# H:Syudercoulud ower 1eqob <br> Probeledides 

OF THE

## DORSET RATMRALS HISPORY <br> AND

ADPTQUARIAR BIELID GLCdB.

EDITED BY
W. MILES BARNES.

VOLUME XXVI.

Dorchester:
printed at the "dorset county chronicle" office.


984683
DA
670
D69D6
126

## CONTENTS.



## INDEX TO PLATES \& ENGRAVINGS.



## RULES

of

# THE DORSET NATURAL HISTORY 

AND<br>ANTIQUARIAN FIELD CLUB.

## Object and Constitution.

1.-The Club shall be called the Dorset Natural History and Antiquarian Field Club, and shall have for a short title The Dorset Field Club.

The object of the Club is to promote and encourage an interest in the study of the Physical Sciences and Archæology generally, especially the Natural History of the County of Dorset and its Antiquities, Prehistoric records, and Ethnology. It shall use its influence to prevent, as far as possible, the extirpation of rare plants and animals, and to promote the preservation of the Antiquities of the County.
2.-The Club shall consist of (i.) three Officers, President, Honorary Secretary, and Honorary Treasurer, who shall be elected annually, and shall form the Executive body for its management; (ii.) Vice-Presidents, of whom the Honorary Secretary and Treasurer shall be two, ex officio ; (iii.) The Honorary Editor of the Annual Volume of Proceedings; (iv.) Ordinary Members ; (v.) Honorary Members. The President, Vice-Presidents, and Editor shall form a Council to decide questions referred to them by the Executive and to elect Honorary Members. The Editor shall be nominated by one of the incoming Executive and elected at the Annual Meeting.

There may also be one or more Honorary Assistant Secretaries, who shall be nominated by the Honorary Secretary, seconded by the President or Treasurer, and elected by the Members at the Annual Meeting.

Members may be appointed by the remaining Officers to fill interim vacancies in the Executive Body until the following Annual Meeting.

## President and Vice-Presidents.

3.-The President shall take the chair at all Meetings, and have an original and a casting vote on all questions before the Meeting. In addition to the two ex officio Vice-Presidents, at least three others shall be nominated by the President, or, in his absence, by the Chairman, and elected at the Annual Meeting.

## Hon. Secretary.

4.-The Secretary shall perform all the usual secretarial work; cause a programme of each Meeting to be sent to every Member seven days at least
before such Meeting; make all preparations for carrying out meetings and, with or without the help of a paid Assistant Secretary or others, conduct all Field Meetings. On any question arising between the Secretary (or Acting Secretary) and a Member at a Field Meeting, the decision of the Secretary shall be final.

The Secretary shall receive from each Member his or her share of the day's expenses, and thereout defray all incidental costs and charges of the Meeting, rendering an account of the same before the Annual Meeting to the Treasurer; any surplus of such collection shall form part of the General Fund, and any deficit be defrayed out of that Fund.

## Hon. Treasurer.

5.-The Treasurer shall keep an account of Subscriptions and all other moneys of the Club received and of all Disbursements, rendering at the Annual General Meeting a balance sheet of the same, as well as a general statement of the Club's finances. He shall send copies of the Annual Volume of Proceedings for each year to Ordinary Members who have paid their subscriptions for that year (as nearly as may be possible, in the order of such payment), to Honorary Members, and to such Societies and individuals as the Club may, from time to time, appoint to receive them. He shall also furnish a list at each Annual Meeting, containing the names of all Members in arrear, with the amount of their indebtedness to the Club. He shall also give notice of their election to all New Members.

## Ordinary Members.

6.     - Ordinary Members are entitled to be present and take part in the Club's proceedings at all Meetings, and to receive the published "Proceedings" of the Club, when issued, for the year for which their subscription has been paid.
7.-Every candidate for admission shall be nominated in writing by one Member and seconded by another, to one of whom at least he must be personally known. He may be proposed at any Meeting, and shall receive programmes of Meetings and exercise all the functions of a Member, except voting and bringing friends to Meetings. His name shall appear in the programme of the first following Meeting at which a Ballot is held, when he shall be elected by ballot, one black ball in six to exclude. Twelve Members shall form a quorum for the purpose of election. A Ballot shall be held at the Annual and Winter Meetings, and may be held at any other Meeting, should the Executive so decide, notice being given in the programme.
8.-The Annual Subscription shall be 10s., which shall become due and payable in advance on the lst of January in each year. Subscriptions paid on election after September in each year shall be considered as subscriptions for the following year, unless otherwise agreed upon by such Member and the Treasurer. Every Member shall pay immediately after his election the sum of ten shillings as Entrance Fee, in addition to his first Annual Subscription.
9.-No person elected a Member shall be entitled to exercise any privilege as such until he has paid his Entrance Fee and first Subscription, and no Member shall be entitled to receive a copy of the "Proceedings" for any year until his Subscription for that year has been paid.
10.-A registered letter shall be sent by the Hon. Treasurer to any Member whose Subscription is in arrear at the date of any Annual Meeting, demanding payment within 28 days, failing which he shall cease to be a Member of the Club, but shall, nevertheless, be liable for the arrears then due.
11.-Members desiring to leave the Club shall give notice of the same in writing to the Treasurer (or Secretary), but, unless such notice is given before the end of January in any year, they shall be liable to pay the Annual Subscription due to the Club on and after January 1st in that year.

## Honorary Members.

12.-Honorary Members shall consist of persons eminent for scientific or natural history attainments, and shall be elected by the Councll. They pay no subscription, and have all the privileges of Ordinary Members, except voting. .

## Meetings.

13.-The Annual General Meeting shall be held as near the first week in May as may be convenient; to receive the outgoing President's Address (if any) and the Treasurer's financial report; to elect the Officers and Editor for the ensuing year; to determine the number (which shall usually be three or four), dates, and places of Field Meetings during the ensuing summer, and for general purposes.
14.-Two Winter Meetings shall usually be held in or about the months of December and February for the exhibition of Objects of Interest (to which not more than one hour of the time before the reading of the Papers shall be devoted), for the reading and discussion of Papers, and for general purposes.

The Dates and Places of the Winter and Annual Meetings shall be decided by the Executive.
15.-A Member may bring Friends to the Meetings subject to the following restrictions:-No person (except the husband, wife, or child of a Member), may attend the Meeting unaccompanied by the Member introducing him, unless such Member be prevented from attending by illness, and no Member may take with him to a Field Meeting more than one Friend, whose name and address must be submitted to the Hon. Secretary and approved by him or the Executive.

The above restrictions do not apply to the Executive or to the Acting Secretary at the Meeting.
16.-Members must give due notice (with prepayment of expenses) to the Hon. Secretary of their intention to be present, with or without a Friend, at any Field Meeting, in return for which the Secretary shall send to the Member a card of admission to the Meeting, to be produced when required. Any Member who, having given such notice, fails to attend will be liable only for any expenses
actually incurred on his account, and any balance will be returned to him on application. The sum of 1 s ., or such other amount as the Hon. Secretary may consider necessary, shall be charged to each person attending a Field Meeting, for Incidental Expenses.
17.-The Executive may at any time call a Special General Meeting of the Members upon a written requisition (signed by Eight Members) being sent to the Honorary Secretary. Any proposition to be submitted shall be stated in the Notice, which shall be sent to each Member of the Club not later than seven days before the Meeting.

## Papers.

18.-Notice shall be given to the Secretary, a convenient time before each Meeting, of any motion to be made or any Paper or communication desired to be read, with its title and a short sketch of its scope or contents. The insertion of these in the Programme is subject to the consent of the Officers of the Club, or any two of them.
19.-The Publications of the Club shall be in the hands of the Executive, who shall appoint annually Three or more Ordinary Members to form with them and the Editor a Publication Committee for the purpose of deciding upon the contents of the Annual Volume. These contents shall consist of original papers and communications written for the Club, and either read, or accepted as read, at a General Meeting; also of the Secretary's Reports of Meetings, the Treasurer's Financial Statement and Balance Sheet, a list to date of all Members of the Club, and of those elected in the current or previous year, with the names of their proposers and seconders. The Annual Volume shall be edited by the Editor subject to the direction of the Publication Committee.
20.-Twenty-five copies of his paper shall be presented to each author whose communication shall appear in the volume as a separate article, on notice being given by him to the Publisher to that effect.

## New Rules.

21.-No alteration in or addition to these Rules shall be made except with the consent of a majority of three-fourths of the Members present at the Annual General Meeting, full notice of the proposed alteration or addition having been given both in the current Programme and in that of the previous Meeting.
ix.

## The Derset Datural History and Antiquarian sield Club.

INAUGURATED MARCH 26th, $18 \% 5$.<br>President:<br>NELSON M. RICHARDSON, Esq., B.A.<br>Vice-Presidents :<br>The Lobd EUSTACE CECIL, F.R.G.S.<br>Rev. Herbert Pentin, M.A., F.S.A. Ed. (Hon. Secretary). Captain G. R. ELWES, J.P. (Hon. Treasurer). Rev. W. MILES BARNES, B.A. (Hon. Editor): W. H. HUDLEston, Esq., M.A., F.R.S., F.L.S., F.G.S.<br>Rev. J. C. M. MANSEL-PLEYDELL, M.A. H. COLLEY MARCH, Esq., M.D., F.S.A.<br>Rev. O. PICKARD-CAMBRIDGE, M.A., F.R.S., F.Z.S. R. BOSWORTH SMITH, Esq., M.A.<br>Hon. MORTON G. Stuart-GRay, M.A., F.S.A. Ed., F.G.S.<br>Hon. Editor:<br>Rev. W. Miles Barnes, B.A., Monkton Rectory, Dorchester. Executive Body:<br>Nelson M. Richardson, Esq., B.A. (Piesident).<br>Rev. Herbert Pentin, M.A., F.S.A. Ed. (Hon. Secretary), Milton Abbey Vicarage, Blandford.<br>Captain G. R. Elwes, J.P. (Hon. Treasurer), Bossington, Bournemouth.<br>\section*{Publication Committee:}<br>The Executive, The Hon. Editor, H. B. Middleton, Esq., Dr. Colley March, and E. R. Sykes, Esq.<br>Honorary Members:<br>W. Carruthers, Esq., F.R.S., F.G.S., F.L.S., British Museum (Nat. Hist.),<br>Rev. Osmond Fisher, M.A., F.G.S., Harlton Rectory, Cambridge.<br>A. J. Jukes-Browne, Esq., F.G.S., Floriston, Cleveland Road, Torquay.<br>R. Lidekrer, Esq., F.R.S., The Lodge, Harpenden, Herts.<br>Alfred Newton, Esq., M.A., F.R.S., Professor of Zoology and Comparative<br>Anatomy, Magdalen College, Cambridge.<br>Clement Reid, Esq., F.R.S., 28, Jermyu Street, London, S.W.<br>A. Smith-Woodward, Esq., F.R.S., F.G.S., British Museum (Nat. Hist.), South Kensington, London.<br>Mr. A. M. Wallis, 29, Mallams, Portland.<br>Sir Wh. Thiselton Dyer, Director of Kew Gardens, London.<br>Sir Frederick Treves, Bart., G.C.V.O., C.B., LL.D., 6, Wimpole Street, Cavendish Square, London, W.

X.

## LIST OF MEMBERS

of the

## Doxsef Zlafuraf disifoxy \& Anfiquaxiant Bitels Elub.

| $\begin{aligned} & \text { lear of } \\ & \text { Election. } \end{aligned}$ | $f$. The initials " 0.1 IL." signify " 0 | riginal Member."; |
| :---: | :---: | :---: |
| 1902 T | The Lord Lieut. of Dorset, the Right Hon. the Earl of Ilcheschester | Melbury House, Evershot |
| 1903 ' | The Most Hon. the Marquis of Salisbury | The Manor House, Cranborne |
| 1903 T | The Most Hon. the Marchioness of Salisbury | The Manor House, Cranborne |
| 1902 T | The Right Hon. the Earl of Shaftesbury | St. Giles, Wimborne |
| O.x. | The Right Hon. Viscount Portman | Bryanston, Blandford |
| 1884 ' | The Right Hon. Lord Eustace Cecil, F.R.G.S. (IVice-President) | Lytchett Heath, Poole |
| 1903 ' | The Right Hon. the Lady Eustace Cecil | Lytchett Heath, Poole |
| 1904 ' | The Right Reverend the Lord Bishop of Durham, D.D. | Auckland Castle, Bishop's Auckland |
| 1890 ' | The Right Reverend the Lord Bishop of Salisbury, D.D. | The Palace, Salisbury |
| 1892 ' | The Right Reverend the Lord Bishop of Worcester, D.D. | Hartlebury Castle, Kidderminster |
| 1889 | The Right Hon. Lord Digby | Minterne, Dorchester |
| 1893 ' | The Right Hon. Lord Walsingham, F.R.S. | Merton Hall, Thetford, Norfolk |
| O.Y. | The Right Hon. Lord Stalbridge | Motcombe House, Shaftesbury |
| 1903 T | The Rught Hon. Lord Chelmsford | Governor's House, Brisbane, Quénsland, Australia |
| 1893 | Acland, Captain John E. | Wollaston House, Dorchester |
| 0.3. | Acton, Rev. Edward, B.A. | Iwerne Minister Vicarage, Blandford |
| 1905 | Aldis, T. S., Esq., M.A. | Bowhayes, Bothenhampton, Bridport |
| 1899 | Aldridge, Mrs. Selina | Shirley, Dorchester Road, Weymouth |
| 1889 | Allen, George, Esq. | Strangways, Marnhull, Blandford |
| 1892 | Allhusen, Wilton, Esq. | Clevelands, Lyme Regis |

1902
1892

1902 Barkworth, Edmund, Esq.
1904 Barlow, Major C. M.
$189 t$ Barnes, Mrs. John Iles
1889 Barnes, Rev. W. M., B.A., R.D. (Iice - President and Hon. Editor)
1903 Barnes, F. J., Esq.
1903 Barnes, Mrs. F. J.
1884 Barrett, W. Bowles, Esq.
1895 Bartelot, Rev. R. G., M.A.
1886 Baskett, Rev. C. R.
1893 Baskett, S. R., Esq.
1904 Baskett, Mrs. S. R.
1889 Batten, H. B., Esq.
1888 Beckford, F. J., Esq.
o.m. Bond, N., Esq.

1903 Bond, Gerald Denis, Esq.
1898 Bond, Wm. H., Esq.
1903 Bond, Wm. Ralph G., Esq.
1894 Bonsor, Geo., Esq.
1903 Butler-Bowdon, Bruno, Esq.
1903 Butler-Bowdon, Mrs. Bruno
1889 Bower, H. Syndercombe, Esq.
1900 Bower, Rev. Charles H. S., M.A.
1900 Bowker, James, Esq.
1903 Bramble, Lieut.-Colonel James Roger, F.S.A.
1898 Brandreth, Rev. F. W., M.A.
1901 Brennand, John, Esq.
1885 Brennand, W. E., Esq.
1905 Bromley, Miss
1898 Brown, J., Esq.
1900 Brown, Miss
1891 Browning, Benjamin, Esq., M.D., Staff-Surgeon R.N., Fellow of the Sanitary Institute of Great Britain

Ranston, Blandford
Glencairn, Wimborne
Wolfeton House, Dorchester
Norden House, Corfe Castle, Wareham
The Close, Salisbury
South House, Piddletrenthide
Southcot, Charminster
Summerhayes, Blandford

Monkton Rectory, Dorchester
Rodwell, Weymouth
Rodwell, Weymouth
Weymouth
Church House, Salisbury
Bristwith Vicarage, Ripley, Leeds
Evershot
Evershot
Aldon, Yeovil
Witley, Parkstone
Holme, Wareham
Holme, Wareham
Tyneham, Wareham
Tyneham, Waredam
The Gables, Spetisbury
Upwey House, Upwey
Upwey House, Upwey
Fontmell Parva, Shillingstone, Blandford
Hinton St. Mary, Sturminister Newton, Dorset
101, Lansdowne Place, Hove, Brighton
Seafield, Weston-super-Mare
Buckland Newton, Dorchester
Belmont, Parkstone
Blandford
Stinsford Vicarage, Dorchcster
Maiden Newton
Belle Vue, Shaftesbury

Bec-en-Hent, Yetminster, Sherborne
xii.

