPICOLA, F. Moccas, May, 1935. (Ashe.) June, 1948. (Lloyd, E.M.M., 85: 22.) BARYPITHES PELLUCIDUS, Bh. Kington rare on hazel, August, 1912. GYMNETRON VERONICA, Gm. var. nigrinum Wa. Longtown, one, June, 1949. CEUTHORHYNCHUS FLORALIS, Pic. (Fowler, V. C. H.) PYRRHORHYNCHUS, Mm. Common. NIGRINUS, Mm. Moccas Park wood. (E.M.M., 51: 34.) TERMINATUS, Hb. Abbeydore, one, 10th August, 1911. MIXTUS, Mt. Hay-on-Wye, July, 1935. (Ashe.)

CEUTHORHYNCHIDIUS TROGLODYTES, F. (Fowler, V. C. H.) EPIPOLÆUS CALIGINOSUS, F. Not uncommon in hopyards, Tarrington, etc.

(Collingwood.)
Limnobaris t-album, L. (Fowler, V. C. H.) LIMOBARIS T-ALBUM, L. (Fowler, V. C. H.)

ECCOPTOGASTER MALI, Bht. (Fowler, V. C. H.)

HYLESINUS OLEIPERDA, F. (Fowler, V. C. H.)

PTELEOBIUS VITTATUS, F. (Fowler, V. C. H.)

MYELOPHILUS PINIPERDA, L. (Fowler, V. C. H.)

The following entries in Tomlin's list, part I should be amended.

Page 4. "PANAGAEUS QUADRIPUSTULATUS" to P. BIPUSTULATUS, F.

"7. "OLISTHOPUS HARPALOIDES" to BEMBIDION HARPALOIDES.

"8. 24. "SANGUINOLENTUS BIPUSTULATUS" to PHILONTHUS CRUENTATUS, Gm.

,, 26. LATHROBIUM BOREALE HOCK is considered synonymous with L. geminum, Kr., in Blear's catalogue, see page 25.

ADDITIONS 1948-1951 TO THE LIBRARY

		ADDITIONS 1948–1951 TO THE LIBRARY
-	091.	Licence [original] granted to Johanna Falwell to enter into possession of lands at Fownhope. 1448.
-	324.242	A Copy of the Poll for the county of Hereford, 1722. (This is the third example known of the work of the first Hereford
,	324.242	printer, W. Parks.) List of the Poll for the county of Hereford at the general election, 1818. (With) poll book for the city of Hereford. 1818.
`	387	Great Britain. An Act for explaining and amending an Act passed in the seventh and eighth years of William the
1	520.4	Third 17. (Concerns the navigation of the Wye and Lugg.) Lawn (Brian), Notes on a seventeenth century almanac originally belonging to Richard Corbett of Elton. Woolhope Club, 1939.
		22 pp., ports., illus., pedigree, map. 8 vo. This almanac contains many family notes, accounts, etc., in MM. It has been acquired by the Club for their library.
-	597.5	Hutton (J. Arthur). Wye salmon and other fish. 1949. illus. 4 to.
-	598.2	Birmingham and West Midland Bird Club. West Midland bird report, No. 15. The annual report for 1948 on the birds of Warwickshire, Worcestershire, and Staffordshire. 1949. illus. 8 vo.
	598.2 598.41	Herefordshire Ornithological Club. Report 1951. (Pamphlet.) Severn Wildfowl Trust. Annual reports, 1948–1949, illus. 8 vo. Added as issued.
	726.5 726.6	Blashill (T.) Churches of Kilpeck and Rowlstone. Pamphlet. Marshall (George). Hereford Cathedral: its evolution and growth. illus. 1951. B.C.
٠	749	Twiston-Davies (L.) and Lloyd-Johnes (H.) Welsh Furniture: an introduction. 1950. illus. 8 vo.
,	913.06	British Archæological Association. Journal, 3rd series. Vol. xi. 1948. illus. 8 vo.
	913.4225	Sussex Archæological Society. Sussex Archæological collections relating to the history and antiquities of the county. Vol. lxxxviii. 1949 to date. illus. 8 vo.
	913,4221	Surrey Archæological Society. Surrey archæological collections. Vol. xlix. 1944-5 to date.
1	913.4231	Wiltshire Archæological and Natural History Magazine. June, 1949 to date.
	913.4298	Carmarthen Antiquary, 1947, 1948. [To be added as issued in future.]
1	914.244	Harris (Saml. Jos.). Survey of the parish of Madley for the purpose of making a Poors Rate at Sixpence in the Pound. 1813. MS. 8 vo.
٠	914.244	Pigot & Co., Herefordshire. 1840. (Pp. 85-100 extracted from larger work.)
٠	914.244	The present state of the county of Hereford. (Pp. 321-332 of Description of England (1770?). Pamphlet.
•	920	Farn (Albert Bridges) Diaries, 1868-1918. Begun at Pimlico and continued at Dartford and Breinton. Entomological, ornithological and meteorological records. The author was a member of the Woolhope Club 1907-1921, and President in 1910.
	942.44	Holme Lacy: an episcopal manor and its tenants in the twelfth and thirteenth centuries. 1950. 8 vo.
•	942.45	Moir (Arthur Lowndes). Historic Ludlow Castle and those associated with it. 1950. illus. 8 vo.
,	942.94 942.94	Lloyd (J. K. D.). Bailiffs of Montgomery. 1936. 4 to. Borough records of Montgomery. 1937. 4 to.

ERRATA

Transactions, 1945.

P. 239, line 3, for realgar, arsenic, dis-sulphide, A.S.2, S.2, read realgar, arsenic monosulphide, AsS.

,, 4, for orpiment arsenic-tersulphide, A.S.2, S.2, read orpiment arsenic sesquisulphide As₂S₃.

,, 8, for purple of cassins read purple of cassius.

Transactions, 1948.

P. 175 line 9, for 1308 read 1208.

" ,, 15, for fourteenth read thirteenth.

,, 214 ,, 16, for Helix corcinna read Helix concinna.

" 232 " 7, for Apus A.Apus) read (Apus a. apus).

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