1904 Bruce, Rev. A. R. Turing
1895 Brymer, Rev. J. G., M.A.
1900 Bullen, Colonel John Bullen Symes
1894 Burt, Miss Emma
1897 Busk, W., Esq., A.R.C.A.
1905 Busk, W., Esq.
1905 Busk, Mrs. W.
1901 Bussell, Miss Katherine
1903 Buttery, Miss E. M. E.
1891 Carter, William, Esq.
1904 Cartwright, Rev. G. F., M.A.
1893 Chadwick, Mrs.
1903 Champ, A., Esq.
1905 Chater, F. T., Esq., B.A.
1904 Christie, D., Esq.
1883 Chudleigh, Rev. R. Augustine, M.A.

1897 Chudleigh, Mrs.
1901 Chudleigh, Miss W. M.
1891 Church, Colonel Arthur
1904 Clapcott, Miss
1892 Clarence, Lovell Burchett, Esq.
1895 Clarke, R. Stanley, Esq.
1883 Colfox, Miss A. L.
1878 Colfox, T. A., Esq.
o.m. Colfox, W., Esq., B.A.

1903 Collins, Wm. Wiehe, Esq., R.I.
1905 Collins, Stephen, Esq., L.C.C.
1904 Coney, Major Wm. Bicknell
1902 Cornish, Rev. W. F., M.A.
1903 Cornish-Browne, C. J., Esq.
1891 Cother, Rev. P. L., M.A.
1900 Cox, Henry, Esq., F.S.A., F.R.G.S., M.J.S.

1901 Crallan, G. J., Esq., M.B.
1905 Cree, Cecil, Esq.
1886 Crespi, A. J. H., Esq., B.A., M.R.C.P.

1879 Crickmay, G. R., Esq., F.R.I.B.A.
1884 Cross, Rev. James, M.A.

62, Abbotsbury Road, Westham, Weymouth
Childe Okeford Rectory, Blandford
Catherston Leweston, near Charmouth
Purbeck House, Swanage
West Walks, Dorchester
Wraxall, Maiden Newton, Dorchester
Wraxall, Maiden Newton, Dorchester
Thorneloe, Bridport
Lodmoor House, Weymouth
The Hermitage, Parkstone
Woolland, Blandford
Chetnole, Sherborne
Bradpole Road, Bridport
Okeford Fitzpaine, Blandford
Southdown Lodge, Preston, Weymouth
West Parley Rectory, Wimborne
West Parley Rectory, Wimborne
West Parley Rectory, Wimborne
St. Alban's, Rodwell, Weymouth
Linden Arenue, Dorchester
Coaxden, Axminster
Rotherhill, Steadham, Midhurst, Sussex
Westmead, Bridport
Coneygar, Bridport
Westmead, Bridport
West Holme Lodge, Wareham
Harborne, St. Ann's Hill, Wandsworth, S.W.
Martinstown, Dorchester
Steepleton Rectory, Dorchester
Came House, Dorchester
1, Clearmount, Weymouth
Radipole Manor, near Weymouth
Bodorgan Manor, Bournemouth
Owermoigne Court, Dorchester
Wimborne
Weymouth
Baillie House, Sturminster Marshall, Wimborne

Cull, James, Esq.
47, Phillimore Gardens, Campden Hill, London, W.
1885 Curme, Decimus, Esq., M.R.C.S.
1896 Curtis, C. H., Esq.
1897 Curtis, Wilfred Parkinson, Esq.
1903 Dacombe, J. M. J., Esq.
o.m. Dale, C. W., Esq.

1905 Danneman, Rev. A. F. J., M.A.
1902 Darell, D., Esq., F.G.S., F.L.S., F.Z.S.

1893 Dansey, Miss S. J. T.
1904 Davies, Rev. Canon S. E., M.A.
1894 Davis, Geo., Esq.
1904 Deane, Mrs. A. M.
1904 Dicker, Rev. C. W. H., F.R.G.S.
1903 Digby, Captain H. Montague

1304 Donald, W. P., Esq.
1904 Drake, Rev. Herbert, B.A.
1900 Du Boulay, Mrs.
1905 Duke, Henry, Esq.
1905 Duke, Mrs. Henry
1896 Dundas, Ven. Archdeacon, M.A.
1904 Dugdale, J. B., Esq.
1891 Eaton, Henry S., Esq.

1897 Edwards, Miss Sarah Powell
1885 Elwes, Captain G. R. (VicePresident and Hon. Treasurer)
1905 Evans, Miss Isabel Warwick
1905 Evans, Miss Annie Elizabeth
1886 Falkner, C.G., Esq., M.A.
1884 Farley, Rev. H., M.A.
1903 Farrer, Colonel Philip
1905 Feacey, Jem, Esq.
1900 Ferguson, Colonel C. J. O'Neill
1904 Ffooks, Mrs. E. Archdall
1904 Fielding, Thos., Esq., M.D.
1903 Figgis, Rev. J. N., M.A.
1892 Filleul, Rev. S. E. V., M.A.
1889 Filliter, George Clavell, Esq.
1896 Filliter, Rev. W. D., M.A.
1901 Fisher, Mrs. J. F.

Childe Okeford, Blandford
Blandford
Aysgarth, Parkstone Road, Poole
27, Holdenhurst Road, Bournemouth
Glanvilles Wootton, Sherborne
Broadway

Ford Hill, Townstal, Dartmouth, Devon
Lindisfarne, Weymouth
Wyke Regis Rectory, Weymouth
Prince of Wales' Road, Dorchester
Clay Hill House, near Gillingham
Charminster, Dorchester
Chalmington House, Cattistock, Dorchester

County Education Office, Dorchester
Worth Matravers, Wareham
2, Royal Terrace, Weymouth
Clandon, Dorchester
Clandon, Dorchester
Charminster Vicarage, Dorchester
Sandford, Wareham
The National Club, 1, Whitehall Gardens, London, S.W.
11, Greenhill, Weymouth

Bossington, Bournemouth
Clandon, Dorchester
Clandon, Dorchester
Ireton Bank, Rusholme, Manchester
Lytchett Minster, Poole
Binnegar Hall, Wareham
Dorchester
The Dinedors, Spa Road, Weymouth
Sherborne
Milton Abbas, Blandford
Marnhull Rectory, Blandford
All Saints' Rectory, Dorchester
St. Martin's House, Wareham
East Lulworth Vicarage, Wareham
Vines Close, Wimborne
xiv.

1890 1878

1896

1898

1897 Forde, Henry, Esq.

1893 Fullaway, Mrs.
o.x. Fyler, Captain J. W. T.

1892 Gallwey, Captain E. Payne
o.m. Galpin, G., Esq.

1896 George, C. E. A., Esq.
1904 Glover, Rev. J. R.

1890 Glyn. Captain Carr Stuart
o.m. Glyn, Sir R. G., Bart.

1895 Godman. F. du Cane, Esq., F.R.S. South Lodge, Lower Beeding, Horsham
1993 Gordon, George H., Esq.
1883 Gorringe, Rev. P. R., M.A.
1903 Gorringe, Mrs. P. R.
1888 Greves, Hyla, Esq., M.D.

1903 Hambro, Everard A., Esq.
1905 Hambro, C. Eric, Esq., M.P.
1893 Hankey, Rev. Canon, M.A., R.D.
1886 Hansford, Charles, Esq.
1901 Hardwick, Stewart, Esq.
1890 Harrison, Rev. F. T., M.A.
1897 Harston, Comdr. F. A. (late R. N.)
Aldwick Manor, Bognor, Sussex
Fletcher, W. J., Esq., F.R.I.B.A. The Chantry, Wimborne
Floyer, G. W., Esq.. B.A. West Stafford, Dorchester
Shillingstone, Blandford
Luscombe, Parkstone
St. John's Cottage, Shaftesbury
Bryanston, Blandford
Bryanston, Blandford
The Chantry, Gillingham
11, The Hawthorns, Regent's Park Road, Church End, Finchley
11, The Hawthorns, Regent's Park
Road, Church End, Finchley
Sturminster Newton
Hethfelton, Wareham
Beacon Hill, Weymouth
Clarendon Court, Clarendon, Road Bournemouth
Fleet House, near Weymouth
Fleet House, near Weymouth
Winterborne Clenstone Rectory, Blandford
Wood Leaze, Wimborne
Uddens, Wimborne
Gaunts House, Wimborne

North Cheriton, Templecombe, Somerset
Manston Rectory, Blandford
Manston Rectory, Blandford
Rodney House, Bournemouth
12, Royal Terrace, Weymouth
Clifton, Weymouth
Chipping Norton, Oxfordshire
Osmington Lodge, Osmington, Weymouth
Milton Abbey, Dorset
70, Prince's Gate, London, S.W.
Maiden Newton Rectory, Dorchester
Dorchester
21, Commercial Road, Bournemouth
Burton Bradstock Rectory, Bridport
Newlands, Glendinning Avenue, Weymouth

| 1896 | Hart-Dyke, Rev. Canon P., M.A. | Lullingstone, Wimborne |
| :---: | :---: | :---: |
| 1900 | Hasluck, Rev. Ernest, M.A. | Handley Vicarage, Salisbury |
| 1898 | Hassell, Miss | Westfield Lodge, Parkstone |
| 1894 | Hawkins, W., Esq., M.R.C.S. | Broadway, Dorchester |
| 1903 | Hawkins, Mrs. H. | Rew House, Martinstown, Dorchester |
| 1903 | Hawkins, Miss Isabel | Wyke, Sherborne |
| 1893 | Hayne, R., Esq. | Fordington House, Dorchester |
| 1889 | Head, J. Merrick, Esq., M.R.I.A., F.R.G.S., F.P.S. | Pennsylvania Castle, Portland |
| 1905 | Heath, F. R., Esq. | The Woodlands, Weymouth |
| 1905 | Heath, Sidney H. S., Esq. | The Woodlands, Weymouth |
| 1903 | Heathcote, Colonel Gilbert | East Lulworth, Wareham |
| 1899 | Henning, Mrs. | Frome, Dorchester |
| 1901 | Hill, R. E., Esq. | Long Lynch, Childe Okeford, Shillingstone |
| 1002 | Hine, R., Esq. | Beaminster |
| 1885 | Hogg, B. A., Esq. | Dorchester |
| 1902 | Homer, Miss E. C. Wood | Bardolf Manor, Puddletown |
| 1883 | Howard, Sir R. N. | Weymouth |
| 1897 | Hudleston, W. H., Esq., M.A., F.R.S., F.L.S., F.G.S. (VicePresident) | West Holme, Wareham |
| 1888 | Huntley, H. E., Esq. | Charlton House, Blandford |
| 1893 | Hurdle, H. A., Esq., A.R.A.M. | 2, Frederick Place, Weymouth |
| 1894 | Hussey, Rev. J., M.A. | Pimperne Rectory, Blandford |
| 1903 | Jenkins, Rev. T. Leonard, M.A. | Leigh Vicarage, Sherborne |
| 1904 | Jones, Rev. J. F., M.A. | Osmington Vicarage, Weymouth |
| 1893 | Kerr, E. W., Esq., M.D. | South Street, Dorchester |
| 1899 | Kettlewell, Geo. Douglas, Esq. | Capstone Lodge, Iffracombe, Devon |
| 1895 | Lafontaine, A. C. de, Esq., F.S.A. | Athelhampton, Dorchester |
| 1904 | Lamb, F. W. J. A., Esq., M.D., D.P.H. | Cornwall Road, Dorchester |
| 1902 | Langdon, Miss M. | Parrock's Lodge, Chard |
| 1901 | Langford, Rev. Canon, M.A. | Belle Vue, Higher Hove, Plymouth |
| 1883 | Leach, J. Comyns, Esq., M.D. | The Lindens, Sturminster Newton, Blandford |
| 1901 | Lee, W. H. Markham, Esq., I.S.M. | Wyke Regis, Weymouth |
| 1900 | Legge, Miss Jane | Allington Villa, Bridport |
| 1899 | Le Jeune, H., Esq. | St. Ives, Upper Farkstone, Dorset |
| 1900 | Leslie, Rev. E. C., M.A. | Came Rectory, Dorchester |
| 1902 | Lewis, Rev. A., M.A. | Littlebredy, Dorchester |
| 1894 | Linklater, Rev. Robert, D.D. | Stroud Green Vicarage, London, N. |

xvi.

1890 Lister, Arthur, Esq., F.R.S.,
F.L.S.

1890 Lister, Miss Gulielma
1902 Littledale, T. A. R., Esq.
1900 Lock, Mrs. A. H.
1892 Lock, B. F., Esq.
1893 Lock, Miss Mary C.
1905 Lush, Mrs. W. Vawdrey
1901 Lys, F. D., Esq., M.R.C.S., L.R.C.P.

1888 Macdonald, P. W., Esq., M.D.
1902 Mainwaring, Lieut. - Colonel F. G. L.

1890 Manger, A. T., Esq.
1894 Mansel-Pleydell, Mrs.
1899 Mansel-Pleydell, Rev. J. C. M., M.A., R.D. (Vicc-President)

1896 March, H. Colley, Esq., M.D., F.S.A., M.R.S.A.I., F.A.I. ( Tice-President)
1883 Marriott, Sir W. Smith, Bart.
1904 Marsh, J. L., Esq.
1897 Martin, Miss Eileen
1885 Mate, William, Esq., F.R. Hist. Soc.

1901 Maude, W., Esq., B.C.L.
1879 Maunsell, Rev. F. W., M.A.
o.m. Mayo, Rev. Canon, M.A., R.D.

1902 Mayo, Miss B.
1904 Mears, Mrs.
o.m. Middleton, H. B., Esq.

1900 Middleton, Miss L. M.
1890 Milne, Rev. Percy H., M.A.
o.m. Moorhead, J., Esq., M.A., M.D.

1905 Morgan, Mrs.
1898 Morrice, G. G., Esq., M.A., M.D.

1897 Moullin, Arthur D., Esq.
1904 Newman, Rev. W. A., B.A.
1905 Nicholson, Captajn Hugh
1886 Okeden, Colonel U. E. Parry

High Cliffe, Lyme Regis
High Cliffe, Lyme Regıs
11, Greenhill, Weymouth
53, High West Street, Dorchester
11, New Square, Lincoln's Inn, London
53, High West Street, Dorchester
12, Frederick Place, Weymouth
Highclere, Rodwell, Weymouth
County Asylum, Dorchester
Wabey House, Upwey
Stock Hill, Gillingham
Longthorns, Blandford
Sturminster Newton Vicarage, Blandford

Portesham, Dorchester
The Down House, Blandford
White Cliff Mill Street, Blandford
4, Greenhill, Weymouth
Homehurst, Westbourne, Bournemouth
Brackenwood, Bournemouth
Symondsbury Rectory, Bridport
Long Burton Vicarage, Sherborne
Friar Waddon, Dorchester
Milton Abbas Grammar School, Blandford
Bradford Peverell, Dorchester
Lulworth, Wareham
Evershot Rectory, Dorchester
1, Royal Terrace, Weymouth
Haselbury Bryan Rectory, Blandford
17, Royal Terrace, Weymouth
Fermain, Cranbourne Road, Swanage
Winterborne Kingston, Wareham
Thornford Rectory, Sherborne
Turnworth, Blandford

1901 Pentin, Rev. Herbert M.A., F.S.A. Ed. (Tice-President and Hon. Secretary)
1893 Perkins, Rev. T., M.A., F.R.A.S.
1894 Peto, Sir Henry, Bart.

1896 Phillips, Mrs.
1889 Philpot, J. E. D., Esq.
1898 Pickard-Cambridge, A. W., Esq. M.A.
o.m. Pickard - Cambridge, Rev. O., M.A., F.R.S. (Fice-President)
$19 \mathrm{I}_{4}$ Pinney, Geo. F., Esq.
1903 Pitt-Rivers, A. L. Fox, Fsq., F.S.A.

1905 Pitt-Rivers, Mrs. A. L. Fox
1904 Plowman, Rev. L. S.
1896 Pond, S., Esq.
1894 Ponting, Chas. E., Esq., F.S.A.
0.m. Pope, Alfred, Esq.

1902 Pope, Miss Violet
1905 Pope, Miss Hilda
1900 Pope, George, Esq.
1896 Prideaux, C. S., Esq., L.D.S.
1900 Prideaux, W. de C., Esq., L.D.S.
1905 Pringle, Henry T., Esq., M.D.
1905 Pringle, Mrs. Henry T.
1888 Pye, William, Esq.
1888 Radclyffe, Eustace, Esq.
1902 Ralls, James, Esq.
1905 Ramsden, Mrs.

Castle House, Weymouth
Bere Regis, Wareham
Manor House, Wootton Fitzpaine, Charmouth
Holmlea, Lincoln
13, Greenhill, Weymouth
Rydal, Wimborne
4, Westerhall Villas, Weymouth
Sandacres, Parkstone
Tarrant Rushton Rectory, Blandford

Milton Abbey Vicarage, Blandford
Turnworth Rectory, Blandford
Chedington Court, Misterton, Crewkerne
Okeford Fitzpaine, Blandford
Holme Cleve, Lyme Regis
22, St. Margaret's Road, Oxford
Bloxworth Rectory, Wareham
c/o Mr. J. Pope, Wilts and Dorset Bank, Wareham
Kingbarrow, Wareham
Brooklands, Beaminster
Hinton St. Mary, Blandford
Hinton St. Mary, Blandford
Ibberton Rectory, Blandford
Blandford
Wye House, Marlborough
South Court, Dorchester
South Court, Dorchester
South Court, Dorchester
Weston Hall, Bournemouth
32, High West Street, Dorchester
32, High West Street, Dorchester
Ferndown, Wimborne
Ferndown
Dunmore, Rodwell, Weymouth
Hyde, Wareham
Bridport
Great Bidlake, Bridestow, N. Devon
xviii.
o.m. Ravenhill, Rev. Canon, M.A., R.D. Buckland Newton Vicarage, Dorchester

| 1905 | Raymond, F., Esq. |
| :--- | :--- |
| 1899 | Reeve, Mrs. Henry |
| 1899 | Rendell, W. F., Esq. |
| 1886 | Reynolds, Mrs. Arthur |
| 1904 | Rhydderch, Rev. W. |
| 1887 | Richardson, N. M., Esq., B.A. | (President)

1889 Ridley, Rev. O.M., M.A.
1901 Ridley, Rev. J.
1894 Rixon, W. A., Esq.
1890 Robinson, Sir Charles, F.S.A.
1898 Robinson, Vincent, Esq., C.I.E., F.S.A.

1886 Rodd, Edward Stanhope, Esq.
1889 Russell, Colonel C. J., R.E.
1905 Saunt, Miss
1905 Saunt Miss B. V.
1889 Schuster, Rev. W. P., M.A.
1904 Seaman, Rev. C. E., M.A.
1883 Searle, Alan, Esq.
1902 Sells, Rev. Alfred, M.A.
1903 Sewell, R. B. Seymour, Esq., B.A., F.A.I.

1896 Shepheard, Thomas, Esq., F.R.M.S.

1903 Shepherd, Rev. C. S., F.C.S.
1903 Sheridan, Mrs. A. T. Brinsley
1884 Sherren, J. A., Esq., F.R. Hist. S.
1905 Sherren, Wilkinson, Esq.
1897 Simpson, Jas., Esq.
1895 Simpson, Miss
1898 Slater, Robert, Esq., F.G.S.
1899 Smith, Howard Lyon, Esq., L.R.C.P.

1902 Smith, R. Bosworth, Esq., M.A. (Tice-President)
1894 Snook, S. P., Esq., M.R.C.S., L.R.C.P.

1905 Smith, Rev. E. Heriz, M.A.

Garryowen, Dorchester
62, Rutland Gate, London, W.
Hallow Dene, Parkstone
Westland, Bridport
Owermoigne Rectory, Dorchester
Montevideo, Chickerell, near Weymouth
East Hill, Charminster, Dorchester
The Rectory, Pulham, Dorchester
Alfoxton Park, Holford, Bridgwater
Newton Manor, Swanage
Parnham, Beaminster
Chardstock House, Chard
Clavinia, Weymouth
Buxton, Rodwell, Weymouth
Buxton, Rodwell, Weymouth
The Vicarage, West Lulworth
Stalbridge Rectory, Blandford
Wilts and Dorset Banking Company, Southampton
Bodorgan Manor, Bournemouth
Christ's College, Cambridge
Kingsley, Bournemouth West
Worth Matravers Vicarage, Wareham
Frampton Court, Dorchester
Helmsley, Weymouth
Helmsley, Weymouth
Minterne Grange, Parkstone
12, Greenhill, Weymouth
Waverley, Swanage

> Buckland House, Buckland Newton, Dorchester

Bingham's Melcombe, Dorchester
20, Trinity Road, Weymouth
Tarrant Hinton Rectory, Blandford

1888 Solly, Rev. H. S., M.A.
1901 Sotheby, Rev. W. E. H., M.A., R.D.

1896 Sowter, Rev. Canon F. B., M.A.
1900 Stephens, W. L., Esq.
1905 Stephens, J. Thompson, Esq.
1903 Stilwell, H., Esq.
1900 Storer, Colonel, late R.E.
1900 Stopford, Admiral
1883 Stroud, Rev. J., M.A.
1895 Stuart-Gray, Hon. M. G., M.A., F.S.A. Ed., F.G.S. (VicePresident)
1895 Sturdy, Leonard, Esq.
1896 Sturdy, Philip, Esq.
1902 Sturdy, Miss V.

1898 Sturt, W. Neville, Esq.
1902 Sumner, Heywood, Esq.
1898 Suttill, H. S., Esq.
1896 Swift, B. Ryle, Esq., M.A.
1885 Sydenham, David, Esq.
1893 Sykes, E. R., Esq., B.A., F.Z.S.

Bridport
Bere Regis Vicarage, Wareham
Berghmote, Wimborne
West Bay, Bridport
Wanderwell, Bridport
Steepleton Manor, Dorchester
Keavil, Bournemouth
Shroton House, Blandford
Litlesden, Broadstone

Gray House, Dundee, N.B.
Trigon, Wareham
The Wick, Branksome, near Bournemouth
The Wick, Branksome, near Bournemouth
Baytree Farm, Great Horkesley, Colchester
Cuckoo Hill, South Gorley, Fordingbridge, Hants
Pymore, Bridport
Holly Bank, Dorchester
Bournemouth
3, Gray's Inn Place, Gray's Inn, London, W.C.
1889 Symes, G. P., Esq., M.A., B.C.L. Monksdene, Weymouth
1904 Symonds, Arthur G., Esq.
1904 Symonds, Henry, Esq.
1897 Taylor, J. Herbert, Esq.
1901 Telfordsmith, Telford, Esq., M.A., M.D.
о.m. Thompson, Rev. G., M.A.

1898 Troyte-Bullock, Mrs.
1905 Truell, Mrs.
1886 Turner, W., Esq.
o.m. Udal, J. S., Esq., F.S.A.

1897 Usher, Rev. R., M.A., F.L.S.
1890 Usherwood, Rev. Canon, M.A.
1903 Usherwood, Miss E. L.
1905 Van Raalte, Chas., Esq., F.S.A.
1887 Walker, Rev. S. A., M.A.

South Street, Dorchester
30, Bolton Gardens, London, S.W.
Grayrigg, Parkstone

Romansleigh, Wimborne
Highbury, Bodorgan Road, Bournemouth
Silton Lodge, Zeals, Bath
Onslow, Wimborne
42, High Street, Poole
Antigua, Leeward Islands, West Indies
West Knoyle Rectory, Bath
Coombe Keynes, Wareham
Coombe Keynes, Wareham
Brownsea Island, Dorset
Spetisbury Rectory, Blandford
$\mathbf{X X}$.

| 1885 | Ward, Rev. J. H., M.A. | Silverton Rectory, near Exeter |
| :---: | :---: | :---: |
| 1905 | Ward, Samuel, Esq. | 5, Greenhill, Weymouth |
| M | Warre, Rev. Canon F., M.A. | Bemerton, Salisbury |
| 1904 | Warry, Mrs. King | 39, Filey Avenue, Clapton Common, London, N . |
| 1904 | Warry, Wm., Esq. | Westrow, Holwell, Sherborne |
| 0.3. | Watts, Rev. Canon, M.A. | Bemerton, Salisbury |
| 1905 | Watts, Miss | Bemerton, Salisbury |
| 1898 | Waugh, Rev. W. R., F.R.A.S. | Rosslyn Villa, Spring Gardens, Portland |
| 1903 | Weatherby, Miss Katherine | Frome St. Quinton House, Cattistock |
| 1893 | Weaver, Rev. F. W., M.A.,F.S.A. | Milton Vicarage, Evercreech, Somerset |
| 1896 | Webb, E. Doran, Esq., F.S.A. | Gaston, Tisbury, Wilts |
| 1904 | Westcott, Rev. Canon F. B., M.A. | The School House, Sherborne |
| 1895 | Whitby, Joseph, Esq. | Preston, Yeovil |
| 1905 | Whitby, Miss Marjorie | Preston, Yeovil |
| 1904 | Wildman, W. B., Esq., M.A. | The Abbey House, Sherborne |
| 1900 | Wilkinson, Rev. J. H., M.A. | Melcombe Bingham Rectory, Dorchester |
| 1903 | Wilkinson, Percy, Esq. | Sturminster Newton |
| 1892 | Williams, E. W., Esq., B.A. | Herringston, Dorchester |
| 1903 | Williams, Captain Berkeley C. W. | Herringston, Dorchester |
| 1897 | Williams, Miss | Eastwell, Potterne, Devizes, Wilts |
| 1884 | Williams, Robert, Esq., M.P. | Bridehead, Dorchester |
| 1884 | Williams, Mrs. Robert | Bridehead, Dorchester |
| 1905 | Williams, Mrs. M. Scott | Woolland House, Blandford |
| 1905 | Wills, A. W., Esqq, M.P. | 3, Hyde Park Gate, London, S.W. |
| 1898 | Woodhouse, Miss | Chilmore, Ansty, Dorchester |
| 1903 | Woodhouse, Miss Ellen E. | Chilmore, Ansty, Dorchester |
| 1898 | Workman, J. Reece, Esq., C.E. | Catherington, Milbrook, Southampton |
| 1904 | Wright, W. Southey, Esq., B.A., M.R.C.S., L.R.C.P. | Wool, Wareham |
| 1902 | Wright, Rev. Herbert L., B.A. | Church Knowle Rectory, Corfe Castle |
| 1904 | Yates, Robert, Esq. | Milton Abbas, Blandford |
| 1896 | Yeatman, Mrs. | 114, Denbigh Street, London, S.W. |
| 1901 | Yeatman, Miss E. F. | King's Stagg, Sturminster Newton |
| 1893 | Young, E. W., Esq. | Dorchester |

The above list includes the New Members elected up to December 1st, 1905.

Any omissions or errors should be notified to the Hon. Secretary.

## อโew בૂtenters

## Elected since the Publication of the List contained in Vol. XXV.

$$
\begin{array}{ccc}
\text { Proposed Sept. } 13 \text { th, } 1904 \text {; Elected Dec. } 13 \text { th, } 1904 . \\
\text { Member. } & \text { Proposer. }
\end{array}
$$

H. J. Groves, Esq., of Clifton, The Hon. Secretary A. Pope, Esq. Weymouth
The Rev. W. A. Newman, B.A., of R. Bosworth Smith, The Hon. Secretary Winterborne Kingston, Ware- Esq. ham
Captain Gerald Palmes, of Bere The Rev. W. E. H. R. Bosworth Smith, Regis, Wareham Sotheby Esq.
The Rev. C. E. Seaman, M.A., of Canon H. E. Raven- Canon C. H. Mayo Stalbridge Rectory, Dorset hill
Henry Symonds, Esq., of 30, Hon. J. S. Udal The Rev. W. Miles Bolton Gardens, S.W.

Barnes
Mrs. King Warry, of 39, Filey The Hon. Secretary The Rev. W. RhydAvenue, Clapton Common, N .
derch

Proposed Dec. 19th, 1904 ; Elected Feb. 21st, 1905.
Menber. Proposer. Seconder.
T. S. Aldis, Esq., M.A., of Bow- Mrs. F. Reynolds W. L. Stephens, Esq. hayes, Bothenhampton, Bridport
Miss Bromley, of Stinsford Vicar- Rev. S. E. V. Filleul Rev.W. E. H. Sotheby age, Dorchester
F. T. Chater, Esq., B.A., of Rev. L. S. Plowman The Hon. Secretary Ibberton, Blandford
Mrs. Mears, of Milton Abbas Mrs. Barnes ", Grammar School, Blandford
Capt. Hugh Nicholson, of Thorn- G. R. Crickmay, A. Pope, Esq. ford Rectory, Sherborne Esq.
Miss Saunt, of Buxton, Rodwell, Miss E. Simpson W. E. Pearson, Esq. Weymouth
Miss B. V. Saunt, of Buxton, Rodwell, Weymouth

Mrs. Truell, of Onslow, Wimborne
C. Van Raalte, Esq., F.S.A., of
N. Bond, Esq.
," ,"
G. D. Bond, Esq. The Hon. Secretary Brownsea Island, Dorset
Samuel Ward, Esq., of Ingleton, The President W. E. Pearson, Esq. Greenhill, Weymouth

Proposed Feb. 21st, 1905 ; Elected May 9th, 1905.
Member. Proposer. Seconder.

The Worshipful Chancellor C. E. The Hon. Secretary The Rev. W. Miles H. Chadwyck-Healey, K.C., Barnes F.S.A., of 119, Harley-street, London, W.
Henry Duke, Esq., of Clandon, The Rev. J. C. M. Mrs. Mansel-Pleydell Dorchester Mansel-Pleydell
Mrs. Henry Duke, of Clandon
Miss I. W. Evans, of Clandon
Miss A. E. Evans, of Clandon


Miss S. B. J. Forrester, of Bryan-
G. Galpin, Esq.
D. Curme, Esq. ston, Blandford
C. Eric Hambro, Esq., M.P., The Hon. Secretary Dr. T. Fielding of 70, Prince's Gate, London, S.W.

Miss Hilda Pope, of South Court, The President A. Pope, Esq. Dorchester
H. T. Pringle, Esq., M.D., of Dr. T. Telfordsmith W. J. Fletcher, Esq. Ferndown, Wimborne
Mrs. H. T. Pringle, of Ferndown
Mrs. Ramsden, of Bidelake, The Rev. W. F. G. Galpin, Esq. Bridestow, N. Devon - Cornish
F. Raymond, Esq., of Garryowen, C. S. Prideaux, Esq. W. de C. Prideaux, Dorchester Esq.
Wilkinson Sherren, Esq., of The Hon. Secretary C. S. Prideaux, Esq. Helmsley, Weymouth
A. W. Wills, Esq., M.P., of 3, R. Bosworth Smith, Dr. T. Fielding Hyde Park Gate, London, S.W. Esq.

Proposed May 9th and July 4th, 1905; Elected Aud. 8th, 1905.
Member. Proposer. Seconder.
W. Busk, Esq., of Wraxall, T. A. Colfox, Esq. Canon M. Hankey Maiden Newton
Mrs. W. Busk, of Wraxall
"
Cecil Cree, Esq., of Owermoigne Rev. W. Rhydderch Captain J. E. Acland Court, Dorchester
F. R. Heath, Esq., of The Wood- R. Bosworth Smith, E. W. Young, Esq.
lands, Weymouth
Esq.
$\begin{aligned} & \text { Sidney H. S. Heath, Esq., of The Dr. H. Colley March J. A. Sherren, Esq. } \\ & \text { Woodlands, Weymouth }\end{aligned}$

```
Mrs. Morgan, of Haselbury Bryan Rev. G. F. Cart- Rev. L. S. Plowman
```

Rectory, Blandford
The Rev. E. J. Heriz Smith, M.A., of Tarrant Hinton Rectory, Blandford
Mrs. M. Scott Williams, of Woolland House, Blandford
J. T. Stephens, Esq., of Wanderwell, Bridport
Miss Marjorie Whitby, of Preston, Yeovil
The Rev. A. F. J. Danneman, W. Hawkins, Esq. Miss E. C. Wood M.A., of Broadway, Dorchester

Stephen Collins, Esq., L.C.C., of Harborne, St. Anne's Hill, Wandsworth, S.W.
wright
"
-
"
"
W. L. Stephens, Wm, Colfox, Esq.

Esq.
The President Rev. W. Miles Barnes

Homer
F. J. Barnes, Esq. Weston Oliver, Esq.

## Member. <br> Proposer. <br> Seconder.

J. Feacey, Esq., of Dorchester Captain J.E. Acland Dr. H. Colley March

Mrs. A. L. F. Pitt Rivers, of Hin- Lord Eustace Cecil The President ton St. Mary, Sturminster Newton
Miss Watts, of Bemerton, Salis- The Rev. Sub-Dean The Hon. Secretary bury
R. R. Watts
xxiv.

## PUBLICATIONS.

Proceedings of the Dorset Natural History and Antiquarian Field Club. Vols. I.-XXVI. Price 10s. 6d. each volume, post free.
General index to the Proceedings. Vols. I.-XXV. Price 6d., by post $\bar{i} \mathrm{~d}$.
The Church Bells of Dorset. By the Rev. Canon Raven, D.D., F.S.A. Price (in parts, as issued), 6s. 6d., post free.
Church Goods, Dorset, A.D. 1552. By the Rev. W. Miles Barnes. Price (as issued) 2s. 6d., post free.

By the late J. C. Mansel-Pleydell, B.A., F.G.S., F.L.S.
The Flora of Dorset. 2nd Edition. Price 12s.
The Birds of Dorset. Price 5s.
The Mollusca of Dorset. Price 5s.

By the Rev. O. Pickard-Canbridae, M.A., F.R.S., F.Z.S.
Spiders of Dorset. 2 vols. Price 25s., post free.
The British Phalangidea, or Harvest Men. Price 5 s., post free.
British Chernetidea, or False Scorpions. Price 3s., post free.

The Volumes of Proceedings, and the General Index, can be obtained from Captain Elwes, Bossington, Bournemouth; the Church Bells and Church Goods of Dorset, from the Rev. W. Miles Barnes, Monkton Rectory, Dorchester; Mr. Mansel-Pleydell's works, from the Curator of the Dorset County Museum, Dorchester; and the Rev. O. Pickard-Cambridge's works, from the Author, Bloxworth Rectory, Wareham.

## SOCIETIES IN CORRESPONDENCE WITH THE FIELD CLUB.

British Museum.<br>British Museum of Natural History.<br>Britlsh Association.<br>Bristol Naturalists' Society.<br>Devon Association for the Advancement of Science.<br>Hampshire Field Club.<br>Manchester Literary and Philosophic Society.<br>Society of Antiquaries, London.<br>Royal Society of Antiquaries, Ireland.<br>Somerset Archzeological Society.

## Ehe zxoceedings

OF THE

# Doxsef datuxal gisiory \& Intiquaxiant Giteld Efuck 

During the Season 1904-1905.

## WINTER SESSION, 1904-1905.

The First Meeting of the winter session of the Field Club was held in the Reading Room of the Museum on Tuesday, December 13th. The President (Mr. Nelson M. Richardson) took the chair at $\mathbf{1 2 . 4 5}$. The meeting was very well attended.

The Membership.-Six candidates were elected members and ten proposed for membership.

Report of the Delegate to the British Association.A short report, written by Mr. Clement Reid, F.R.S., who attended the meeting of the British Association at Cambridge, was then read:-

As delegate from your Club, I attended the two meetings of the Corresponding Societies at the Cambridge meeting of the British Association.

One of the subjects brought forward for consideration was the "conformity of the publications of the Societies with certain bibliographical requirements." Suggestions were made as to the adoption of a uniform size, proper indexing, some careful editing, descriptive titles for the papers, and correct dates and references both in the volumes and in reprints. Since the meeting I have looked over the last volume of your "Proceedings," and, as I find that none of the complaints made apply to the Dorset Field Club, there is no need to refer further to this debate.

The suggested alteration of the rule by which only Societies that publish can be affiliated to the British Association was also discussed. It was pointed out that certain Societies that publish nothing are doing equally good work in other ways, such as the keeping up of local muserms, and that this rule might compel Societies to publish papers that were not worth printing. This matter, with various other points, was referred to a small committee to be appointed jointly by the Corresponding Societies Committee and the Council of the British Association, the committee to meet from time to time in London.

Complaints were made as to the slight recognition by the British Association of the position and work of the affiliated Societies, and suggestions were made as to a closer union. This matter also was referred to the new committee; but the officers of the British Association at once caused the names of the delegates to appear in the next daily journal in the same way as the committees of the various sections.

It seemed to be generally felt that the delegates have no time to form a coherent body. It was thought that the appointment of the new standing committee would bring the local Societies more into touch with each other and with the British Association, and would give them more influence, especially in view of the two years' interval which practically must result from the next meeting of the British Association taking place in South Africa.

On the motion of Mr. A. Pope, it was agreed that in future the year of election shall precede each name in the list of Members in the Club's "Proceedings."

## Exhibits.

## By Dr. F. D. Lys:

Specimens of Testacalla mangei (shelled slug) from his garden.
The genus Testacella (shell-bearing slugs). About six or seven species are known from France, Italy, Algeria, the Canary Islands, Madeira, the Azores, England, \&cc. In this country two are found, viz. : T. mangei and T. haliotıdea, which are both either somewhat uncommon, or much overlooked through their general resemblance to the common slugs, which have no external shell. Authors seem to agree in thinking that they are probably imported by human agency, but the number of places in which they occur and the manner in which they flourish in our climate at least suggests a doubt if they are not true natives. In Dorset, for instance, they have occurred at Corfe Castle (maugci, "Proc.," V., 136), Blandford (haliotidea, Proc., V., 136), Weymouth (margei), Chickerell (haliotidece), Stalbridge (haliotidea, Science Gossip, 1870, p. 309), and Charminster, and no doubt this list might be much increased if gardeners were instructed to notice any slugs with shells on their backs that they meet with. Fischer (in Manuel de Conchyliologie, p. 4.50), says that in default of worms, the usual food, these slugs will attack others of their own genus as well as other slugs and snails.

Very few eggs are laid, from 6 to 15 , according to the same authority, and these are placed somewhat deep in the earth. They are large, with a calcareous shell, nearly round in mangei and pointed at each end in haliotidea.

Fossil species are known from the Upper Miocene.
IIaliotidea is dull white on the ventral surface, mangei being more or less salmon-pink. The latter is figured in "Proc.," V., 136, but the colouring of the underside is often much fainter than there represented.

Figures of T. mangei, "Proc.," V., 136. Tongue of T. haliotidea, Fischer, Man. de Conch., 449.

## By the President :

A small MS. on vellum, with elaborate full page red and blue initial letters, in the original binding, written about the year 1330, and containing a number of statutes, some in Latin and some in French, mostly of the reign of Edward I. (1272-1307), the earliest being the Statute of Merton of 20 Hen. III. (1236), and the latest the Statute of Northampton of 2 Ed. III. (1328). It begins with Magna Carta as confirmed by Edward I. in $129^{*}$. This appears to have been confirmed afresh by successive kings, as Edward here confirms not the original Magna Carta, but that of his father, Henry III., who, I presume, confirmed that of his father, John. There are altogether 21 separate writings in the book, nearly all statutes, mostly named from the place where the Parliament which passed them was held, such as Statutes of Westminster, Gloucester, Wynton, \&c. There are also Carta de Foresta, the game laws of that period being of great importance, statutes de religiosis and de mercatoribus, and a few containing directions, such as Modus faciendi homagium et fidelitatem. Two deeds of slightly later date were also exhibited for comparison.

## By Mrs. Dean :

A number of interesting and valuable Bibles and Prayer Books of the 16th and 17 th centuries. The principal exhibits were mentioned in the following note read by the President: - Archbishop Laud's Prayer Book (1637-6) was forced on Scotch Presbyterians by Charles I. and Laud. To make it more acceptable, the Scutch translation of the Psalms and Epistles and Gospels was inserted, instead of the English. It was read in the Edinburgh churches on Sunday, July 23rd, 1637, under great difficulties caused by the tumult and rioting of the congregations, followed by much greater and more serious disturbances. The book is a rare one, perhaps partly owing to the detestation in which it was held by the Scotch, who must have destroyed many copies. Hebrew Bible, Paris, 1546. The first complete Hebrew Bible was printed in 1488 at Soncino, in Italy. No Greek Testament was printed until 1516. I exhibit one of 1524, printed at Strasburg; Biblia Vulgata, Paris, 1 n 23 ; Dutch Bible, 1761 ; and Bible and Prayer Book, 1637.

A paper was then read by the Rev. W. Miles Barnes.
I. Some poems in the Dorset Dialect written by the late Rev. W. Barnes, Rector of Came. (Printed.) After the interval for luncheon :

## Exhibits.

By Dr. G. Abbott, F.G.S., Hon. Treasurer of the South-east Union of Scientıfic Societies:

A collection of extraordinary specimens of cellular limestone with photographs.

The Club were much interested in the freaks of limestone as expressed in the remarkable series of pseudo-organic or dis-coid concretions, none of which are organic, although they simulate organisms so closely. The same curious and mysterious process is illustrated in ring coal, the weathering of old mortar, and the banding of flints.

Mr. Hudleston, who had met Dr. Abbott before at the Geological Society, drew special attention to the circumstance that although the peculiar bodies exhibited on this occasion occurred in the Magnesian Limestone, yet that they consisted in their present state almost entirely of carbonate of lime. To the decomposition of the double carbonate (dolomite) must be partly ascribed the concretionary action which had been set up. The difficulty had always been to know what had become of the Magnesia in the original rock, and he suggested its having been removed in the form of the very soluble sulphate known as Epsom Salts, whilst the residual lime carbonate, being released from its primary combinations, proceeded to assume new forms.

## By E. Cunnington, Esq.:

An interesting specimen of old oak carving.
The Rev. W. Miles Barnes pronounced this to be a subsellium from a choir stall of some church.

> By R. Slater, Esq., F.G.S. :

A fine specimen of a fossil turtle (Plerrosternon concinnum).
Found in the Middle Purbecks at Herston, Swanage. He bought it of a quarryman and presented it to the Museum.
The President said that these turtles were getting very rare. This one was a handsome present to the Dorset Museum, which even before its acquisition contained the best series of fossil trrtles outside the British Museum.

Mr. Hudleston observed that Swanage was famous for its turtles and crocodiles, and this was an extremely interesting specimen of the former.

## By L. B. Clarence, Esq. :

A box-wood implement, found about a year ago under the roof of Coaxden, Chardstock. The initials upon it are those of one of the Cogans, a family of small farmers in the neighbourhood, probably a son of R. Cogan, who was manager of the small Coaxden Estate for its owner, Sir Simonds D'Ewes, at one time. About the time of Sir S. D'Ewes' death, or soon afterwards, the Cogans acquired Coaxden by purchase.

The implement has been examined at the British Museum and also at the Guildhall Museum, London, but as yet no one has satisfactorily explained its use or object.

Mr. Pope suggested that it was used in a butcher's business for skinning animals-something like the old thumb-scraper.

Dr. Crallan expressed the conviction that it was a shoe-lift.

## The Mansel-Pleydell Memorial Fund.

## Munificent Gift of Lord Eustace Cecil.

The President read the following letter from the exPresident, Lord Eustace Cecil, who, he was sorry, could not be with them that day :-
"Lytchett Heath, Poole, Desember 13th. My dear Mr. Nelson M. Richardson, I grieve to say that, contrary to my expectations yesterday, I do not feel sufficiently recovered from my recent attack of illness to justify me in attending our Club meeting to-day. I cannot tell you what a great disappointment it is to me, and I can only ask you kindly to express to all the Members present my very sincere regret that I am unable to fulfil the engagement I had been so long looking forward to. When the subject of the Mansel-Pleydell Memorial Fund was first mooted two years ago, I think I am not mistaken in saying that there was a general desire to hand down to posterity the memory of our late President in the manner most agreeable to himself and to his family. A sum of money was collected among the Members of the Club and other friends throughout the country, and, after defraying the expense of executing a copy of his portrait, there remained a balance of $£ 83$, and the question then arose-what should be done with the surplus of the money? And for a time it was decided to allow the fund to accumulate. When I succeeded as President-after some considerationit seemed to me that the best mode of applying the surplus was to increase the great utility of the Club in some permanent form ; and, failing any better. scheme, I made up my mind to suggest the appropriation of the balance, strengthened by such an additional sum as seemed to me necessary for the purpose, to the further encouragement of scientific knowledge in this county. I have always, I hope, fully recognised the advantages of this Club in the past, holding out as it does the attraction of summer meetings with the gathering together of Members, their friends and families, anxious to know a little more of the beautiful old county they live in, and the antiquities with which they are surrounded ; and, also, I must not pass by our winter debates, replete with quaint knowledge and curious discoveries. But I am still more ambitious as to the future. Though I am not one of those who think that our race is degenerating, or our workmen falling off in skill and workmanship, still none of us can be blind to
the fact that competition is increasing abroad, and the struggle for superiority is becoming more and more severe. We have had several warnings during the last few years. The Prince of Wales, it will be remembered, on his return from a voyage round the world, told us we must 'wake up,' and, without going into controversial questions, our trade returns, year by year, are not what we have a right to expect them to be, looking at the experience of former years. But I will not detain you longer, except to say that, if we are to think Imperially in the future, we must commence by thinking scientifically, and that is why I should wish our Club to do its best to promote so desirable an object by any beginning, however humble : and, in the hope that it will be willing to adopt the scheme I now propose, I beg you to believe me, very sincerely yours, Eustace G. Cecil."

Then came the following memorandum of the scheme:-
"Lytchett Heath, Poole, December 13th, 1904. The surplus fund of the Mansel-Pleydell Memorial Fund has been invested in £100 New S: Wales Government 3 per cent. Stock. It is now proposed to add to that fund a further sum of $£ 300$ Foreign, American, and General Trust Company deferred stock, producing 5 per cent. per annum, taking the average of the last twenty years, say £15. With this sum, added to £3 per annum on the New S. Wales Government stock, a total of $£ 18$ would be obtained, with which it is proposed that two silver medals should be given yearly for the best scientific papers-at an expense of $£ 5$ each-the surplus, after defraying the small cost of the medals (say 5s. 6d.), being laid out in books or instruments, at the option of the successful candidate. A further sum of £5 yearly to be reserved for expenses and fees connected with the examination papers, postage, \&c., leaving, say, $£ 3$ over each year to accumulate. The first medal to be called the 'Mansel-Pleydell' medal, and to be given for the best paper on natural history and archæology, especially the natural history of Dorset and its antiquities, prehistoric records, and ethnology, and to be open to Members of the Dorset Field Club only of both sexes. The second medal, to be called the 'Cecil' medal, for the best paper on chemistry or electricity, as applied to healing or medicinal purposes, for domestic and farm uses, or motor power generally, and to be open to eandidates of both sexes who have been born in the county of Dorset, or who have resided there for not less than one year. The age of candidates at first to be fixed at from 18 to 30, power being reserved to a committee of President and two Vice-Presidents (with power to add to their number) to increase or reduce the limit of age. Schoolmasters or teachers, in their active exercise of their professions, not to be eligible. Examinations to be held yearly under the direction of the committee mentioned above, with such extra assistance as they may require or decide upon, discretion being left to them to fix the subjects for examination, under the proposed heads, and the limit of age, and to carry out such other changes as from time to time may seem desirable, bearing in mind the main objects of the original bequest. Should, in their opinion, the examination papers be judged in any one year to be not of sufficient merit, or not deserving of reward, then no medals are
to be given that year, and the funds are to be allowed to accumulate for the general objects of the Trust. In the event of further money being subscribed, two or more annual scholarships to be instituted of not less than $£ 10$ each yearly, for one or more years, and power given to the trustees and committee to merge the sum of $£ 18$ a year already spoken of into a common fund, provided always that sufficient money be first put aside yearly to pay for the cost of the examinations and the medals, \&c.-Eustace G. Cecil."

The President expressed warm appreciation of Lord Eustace Cecil's generosity and public spirit. His name and that of Mr. J. C. Mansel-Pleydell would be handed down to posterity as those of the first two Presidents of the Club, who had done so much to further the interests of science in Dorset, both through the agency of the Field Club and otherwise. He moved the following resolution :-

[^0]
## Captain Elwes seconded.

## The Rev. J. C. M. Mansel-Pleydell said:

He wished to state how deeply sensible his mother and all the members of his family were of that generous gift of Lord Eustace Cecil's towards making really workable the scheme for his dear father's memorial. Some time ago the committee formulated some such scheme as this to encourage the study of natural science, but their difficulty was that they had not enough funds to carry it out. Now, however, Lord Eustace Cecil's generous gift had made it feasible. He was glad that Lord Eustace would be associated with his father in the memorial, for they were warm friends and admirers, and it was always a great wish of his father that Lord Eustace should take up the work of the Club after him, knowing that he would carry it on in his spirit and mind.

The resolution was carried unanimously.
The President said that Lord Eustace wished three trustees to be appointed-himself, as President of the Club, and two Vice-Presidents, and had suggested Captain Elwes and the Rev. J. C. M. Mansel-Pleydell, with power to add to their number.

The Rev. W. Miles Barnes seconded, and these three were appointed. It was decided to bank with the Wilts and Dorset Bank. The appointment of a solicitor to draw the trust deed was left to the trustees.

Mr. Evelyn Cecil, M.P., who rose to speak at the President's invitation as the representative of his father, said:
He should be pleased to tell his father of the unanimity and enthusiasm with which the resolution had been passed and the scheme accepted. His father would, he assured them, be very gratified that the Club entered so thoroughly into the scheme, and intended to carry it out in all particulars. He spoke of his father's devotion to the Club and all its concerns, and his earnest desire to increase its membership, promote its success, enhance its influence, and make it a real incentive to scientific research. He paid a fine tribute to the character and attainments of the late Mr. Mansel-Pleydell, and, advocating the pursuit of scientific investigation in all its varied branches, made some thoughtful observations upon the rapprochement of recent years between science and religion and the gradual disappearance of the old estrangement and antipathy between the exponents of both. Exhibiting the first two medals, he explained that his father had always been interested in chemistry and electricity. It was a family pursuit, for his father's brother, the late Lord Salisbury, used to devote his spare moments to it. He hoped that the prizes would encourage the steady study of the subjects in the county.
The Rev. J. C. M. Manskl-Plexdeli added that not only had Lord Eustace Cecil given $£ 300$ of Stock, but he had also at his own charges had the dies cut for the medals-a very expensive item.

The President read out the inscriptions on the medals. The first medal bears on the obverse a full-face portrait of the late Mr. Mansel-Pleydell, with the inscription "For Excellence in Natural History and Archæology. Mansel-Pleydell." The reverse bears the armorial device of Dorset, with the words "Dorset Natural History and Antiquarian Field Club." In the second medal, which presented an admirable profile of Lord Eustace Cecil, the inscription was varied to "For Excellence in Chemistry and Electricity. Cecil." Mr. Richardson added that it was Lord Eustace Cecil's wish to keep for himself the first Cecil medal, and that he should hand the first ManselPleydell medal to Mr. J. C. M. Mansel-Pleydell. This he did amid applause. The President added they had listened with interest to Mr. Cecil's remarks, and they hoped that he would
convey to his father their appreciation of his great kindness and generosity.

## Exhibit.

By R. Slater, Esq. :

An old MS. copy of the Journal of the House of Commons for the years 1688-9.
Mr. Slater believed that this MS. was part of the original Journal of the House of Commons, but the original Journal is still in the library of the House. The MS. is probably part of one of the many copies which have been made of the Journal. Mr. Slater read some interesting portions of the MS.; but, as the complete Journal is in print and accessible to students, we have not spared the space to reproduce them.
"The Naturalist in Australia."-This was the subject of an instructive and entertaining paper read by the Rev. C. W. H. Dicker, and illustrated profusely with drawings and botanical specimens. The paper is printed in this volume.

A Famous Local Lawsuit.-Mr. Alfred Pope exhibited the volume of original notes on the memorable action tried by Mr. Justice Littledale and a special jury of seven at the Dorset Summer Assize at Dorchester on July 17th, 1826-the action brought by the Rev. George Wood, Rector of Holy Trinity, against the Rev. John Morton Colson, Rector of St. Peter's, to obtain possession of the old glebe field between Charles Street and Acland Road. The book contained the following extract from the Dorset County Chronicle and Somersetshire Gazette of July 27 th, 1826 , in which an account of the trial was published:-
"If the verdict be not disturbed, Mr. Wood, as Rector of Holy Trinity, as well as all future rectors of that church, will be entitled not only to the glebe land in question, but to the living of St. Peter's as belonging to that of Trinity, to which latter church, with St. Peter's as a chapel annexed to it (according to the present decision), the Feoffees of the School and Almshouses have the right of presentation; and the presentation by the King of the defendant Mr. Colson to St. Peter's becomes a nullity."

The meeting ended shortly before five o'clock.

## WINTER SESSION.

The Second Meeting of the winter session was held at the Dorset County Museum on Tuesday, February 21 st, at $\mathbf{1 2 . 4 5}$.

The Membership.-Ten candidates nominated at the last meeting were elected and 14 nominated.

Captain Elwes gave notice of his intention to propose at the next meeting that the Club membership be limited to 400.

## A Lunar Halo in the Form of a Cross.

The President read the following interesting note on a lunar phenomenon:-

About 8 p.m. on September 28th, 1904, Mrs. Richardson called my attention to the fact that broad vertical and horizontal bands of light were proceeding from the moon's disc, which was somewhat less than a complete circle, full moon having taken place on September 24th at 5.50 p.m. The bands kept constantly altering both in length and breadth, but were always somewhat narrower than the moon's disc, and generally from two to three times the diameter of the moon in length. In intensity they were quite as bright as any halo that I have ever seen, if not more so, and of a silvery colour. They had the wavy and shooting motion of an aurora, and always retained their vertical and horizontal positions, forming a beautiful cross of light with the moon in the centre. The phenomenon continued much the same for more than an hour, after which it began to fade away, and by about 10 p.m. had completely disappeared. There were no clouds near the moon at the time. I have consulted our distinguished astronomer, Rev. W. R. Waugh, and though, as he says, it is only an atmospheric phenomenon, and therefore hardly comes into the domain of astronomy proper, he has consented to say a few words on the subject. Possibly the historic cross seen by Constantine in the heavens was of a similar nature, though that is said to have been above the sun and to have borne an inscription, and there have, I believe, been other occasions on which a fairy cross is said to have been seen in the sky; but I understand that the present lunar cross is not at all a common occurrence.

The Rev. W. R. Waugh, the Club's esteemed astronomer, contributed the following instructive note on the subject:-
On September 28th, 1904, Mrs. Richardson saw a brilliant and beautiful lunar halo in form of a cross surrounding the moon, of a pearly-white hue. It remained visible from 8 p.m. to about 10 p.m. The moon was gibbous at the time, being about four days after the full. The angle of division between the dark and illuminated portion of the lunar surface standing at about $30^{\circ}$ with the


LUNAR CROSS SEEN BY MR. \& MRS. N. M. RICHARDSON AT CHICKERELL, SEPT. 28, 1904.
moon's axis, the general appearance was most striking and beautiful, the light of the cross being nearly equal to that of the lunar surface. It need hardly be said that the phenomenon was not astronomical, being, in fact, wholly atmospherical, and that it arose from the reflection of the lunar light from the particles of vapour, which must have been very dense at the time. Why the appearance took the form of a cross is not clear, and even at the time would not have been disclosed. In that respect it seems a meteorological mystery.

Mr. Whitmell, B.A., one of His Majesty's School Inspectors, has skilfully devoted much attention to the origin of lunar halos. He says that they are due to the reflection of lunar lights from the particles of ice in the upper regions of the air, and, when there is colouring, it is due to the analysis of the light, on the same principle as the rainbow. This explanation commends itself to all investigators. He also says there are two principal halos, the smaller distant $22^{\circ}$ from the light-giving orb, and the larger distant $46^{\circ}$; both have their outer borders green, their inner red, and both have the sun or moon for their centre. These remarks already associate mock suns and moons, rainbows, and coloured arcs with halos, forms being modified by atmospheric conditions. It may be noted that the cruciform aspect is very vare, and may be produced in a similar manner as the striking sun-pillar, which also is seldom seen.

The following items are taken from an old encyclopædia of date 1813. They are curious, if not valuable, additions to the literature of the subject. The writer states that Huygens supposed that writers on the theme generally believe that halos or circles, more or less coloured, were formed by minute grains of hail. Huygens fully endorsed this theory, and illustrates it by drawings of the formation. Huygens was a very careful observer of natural phenomena, and his ideas and observations are deserving of all credit. Newton's theory of halos, as given in his work on optics, \&c., favours the theory that halos are caused by the refraction and reflection of light from the sun or moon. He says the more equal the globules of ice or vapour may be, the more crowns of colour and the more lively the tints. There are several ways of exhibiting these phenomena. The flame of a candle placed in the midst of a steam in cold weather, or placed at a distance from a window which has been breathed upon, will also show slight coloured halos. Also a quantity of water thrown up against the sun or moon will show halos-a kind of mock rainbow. Musschenbiok, a German author, observes that, when the windows of his room were covered with a thin plate of ice, the moon seen through it was surrounded with a variously coloured halo, and, on opening the window, the apparition was entirely gone. Of course, all these experiments must be patiently and perseveringly performed, and may be almost endlessly diversified, according to the knowledge and skill of the performers.

## Exhibits.

## By the President :

A series of deeds dating from the reign of James I., with a few of earlier date, from Richard II.

The chief interest in the deeds exhibited lies perhaps in the series dating from Charles II. to Victoria, containing portraits of the reigning Sovereigns. I have only here one specimen of each King and Queen (except George II., of which there are two), but there exist other varieties of most of them. I believe that Charles II. was the first Sovereign who was so pourtrayed, but I do not know whether our present King's likeness has yet been used in this way. It will be noticed that the ornamental part of the deed is printed from more than one copper plate. The portrait is separate from its border containing the initial letter, and the other portions of the elaborate bordering to the deed are separate, so that varieties of bordering would probably occur with the same portrait. The two portraits of William III.-the one with_Mary and the other alone-are the same, but the background present in the first print has been erased in the second. I also exhibit a series of highly ornamental deeds from James I. to Richard Cromwell, one of each reign, which are not printed, but are wonderful specimens of penmanship. They are mostly also ornamented with what looks like lead pencil, or perhaps chalk, softened off with a stump. They show the gradual development of ornamentation, and probably the pen was not much used for this purpose after the reign of Charles II., when the whole was printed, though the thick letters seem to be still filled in with a brush. It will be noticed that of the two deeds in Charles II.'s reign, both with painted ornaments, the earlier one ( 14 Charles II.) is the latest deed which has some of the stump ornamentation added. It also contains the Royal Arms in the place occupied in the later one ( 23 Charles II.) by the portrait. The printed side borders occur first in the reign of Geerge I. Of deeds earlier than James I. I have but few that are of interest from an ornamental point of view. I have brought one of Richard II. (1399), one of Edward IV. (1480), in English, not Latin, as usual, both with ornamental initials, and one of Henry VI. (1423), with several of the letters of the first line, including both small and capital, curiously elongated and ornamented. The later deeds are mostly difficult to read until we come to George II., when they are in English and in ordinary writing, and, as I have merely exhubited them on account of their ornamental borders and portraits, I will say nothing about their contents, which are not, I think, of any special interest, mostly correspouding to our present conveyances of land. All my deeds between Charles I. and Charles II. are in English, but I do not know if this was the invariable custom during this short period.

## By Mrs. Dean :

Some deeds of about the date of the restoration, relating to property at East Stour, chiefly known as the residence of Henry Fielding, and she also showed a seal pertaining to Shaftesbury.

Mr. Alfred Pope said it was always the custom when deeds were attested in the past to utter the formula " In witness whereof I have hereunto set my hand and seal, and within the seal I have
placed a true coin of the realm." That coin was generally half a guinea; and the fact explained why the seals of these old deeds were seldom to be found. The seal and the gold had gone.

## By the Rev. F. W. Galpin :

A model of a humstrum and an ancient rebec.
Halliwell's Dictionary of archaic and provincial words thus explains the instrument:-
"Humstrum, a musical instrument out of tune or rudely constructed ; a Jew's harp."

In 1763 Bonnell Thornton published as a burlesque:-
"An ode on S. Cecilia's Day adapted to the antient British musick, viz.: The salt box, the Jew's harp, the marrow bones and cleaver, the humstrum, or hurdy-gurdy, \&c."

In his overture, or preface, he thus writes: "I am sorry I can give no certain account of these incomparable instruments, the salt box and the humstrum, or hurdy-gurdy. But it is reasonable to conclude that the first was usually performed on at festivals and the other at funerals, or on serious occasions."

In the ode the instrument is referred to in these words:-

## Recitative.

Cease lighter numbers; hither bring
The undulating string
Stretch'd out, and to the tumid bladder
In amity harmonious bound.
Then deeper swell the notes and sadder,
And let the hoarse Base slowly solemn sound.

> Air.

With dead dull doleful heavy hums, With mournful moans and grievous groans, The sober hurdy-gurdy * thrums.

It is evident from this that Thornton knew little-or cared to know little-about the humstrum, for he confuses it with the

[^1]hurdy-gurdy (the vielle, or organistrum), and his description agrees rather with a one-stringed rustic bass viol known as the Bum-bass, or Basse de Flandre, and still used in Germany.

Ritson, at the end of the 18 th century in his "Observations on the Minstrels," writes:-
"It is conceived that a few individuals resembling the character of the old minstrels might have been lately and may possibly be still found, in some of the least polished or less frequented parts of the kingdom. . . . Within two years one was to be seen in the streets of London; he played on an instrument of the rudest construction, which he, properly enough, called a humstrum, and chanted (amongst others) the old ballad of Lord Thomas and Fair Ellinor."

The locus classicus for the humstrum is Barnes' Dorset Poems, Collection III., where in the original edition the poem, "The Humstrum," is accompanied by a woodcut of the instrument.

The humstrum appears to be a somewhat degenerate form of the rebec, a popular three-stringed fiddle in use in the Middle Ages, and derived through Moorish and Arabic influence from the East. In Germany the instrument was called the "Geige," and is said to have given its name to the dance known as the jig. It was generally used by the wandering minstrels. In the humstrum the labour required for excavating the hollow body of the instrument is dispensed with, and a tin canister (perhaps in early times a bladder) takes its place. The strings, four in number, are of wire, and in the present instance the bagpipe or hurdy-gurdy tuning has been adopted. A rude melody can be played on the uppermost string by a slight pressure of the fingers, though there is no finger-board. The bridge is formed by the rounded side of the tin, across which the strings are stretched. The tone is curious and buzzy.

## By thif President :

[^2]"Dr. Crallan most kindly sent me four eggs out of several laid by his captured moth. Of these three hatched, one larva dying when about half grown. The other two duly pupated, and were placed in moss in a greenhouse, where the one exhibited emerged on January 7th, 1905. The other pupa was then healthy, but died very shortly afterwards. I believe that no other members of this brood attained the perfect state, with the exception of three bred by Mr. Eustace Bankes. My larve were fed upon dock, chiefly on plants growing in pots out of doors. The moth is a very rare British species, and specimens captured are, I be'ieve, always immigrants, and there is no record that I know of its surviving our winters. In 1904 an unusual number of specimens were taken at Bournemouth and elsewhere. Dr. Crallan's moth laid fifty eggs, hatched June 16th. All his larvæ died of mould."

## By Mr. C. S. Prideaux :

A cinerary urn, ploughed up on the farm of Mr. W. S. Foot, of Bincombe. It was full of calcined bones and badly broken.

He had tried to repair it. The large flat stone which he produced was placed on top of the urn. The depressed barrow where the urn was found was on the south side of Came Wood, and there were two or three other barrows there which were nearly ploughed down level, so that he was expecting almost at any time to hear that another urn had been found. The whole of the ground all the way round was full of flint chips, and he picked up several excellent scrapers. Mr. Gray, of Taunton Castle, had told him that it was a very early form of urn.

Mr. F. J. Barnes : The urn appears to be identical with those we found at Portland some time ago. About 160 were uncovered in the course of two or three weeks, and half the barrows are still unopened.

In this case, as in others, the covering of flints which protected the interment was probably taken away and sold for road metal, and the barrow, being thus deprived of its protection, fell an easy victim to the plough.

## By the Rev. S. E. V. Filleul:

A silver paten cover, dated 1573, of an Elizabethan chalice, which has disappeared, and a pewter alms plate, dated 1682.

Neither of the two pieces was recorded in "Nightingale's Church Plate of Dorset" (Ed. 1889). Mr. Filleul had written : -
"When I came to Dorchester the tradition was that the old silver paten exhibited had been found buried near the altar of the old church, removed in 1845. I wrote to Mr. Alfred Spicer, now of Bishop's Caundle, an old churchwarden at that time, to know if this was the true account of it. He replied that
he had found it in an old box of rubbish in the tool-house in the corner of the churchyard about the year 1860 . It was then perfectly black, but he had it cleaned by a silversmith, and restored it to the church. It bears the date engraved 15\%3. It is recorded that Mrs. George Galpin, wife of a churchwarden, collected money to pay for the new plate, somewhere about the time of the church re-building (1845). Probably the old chalice, on which this paten may have fitted, was sold or given in part exchange, and thus an Elizabethan chalice may have been lost to the church, actually in the memory of the living. The pewter plate was found somewhere by the clerk in the year 1895. It was much out of shape and the rim almost cracked off. I had it repaired and electroplated, and now use it for an alms dish. The clerk remembers that there were formerly two of them. If any collector has the other one, we should be most grateful to have it again."

The following papers were then read:-
I. "New and Rare British Arachnida," by the Rev. O. PickardCambridge. (Printed.)

And after luncheon
2. "Old Dorset Village Choirs and Bands," by the Rev. F. W. Galpin. (Printed.)

On the conclusion of the paper, Mr. Thomas Hardy asked : Can Mr. Galpin account for the curious fact of their always playing the tenor on a treble instrument an octave higher? I have known many of the old bands play it in that way.

Mr. Galpin, in reply, said : It was undoubtedly a survival of the earlier period, when the melody, or plainsong, was in the tenor, and the treble and alto parts wove themselves in a more or less harmonious way above it; then when the melody was transferred to the treble, the true tenor was still played on a treble instrument.
3. "On Bingham's Melcombe Manor House ; Its Surroundings, Folk Lore, Wild Animals, \&c.," by Mr. Bosworth Smith.
4. "Old Dorset Songs and Doggerel Rhymes," by the Hon. Secretary. (To be printed.)

The meeting closed shortly before five o'clock.
Since the meeting Mr. A. M. Luckham, of Parkstone, writing in the Dorset County Chronicle, gives the following interesting particulars of choirs and bands in Broadway and adjoining parishes:-
" Very many memories have been revived in my mind by the notice in last week's Dorset County Chronicle of Mr. Galpin's paper on parish choirs and bands. I have before me a book used by the choirs of Came and Radipole. It dates from 1504, and contains a large number of Psalm tunes and anthems in manuscript, and in it the tenor and the alto parts are all written in the treble clef. In fact, neither the tenor nor the alto clefs are used throughout the book. Many of the tunes are very elaborate, and fugal passages abound. It is new to me to learn that there had ever been any objection to the use of the serpent in the Church services. The band of Broadwey Church contained two clarionets, a serpent, and a bass viol, for some time also a key-bugle, and I think serpents were also used in some neighbouring churches. It has been a great pleasure to me in later years to see the serpent used in the orchestra of the London Sacred Harmonic Society, and to fancy that I could distinguish its special tone in the "Messiah " music. What we call the alto part was usually, I think, sung by a male counter-tenor in a falsetto voice, and I well remember hearing a servant-maid say in describing the anthem which had been sung, "Well, I do like to hear Bill Winzar when he d'sing 'womanish'"_rather a good way of putting it. Of the Radipole choir my father used to tell an amusing tale. It will be best appreciated by those who have had experience with hounds. The bass viol was played by an old blacksmith named Puckett, who had become almost stone deaf, but by putting his ear close to his instrument he could hear its tones. In an elaborate fugal passage both band aud voices got hopelessly adrift and broke down, the bass viol going on alone. Then came a voice heard all over the church saying "Hark to Puckett," and then the choir all came in in full cry. I hope some of your readers may find interest in these memories of sixty to seventy years ago."
xlii.

## THE ANNUAL GENERAL MEETING.

The Annual General Meeting of the Club was held on Tuesday, May 9th, in the Reading Room of the Museum. The President, Mr. N. M. Richardson, took the chair at 12.45 .

The Membership.-Fourteen candidates proposed at the last meeting were elected Members, and ten candidates for membership were proposed for election at the next meeting.

## Exhibits.

## By the President :

An orchis, found by Mr. Brunsden, pier-master, of Swanage, and sent on his behalf by Miss Clapcott. Mr. Brunsden stated that they were plentiful in one particular spot in that locality.

Mr. Richardson, when exhibiting the specimen, added the following note:"This appears from the glabrous petals to be Ophrys aranifera, Huds. var. a, gemina. This form seems to be new to Dorset, var. B. fucifera, Smith, being the only form recorded in Mr. Mansel-Pleydell's 'Flora of Dorset.' The naming of gemuina is confirmed by Mr. W. Bowles Barrett, of Weymouth, who, however, points out that the two forms are not distinguished in Watson's Topographical Bot., Ed. 2, nor in Brébisson's Flore de la Normandie, or Lloyd's Flore de l' Ouest de la France, and that Townsend, in 'Flora of Hampshire,' remarks that fucifera can hardly be separated from the type. The Rev. E. F. Linton writes: 'Some of the best Kent observers have given their matured opinions that Ophrys aranifera and 0 . fucifera, Sim., are not separable, being only distinguished by the pubescence on the lateral petals, and every stage of variation is to be found on the same down (see Flora of Kent, Eng. Bot, Ed. 3, \&c.), where both forms occur, and the tendency at present is to drop fucifera, even as a variety, though it was published by Smith as a species, more suo, and merge it in aranifera as a mere form or state. The Dorset form, having generally pubescent petals, has been usually called fucifera. My few specimens all have some pubescence, much or little, not all alike." "

## By Dr. Colley March:

An nncient token given to him by Pasteur E. Moutarde, of the Reformed Church of Saujon, France.

To this day, he said, a curious custom prevailed. When the communicant came to the altar he handed to the priest or pastor a small coin of little value, and why he did so he did not know. The fact was that it was a curious traditional survival of the times of persecution, when it was necessary for every communicant to give some secret sign to the celebrant that he was not an intruder or spy.

The President then read his address, on the conclusion of which Captain Elwes moved a vote of thanks. Dr. Colley March, in seconding it, observed
throughout the address they had hstened to they saw the careful painstaking of an entomologist, and they were glad to recognise the number of instances of original observation. If it had given them pleasure to listen to the address, how much more pleasure would they have in reading it, when they could digest the facts that to-day they had only hurriedly heard.

The Hon. Treasurer then presented the balance sheet for the past year, which was a very satisfactory one. At the last Annual Meeting he had the pleasure of announcing to the Club that they had a reserve fund of $£ \mathrm{roo}$ in Consols. He was glad now to be able to announce that the sum had risen considerably. The Club was indebted to Mr. Eaton for his liberal contribution of $£ 8$ towards the expense of printing the rainfall returns and to Mr. H. E. Huntley for ios. towards the Plate Fund.

Mr. Alfred Pope, in moving the adoption of the report, complimented the Hon. Treasurer on the successful result of his efforts.

Mr. F. J. Barnes seconded the adoption of the report, and it was carried unanimously.

The President expressed the thanks of the Club to Messrs. Eaton and Huntley for their contributions, and congratulated Captain Elwes on his great success as Hon. Treasurer.

The meeting then adjourned for luncheon, and was resumed at 2.45 , when the Hon. Secretary presented his report, prefacing it with a statement of receipts and expenditure in connection with the summer meetings:-

[^3]this past year there is nothing brilliant to report in the Secretary's department. Partly through the Club's instrumentality, the marriage registers of Dorset are to be published, gradually, in Phillimore's well-known county series. And perhaps during the coming year arrangements may be made for affiliating the minor natural history and antiquarian societies of Dorset to the central County Field Club. The members of the Executive have been revolving the subject in their minds for several months, but, of course, the whole matter would be submitted to the Members of the Field Club before any real action is taken; and I only mention the subject now as some premature, yet pleasing, paragraphs bearing thereon have appeared in some of the Dorset newspapers. To unify the natural history and antiquarian work which is being done in the county seems to me to be a thing much to be desired, provided that it can be done without amalgamating the several clubs. I should also like to call attention to the sixpenny pamphlet which the Club has published this year. The Assistant Secretary has compiled a list of the past and present officers of the Club, its Members, its rules, its publications, and a general index of the papers, \&c., published in its twenty-five volumes of 'Proceedings,' and every Member should secure a copy ere it is out of print."

The President expressed the Club's great appreciation of Mr. Pentin's services during the year. They had good reason to be thankful that they were so fortunate as to obtain so excellent a successor to their late Secretary, Dr. Colley March.

Captain Elwes then, in accordance with the notice he had previously given, proposed that the Club membership should be limited to 400 . The proposition was seconded by Dr. Crallan, but, as it failed to obtain the support of three-fourths of the Members present at the meeting, as required under Rule 21, the motion was lost.

The Hon. Editor's report foilowed :-
"The new volume is making progress. There are already in type:-By the Hon. Secretary, a paper on 'Liscombe Chapel' ; articles, by Mr. C. S. Prideaux and Mr. Gray, on 'The Barrow Excavations at Martinstown"; on 'Spiders,' by Mr. Cambridge ; on 'Darset Plants,' by Mr. Linton. The latter will be an appendix to Mr. Mansel-Pleydell's valuable work on the subiect. There will follow :-'The Naturalist in Australia,' by the Rev. C. W. H. Dicker ; a continuation, concluding the list, of 'Church Goods, 1552 '; and I hope to receive Canon Raven's monograph on 'The Church Bells of Dorset' in time for this year's volume. There will also be 'Poems in the Dorset Dialect,' by the late Rev. W. Barnes ; and a paper on 'The Cross-legged Effigies in Dorset,' by Mr. Sidney Heath ; and a note by Rev. H. S. Solly, on 'The Landslip at Lyme Regis.' Club notes will be continued, and the 'Rainfall Returns' and 'First Appearances,' as usual. A new feature in the book will be a series of the Chartularies
of Dorset Abbeys, which will be commenced in this volume and continued from year to year. The first will relate to the Abbey of Middleton (Milton). The chartulary of this abbey, which was in existence in Tanner's days, has since disappeared; it is supposed to have been lost when the public records were kept in the stable at Carlton Gardens. An enquiry at the Record Office has confirmed the report of its loss. But Tanner, who mentioned it, made some extracts from it, which are now, with other manuscripts of his, in the Borlleian Library. I have obtained photographic facsimiles of these, from which transcripts have been made for the printers, and Mr. B. Fossett Lock has kindly promised a translation of them. The next to be printed will be the Charters of Cerne Abbey. Mr. Alfred Rogers, sub-librarian of the University Library, Cambridge, has kindly copied these, and I hope Mr. B. Fossett Lock will give us a translation of them. They were mentioned by Mr. Doran Webb in his article on the Book of Cerne in a former volume of the transactions. They were then on loose leaves of parchment, tied up with the Book of Cerne; but whether perfect and complete or not, I have not yet heard. The volume will be an interesting one, not inferior to the last in the quality of its contents, nor perhaps in bulk, and it will be well illustrated."

Railway Facilities.-The Hon. Secretary stated that the British Association, to which the Club was affiliated, had invited them to join with other affiliated bodies in asking the railway companies of England for concessions for Members travelling on antiquarian and scientific business. This was agreed to.

Election of Officers.-The President, Hon. Secretary, Hon. Treasurer, and Hon. Editor were re-elected, and the Hon. Secretary re-nominated Mr. H. Pouncy as Assistant Secretary.

In accordance with Rule III., the President nominated the following gentlemen for re-election as Vice-Presidents:-Lord Eustace Cecil, F.R.G.S., Mr. W. H. Hudleston, M.A., F.R.S., F.L.S., F.G.S., the Rev. J. C. M. Mansel-Pleydell, M.A., Dr. H. Colley March, F.S.A., the Rev. O. Pickard-Cambridge, M.A., F.R.S., Mr. R. Bosworth Smith, M.A., the Hon. Morton G. Stuart-Gray, M.A., F.G.S., and the Rev. W. Miles Barnes, B.A.

The British Association.-The Hon. Secretary observed that the British Association appeared to take it for granted that the Club would not send a delegate to the meeting of the Association in South Africa this year, but they had invited them to appoint a delegate to attend certain meetings in London. He proposed Mr. Ernest Sykes, President of the Malacological

Society, and one of their most distinguished Members. The President seconded. It was carried.

The Summer Meetings.-The next business was the choice of the places of field meetings to be held during the ensuing summer. Many suggestions of localities had been received by the Secretary on forms sent out for the purpose, and these were put to the vote, with the result that Bradford-on-Avon and Bath (two days); Brownsea Island; and Langton Herring, Fleet, and the Chesil Beach were selected for the outdoor meetings.

An interesting paper was then read by Captain Acland on "The Saxon Origin of Studland Church." Captain Acland included in his paper some notes by Mr. A. M. Luckham, churchwarden of Studland 30 years ago. These observations by an observant man, who had unusual opportunities for studying the details of the work, are of much value, shewing as they do the discoveries that were made in the course of it, and some of the changes carried out in the course of the restoration.

He says: "It will be noticed that in the thick and thin course rubble work of the church not a single quarried stone appears ; a large proportion of the stones are water worn, and have been broken in two, so as to get one flat surface outward, and other stones are rough flints, or hard sandstone, such as may be picked up even now on the seashore, or in the fields. Every stone of the worked 'ashlar' has been added to an existing building, and mortar of a different colour and better quality has been used in fixing them. The hewn stones of the quoins throughout the building do not 'course' with the rubble work. When a portion of the S.W. quoin of the nave was taken down, it was found that the corner of the rubble work had been roughly pulled down and the new 'ashlar' stones built in without any regard to the courses of the old work; here also a whiter and better mortar has been used. The whole of the plinth of the exterior walls, and of the skirting stones at the foot of the interior, carry no weight, are often quite thin, and fell out when the earth was removed from their bases. The band of 'ashlar' round the chancel, and the worked stones round the windows, were also merely stuck on with the white mortar, and, when some of the stones of this band were removed (being loose), it was found that some of them were merely hollowed-out shells stuck on over some hard flints in the rubble work, which was too hard to be chopped down. To put in new woodwork to the south doorway, it was necessary to remove some of the quoin stones on the inside of the church, and it was found that the Norman builders had been acting on the same lines of preservation as we had in our repairs; for, although much labour might have been spared by pulling out the old sandstone quoins, they had chosen to cut the
new quoins into a $V$ shape and build them round the old ones, this being done with the white mortar. In underpinning the buttresses, there was found an old 'threshold' of sandstone worn in deep grooves by long use. Of course, this might have been brought from some other building, but it was of the proper width for the church door. This stone, broken, is now, I believe, under the elms east of the chancel."

A paper, by Mr. Sidney Heath, on " The Cross-legged Effigies in Dorset," on account of the lateness of the hour, was taken as read; it will be printed.

The meeting was then closed.

xlviii.

## FIRST SUMMER MEETING.

## BRADFORD-ON-AVON AND BATH.

The First Summer Meeting was held at Bradford-on-Avon and Bath, and was attended by about thirty persons. This small party was conveyed to Bradford by two trains, the one reaching Bradford at ir.30, the other at 12.16. The two contingents united at the railway station, and, under the guidance of Mr. F. Bligh Bond, F.R.I.B.A., visited many places of great archæological and artistic interest. Mr. Bond first led the party to Barton Farm, where they surveyed the ancient barn, which is 170 feet in length, built of and roofed with stone. This barn possessed remarkable interest, inasmuch as it has been continuously used as a barn from the time of its erection in the early part of the 14th century to the present, and in that period has undergone but little change, even the fine oak-timbered roof being the same that was originally placed upon the massive stone walls.

The tenant of the farm, Mr. Chard, allowed the Members of the Club to inspect the ancient room attached to the farmhouse close by, and called the "Hall." This proved to be the solar of a chamber of the same date as the barn, early 14th century, with its original window, the whole being in excellent preservation. The barn was formerly the property of the Abbey of Shaftesbury, and, from the position of this chamber and its date, it seems exceedingly probable that it was the residence of their agents (perhaps two monks), who received the rents and acted generally as the managers of the monastic property there.

Not far from the barn and chamber, and of the same date, is an ancient bridge over the Avon.

The town is a veritable mine of architectural treasure. On the way back to it Mr. Bond pointed out the characteristic features of old Bradford-the many terraces of gabled houses, mostly built by Flemish weavers, who, driven to Engiand by religious persecution in the 15 th and 16th centuries, started
the cloth-weaving business, and thus laid the foundations of the town's prosperity. On the way the party passed the Men's Almshouses, built in 1700 by John Hall, and dedicated "Deo et pauperibus." Mr. Bond stated that there was a pre-Reformation almshouse for women in another part of the town. There were excellent specimens of domestic buildings of various datesElizabeth, Q. Anne, and George I.

Passing the Queen's Head Inn and other gabled buildings on the right, the party came to the town bridge over the Avon, with its six arches. This probably, said Mr. Bond, is also a 14 th century bridge, though perhaps of later date than the Barton Bridge. A special feature of interest is a small chantry on one side of the bridge and bracketed over the river on corbels. Mr. Bond stated that the superstructure had been rebuilt, and for the last two or three hundred years the place had been used as the town lock-up. The corbelling below was original. There were such chapels on bridges at Wakefield and Rotherham, and there was also one at Bath before the bridge was pulled down.

Crossing the bridge, the party were led through "The Shambles," a straight and narrow thoroughfare, still named after a meat market formerly existing there. The place is of interest on account of two Tudor gabled houses with fine timber fronts. An oriel window, formerly an artistic feature, has disappeared. Mr. Bond invited the party to admire the straw-berry-leaf carving all round the ornamental barge-board of the gables. He also pointed out the 15 th century doorway to the Royal Oak Inn.

The party then repaired for luncheon to the New Bear Inn, where they were joined by the Vicar of Bradford, the Rev. S. O. Collisson, who, after luncheon, led the way to the parish church and gave a description of it.

The original structure, said the Vicar, was of about the year 1200, but many additions and alterations had been made at later periods. It was the mother church of six chapelries served by her, and also of the district of Christ Church in the town. The
original building consisted of a chancel, about two-thirds of the length of the present one, nave, and tower. In the 14 th century the chancel was lengthened, in the 15 th was added the present tower, and in the 16 th century two chapelries, now included in the north aisle. There were two Norman windows on each side of the chancel. He pointed out the Methuen monument, two ancient recessed tombs, the unusually long hagioscope, the traces of the rood screen, and the reredos in stone of a 15 th century altar in the aisle opposite the south porch, about which a theory had recently been propounded that it was put up as a rest for an Easter sepulchre. Such a position would be a very unusual one for an Easter sepulchre, and it seems disproved by a hagioscope -now filled up-but marked in a plan of the ancient church before restoration, which hagioscope would have had no motive if an altar had not been there. The height of the altar slab shows that the level of the aisle, or of this portion of it, has been raised at some time since the 15 th century.

The registers began in 1579. The Elizabethan silver-gilt chalice, of the year 1564 , was recorded as the oldest in Wiltshire.

## The Saxon Church.

Leaving the parish church the party repaired to the Saxon Church of St. Lawrence close by, probably the ecclesiola attributed to St. Aldhelm by William of Malmesbury.

Outside the building the arcading on the upper part of the walls attracted attention. The arcading is characteristic of Saxon and of Early Romanesque work generally. Within

Mr. Collisson, addressing the Club, said that this little Saxon church was the only perfect specimen of primitive Romanesque style, and therefore a unique example of building in the early part of the 8th century. It brought us within 70 years of the landing of St. Birinus, the Apostle of Wessex. William of Malmesbury, in 1120, in his Gesta Pontificum, wrote: "To this day there is at Bradford a little church which Aldhelm is said to have founded and dedicated to the blessed St.

Lawrence." Aldhelm was abbot of Malmesbury in 670. In a deed of 705 his small monasteries of Frome and Bradford, which he built, were mentioned when he became Bishop of Sherborne. The monasteries were little missionary settlements of three or four priests. It was, therefore, concluded that the date of the Saxon church could not be placed later than 705. This was the opinion formed, not only by the discoverer, Canon Jones, the late vicar of the parish, but also by Mr. E. A. Freeman, who in 1874 wrote: "Without all doubt this building of Aldhelm's." Originally the church was cruciform. The portion missing on the south side was clearly indicated. The line of the roof could be seen, and the foundation walls of the ancient building were discovered where the present buttresses had been placed, the height and width agreeing with the porch upon the north side. As to the dimensions of the building, the nave is 25 ft . 2 in . by 13 ft . 2 in .; the chancel, 13 ft .2 in . by 10 ft .; and the porch, 9 ft . Ifin. by 10 ft .5 in . The special points of interest are the extreme height of the building-nave, ${ }_{25} \mathrm{ft} .5 \mathrm{in}$.; chancel, 18 ft .4 in .; and porch, ${ }_{5} \mathrm{ft}$. 6 in . The step down into the chancel was peculiar, and he called attention to the narrowness of the entrance arch- 3 ft . 5 in . The nave arch is $8 \frac{1}{2} \mathrm{ft}$. high and 2 ft . roin. wide, and wider at the base than at the top. The elevation of the chancel and nave has three stages, first plain with the exception of pilasters cut out of the stone, some of them on the north side having stepped bases. Then a string course all round, and upon it an arcade consisting of pilasters supporting arches, all cut out of the stone. The capitals and bases of the pilasters are all quite plain. When the true nature of the building was discovered, before which time it was used as a free school, there was a stable and a donkey shed on one side, and when these were pulled down a great fuss was made in archæological circles, it being declared that the whole building would fall down. But such anxiety was quite needless. Soon after he came to Bradford he found that the old roof-not the original roof, which was, he supposed, of thatch-was beginning to spread the walls outward. They had to take the
roof off; and when they examined the wall they found that it was a double wall, with a space between. This they filled in with cement grouting, thus making a solid wall such as to last for all time. A problem was how to light the church. They had had four copies made of a Roman chandelier with five sconces in the British Museum; but the 20 candles were quite insufficient to light the interior.

The President thanked the Vicar for kindly showing the Club his two churches, and remarked that the Saxon church was of especial interest in the year of the celebration of the 1,200 th anniversary of St. Aldhelm as Bishop of Sherborne.

The Club then visited "The Priory." The house, Mr. Bond stated, dated from the reign of Henry VI., and on the upper side of it was a barn of the same period. The house is a curious medley of styles from Heury VI. onward; though called "The Priory" the house never had any connection with any ecclesiastical estabiishment. At "The Chantry," the next house visited, the Members were received by Dr. and Mrs. Beddoe. The main portion of the house dates from Henry VIII. to this. Inigo Jones added two rooms.

From the Chantry the party walked to the hall, a beautiful house built in the later years of Queen Elizabeth's reign-here by the hospitality of the owner, Mr. J. Moulton, tea and fruit were served.

By the 6.26 train the Members departed for Bath.
At 7.30 dinner was served at the Pulteney Hotel, after which two candidates were proposed for membership.

At nine o'clock the Club visited the Municipal Buildings. Here the Rev. C. W. Shickle, Master of St. John's Hospital and ex-President of the Bath Field Club, and the Town Clerk received them. In the Mayor's parlour the municipal regalia, with the chain and seal, and maces, the two-handled sword and loving cup were laid out for inspection. In the archives of the Corporation are the whole of the city accounts from the 8th year of Queen Elizabeth. A series of early and very interesting charters was shown.

After breakfast at the hotel on Wednesday morning the party sallied forth at 9.30 and walked to the Pump-room, where they were received by Mr. Alderman Moore, chairman of the Baths Committee of the Corporation, who was accompanied by Mr. A. J. Taylor, pupil of the late Major Davis, F.S.A., to whom were due the excavations made with such interesting results at the Roman Baths.

The Members first inspected the cases in which are arranged many of the valuable and curious objects found during the excavation of the Roman Baths. There is a fine series of Roman imperial coins (reported on by Mr. E. C. Davey, F.G.S.), found between 1879 and 1898 , and covering a period of nearly 480 years, from 50 B.c. to 423 A.D., and a collection of engraved gems found during the excavation of the wooden duct, and a model of a portion of the Roman Baths.

After visiting the fine concert hall,
Alderman Moore took the party to the King's Bath, the famous mediæval bath, which is 5 ft . 6 in . deep, and the bottom of which is the ceiling of the Roman reservoir below it. The central shaft of the spring enters the Roman reservoir. The Romans, with a view to protect the water from any possible contamination, built a wall round the spring 3 ft . 6 in . thick.

Alderman Moore then led the party down and showed them the old dipping place at the commencement of the Roman culvert which conducted the waste mineral water away to the river. It was here the ear-rings, pearl pin, dipping cups, and various ornaments were found, having evidently been dropped by accident into the water.

Mr. Taylor showed the party close by the interesting fragments of the temple dedicated to Sul-Minerva. These fragments were found in 1790 under the west end of the Pump-room. The pediment was supported by four columns. The middle object of the tympanum is a clipeus, or round shield, carved in relief with the head of a gorgon, supported on either side by winged Victories. This head, said Mr. Taylor, is pronounced to be the finest specimen of Roman carving extant on this side of the
liv.

Alps. There were two other temples on the right, one dedicated to Selene and the other to the Four Seasons. In this latter temple one broken stone was found in 1790, and another, which fitted it perfectly, was not found until 1897. Mr. Taylor also called attention to an interesting little altar to Minerva and a head of a lady of the time of Diocletian.

The party were then conducted to a spot in the schola beside the largest Roman bath, and, having seated themselves, were addressed by Alderman Moore. They were, he said, standing on classic ground. Roman Bath was strictly circumscribed in area, being not more than a quarter of a mile in diameter. The names Westgate Street, Northgate Street, and Southgate Street served to keep alive the fact of old entrances to the city. The bath that they were looking at was the principal one of a series of five running in a line, and it was the finest Roman bath north of the Alps. After the roof had fallen in the débris washed down from the hills surrounding the city filled the bath up and covered it to a considerable height. The Poor Law Union Office was in latter days built over the site. The discovery of the bath was made by Major Davis on going under the house to underpin the foundations, which had been found to be unstable. The bottom of the bath was covered with lead, in sheets of $10 f t$. by 5 ft ., and weighing 40 lb . to the foot.

Bath from early times had drawn its fresh water from St. Winifred's Well, under Lansdown, and this cool spring water was laid on by the Romans to the hot baths and used by them as a douche and for drinking. Bracelets, safety and other pins, ear-rings, and amulets had been found at the drinking-place. It was supposed, judging by the coins found, that the baths were begun in the reign of Claudius, just after he came from England. Full-length statues of eight of the Roman Emperors and Generals who came to Britain had been erected over the schola, the series running from Julius Cæsar to Constantine. At the time when the bath was uncovered, Alderman Moore continued, he happened to be Hon. Secretary of a flourishing Bath Microscopical Society. On examining the sediment in the bath, he
detected the presence of certain minute shells, and sent specimens to Professor Rimmer, the author of "Fresh Water Molluscs," who pronounced the opinion that they were found only in brackish water. This raised the interesting question whether the bore ever came up the Avon. It had hitherto been considered that it did not. Mr. Taylor led the way to the third bath of the series, a circular margin quartered into arcs by flights of steps leading down into the waters, and he then conducted the party to the remains of the hot-air room. He pointed out the hypocaust, the piles of flat brick tiles, cemented together, which supported the floor. The furnaces were near.

Before leaving the baths the President returned the thanks of the Club to Alderman Moore and Mr. Taylor for their kind offices.

The party were then conducted to

## The Abbey Church,

where they were received by the Rector, Prebendary Boyd, who related the well-known story of the religious foundations of Bath.

Religious sites, said Canon Boyd, show a tendency to be permanent, and there was much to be said in favour of the theory that the Abbey stood on the site occupied by the Temple of Minerva in Roman times. In 676, their first great date, Osric founded a nunnery in Bath. Secular canons replaced the nuns in 775. In 970 Dunstan established a Benedictine Priory here. Three years later King Edgar, who had been reigning a few years, was hallowed as King by Dunstan in the priory church. In 1088 John de Villula, or John of Tours, the first Bishop of Bath, set to work to build a fine cathedral in Bath, extending from the west wall, as they saw it now, to a considerable distance towards the Empire Hotel. Fifty years afterwards there was a destructive fire, and they found Bishop Robert in 1137 rebuilding the church. It was doubtful whether we saw to-day the remains of Bishop Robert's cathedral or of the
lvi.
previous one of John de Villula. The monastic buildings were on the south side of the abbey, but they had gone entirely. After 1242 the Canons of Wells, whose church had begun to rise, showed much jealousy of the eminence hitherto enjoyed by Bath, and whenever the Bishopric became vacant there was a strife between them who should appoint the Bishop. Sometimes he was appointed by Bath and sometimes by Wells. There were appeals and much litigation, whereby the 40 monks of Bath were reduced to a state of perpetual involuntary poverty, and were not able to keep up their great cathedral church. It, therefore, became an utter ruin, and so continued for two hundred years. In 1499 the Bishop of Bath and Wells, as the title had been since 1244, was Dr. Oliver King, whose rebus, an olive tree springing out of a crown, was to be seen on the abbey walls. Tradition had it that he dreamed a dream, in which he saw a ladder set up to heaven from earth, and angels ascending and descending it, and was exhorted to restore the church. He acted upon the suggestion of the dream, and the vision was commemorated in the carving of the ladder and heavenly host on the west front. The plan for the re-edification of that ancient church was carried out mainly by William Bird, who also built the chantry, quite the most interesting architectural feature of the church. The delicate fan tracery and vaulting was similar to that of the choir. The church had always been dedicated to SS. Peter and Paul. It was reconsecrated about 1592 . The beautiful vaulting of the nave, to correspond with the chancel vaulting, which was pre-Reformation, was carried out between the years 1864 and 1871 by Prebendary Kemble and Sir Gilbert Scott, replacing as it did the waggon roof of plaster and wood. The length of the abbey now was 225 feet. The numbers of weeks and months of the year and days of the week were signified by the 52 windows, the 12 columns, and seven doors. The church was of fine proportions. He pointed out, as worthy of the admiration of the Club, the magnificent east and west windows, and the clerestory windows, of great size and elegance. Canon

Boyd led the party round the church, pointing out divers objects of special interest, particularly the monuments, in which the abbey is notably rich, richer indeed, it is said, than any such building in England save the great sanctuary of Westminster. The party noticed the medallion bust of the actor Quin, who is buried in the abbey, with the dedicatory lines by his compeer Garrick; the canopied tomb of Sir William Waller, who commanded the Parliamentary forces at the battle of Lansdown; the mural tablet to Malthus, author of the famous essay on "Population;" Lieut. Willoughby, who blew up the magazine at Delhi ; and the monuments to Alan, Lord Gardner ; to Beau Nash, the King of Fashion and controller of ceremonies at Bath until his death in 1761 at the age of 87 ; to William Bingham, by Flaxman ; and to Mary, third daughter of Richard Frampton, of Moreton-another name familiar to Dorset folkand Jane, his wife, with a long panegyric by Dryden.

After luncheon at the hotel the party, under the guidance of Mr. T. S. Bush, visited the Museum, which contains a large quantity of Roman antiquities and also geological, palæontological, mineral, and ornithological collections. The Club were received by the Rev. H. H. Winwood, Chairman of the Museum Committee, and Mr. Davy, the Secretary. From this museum they walked, accompanied by Messrs. Winwood, Bush, and Davy, to the Holburne Art Museum, and from thence to the Royal Victoria Park and Botanic Gardens; the Park contains specimens of almost every British tree, and also many foreign ones.

The party returned to the hotel for tea, and dispersed shortly before six o'clock.

Iviii.

## SECOND SUMMER MEETING.

## POOLE AND BROWNSEA ISLAND MEETING.

The Second Summer Meeting was held at Poole and Brownsea Island on Tuesday, August 8th. There was an unusually large attendance of Members, no less than 164 cards having been sent out.

## Poole.

The Club found in Mr. J. Robey Eldridge, Hon. Secretary of the Poole Natural History Society, and Mr. W. K. Gill highly competent guides. The latter conducted the large party down West Quay Road, towards the West Shore. On the way a short halt was called in front of the Almshouse, built in 1816 by George Garland, a wealthy Newfoundland merchant, the same who, on the occasion of the great feast in 1814, presented "One honest plum pudding of one hundredweight" towards the great feast held in Poole Street. For a long time, Mr. Gill informed the party, the merchants of Poole enjoyed the best of the trade with Newfoundland, exporting cloth and varied goods and importing fish, sealskins, oil, \&c. All the trade was done on the truck system, and the merchants of Poole grew rich by buying wholesale the goods which they exported and selling them in Newfoundland retail, and buying wholesale the goods which they imported in exchange and retailing them here.

Further down the party passed the front of the house built in 1746 by Sir Peter Thompson, a Poole merchant, who did a large trade with Hamburg, and who had been knighted the year before. It was a good example of a Georgian house, and still bears the Arms of Sir Peter over it. Poole is rich in old merchants' houses; most of them have been vulgarised, but Sir Peter's house is now Lady Wimborne's "Cornelia Hospital," and thus devoted to a noble purpose. The most ancient almshouses of Poole were next pointed out. They were originally built in the reign of Henry V., and were long the
property of the St. George's Guild. They passed to the Crown in $\mathbf{I}_{547}$, and were purchased for the Corporation in $\mathbf{I}_{50}$. Thus, though doubtless they have been rebuilt more than once since they were first built, they have been devoted to the use of the poor for over 500 years.

The party were then led to a portion of an ancient stone wall, which is said to have been part of the wall built for the defence of the town. This seems to the writer to have been not improbable.

The next halting place was at the

## Town Cellars.

Here a discussion arose, which was continued at the Town Hall, as to whether this building was originally part of a monastic establishment, or was an ancient building devoted to secular uses.

The debate may be thus summarised.
As to the date of the building, Mr. W. Miles Barnes said that, judging from the architecture, it was originally built in the $14^{\text {th }}$ century, and had undergone extensive repairs in the 15 th century. The windows at the back of the building were of that period, and there had been a window of that period inserted in the front facing them.

Mr. Mate believed the building was a portion of some monastic establishment. It was formerly much longer than at present, and the part pulled down some 25 years ago, when the new buildings were erected, had fittings of an ecclesiastical character. He considered that it was undoubtedly connected with a religious foundation, probably the Priory of Bradenstoke (Wilts), founded by Walter de Salisburie in the 12 th century, to which the houses of Poole and Canford were attached.

The Rev. F. W. Galpin thought that it was in favour of Mr. Mate's theory that there is a "Paradise" Street bounding the building on the south, while on the north is "Salisbury" Street, and that the old part, now pulled down, was described in
records of the 17 th century as "Paradise" Cellar. This name is suggestive, as a " Paradise" was a place to which the monks, after hard fasting and penance, were allowed to retire for rest, refreshment, and recreation. The "Paradise" of the great Benedictine house at Canterbury still remains, and the site of an old building and garden adjacent to the Priory of Hatfield Regis (Essex) is even now locally known as "Paradise."

Mr. Gill said there was an utter lack of record of any monastic foundation at Poole. There is no mention of a friary or of any other monastic establishment at Poole in Dugdale or in Tanner, or in the Taxatio Ecclesiastica of Pope Nicolas. Father Gasquet has the following note in the Appendix to Vol. I. of his "English Monasteries" :-" Poole 'a friary.' No friary, the grant 3 Ed. VI. seems to have been of guild property." The property had always been and was manor property. There was no record of alienation or resumption.

Mr. Barnes remarked that, if there was no record of a monastic establishment at Poole, it seemed almost conclusive evidence that there had been nothing of the kind there.

On leaving the Town Cellars, the company were courteously received and welcomed by the Mayor at the Town Hall. The President expressed the thanks of the Field Club to the Mayor for the use of the Hall and his kind reception of them, and also to Mr. Gill for the delightful manner in which he had acted as their guide.

The large party then mounted the vehicles, which were drawn up on each side of the Hall, and were driven through Poole Park to Sandbanks, at the extremity of which they were set down before the Haven Hotel. Here luncheon was served, after which a meeting was held on the terrace outside the hotel. The only business transacted was the election of twelve persons to the membership and the nomination of three candidates for membership. Mr. Alfred Pope then made an appeal, on behalf of the Museum Council, for contributions towards defraying the cost of raising and relaying on the floor of the County Museum the mosaic pavement lately found in Durngate Street, Dorchester.

## Brownsea Island.

Then it was time to repair to the little pier close by to cross over the channel to Brownsea Castle. Messrs. Ashton and Kilner's steam launch had been engaged to ferry the party over, and a large barge was taken in tow; but so large was the number that the crossing would have taken some time, had not Mr. and Mrs. Van Raalte most kindly and thoughtfully expedited the passage of their guests by sending their steam yacht and steam pinnace to supplement the hired boats.

On landing, the party received a gracious welcome from Mr. and Mrs. Van Raalte, and were conducted to a spacious terrace beneath the Castle and overlooking an Italian garden, exceedingly beautiful in its summer garb and wealth of colour. Here Mr. Van Raalte read the paper on the history of Brownsea Island, which is printed at the end of the volume.

The President, in thanking Mr. Van Raalte, expressed pleasure at the fact that in his paper he had dealt with the natural history of the Island as well as its matters of general history and archæology; and he took occasion to refer to the catalogue of the botany of the Island made 150 years ago.

Mr. Van Raalte then conducted the party over the Island. They visited first the battery of five guns, supposed to have been brought from the Royal Frederick, and, as evidence thereof, bearing the initials R. F. on their trunnions. The hill on which the battery is stationed has been lowered; had this not been done, the battery would have commanded the Castle. When carrying out some alterations to the square tower of the Castle three ancient cannon balls (3-pounders) were found embedded in the wall.

From the battery the party strolled through a pine wood above the sea and across a pleasant grassy glade to the church -a new one, but containing much that was old and interesting. In the churchyard is a finely-sculptured Italian well-head, now used as a memorial stone. The well-head is cut in Appenine limestone, and is reputed to be very old. If that is the case, it
was probably not long in use as a well-head, for there are no rope marks upon it. Within the church is much oak panelling from Crossby Hall, Cardinal Wolsey's palace.

Leaving the church, the Members were led through a beautiful garden glowing in colour, between rows of herbaceous plants, and of roses and creepers stretching in long festoons from one rustic pole to another, thence along the wooded bank of a stream, and through a plantation-from whence a glimpse could be obtained of deer not far away-to the freshwater lakes. The party then returned to the Castle and inspected the fine collection of ancient musical instruments, ranged in groups upon the walls of the hall according to the class to which they belonged. The collection included a portative organ of the $15^{\text {th }}$ century, a virginal of the time of Queen Elizabeth, a spinet, a harpsichord, harps, lutes, lyres, and other stringed instruments. The wood wind included a serpent, a favourite instrument in the village church bands of Dorset. Tea was then served to the large party on the terrace of the castle, and the guests, after hearty expressions of appreciation of the kindness and hospitality of Mr. and Mrs. Van Raalte, took their leave and re-embarked, raising a hearty cheer for their hosts as the boats left the landing stage. The carriages were in waiting at Sandbanks, and the Members were soon on their way to the station for the return journey.


FRAGMENT OF WAYSIDE CROSS, LANGTON HERRING.

## THIRD SUMMER MEETING.

## CHESIL BEACH AND FLEET MEETING.

The Last Outdoor Meeting of the season was held on Thursday, September 14th.

The meeting attracted a large number of persons; ninety assembled at the Weymouth Railway Station, from whence the start was made at io.30. The first halt was made at Langton Cross to inspect the remains of an ancient wayside cross.

Here Mr. A. Pope, who is gathering materials for a work on the crosses of Dorset, read the following paper:-

## Langton Herrivg Cross.

This is the remains of a fine old Latin cross hewn out of one solid block of Portland or Ridgway stone firmly embedded in the ground, and, judging from the bold chamfered edges both to the shaft and the arms and the general design, it would probably be considered 14th century work.

It will be noticed that the top or head of the cross has been broken off, and that the arms, particularly the right, have been somewhat damaged, and that the whole is much weather-worn and covered with moss and lichen, which adds considerably to its venerable appearance.
I have been unable to discover any lettering or ornament of any kind upon the stone.

I have taken very careful measurements, and I find that the length of the shaft from the ground to where broken off is 3 ft . 2 in . It is embedded in the ground 1ft. 7in. (as ascertained by the late Major William Sparks), making together 4 ft . 9 in .

The transom, or arms, measure 1 ft . 7 in .
The shaft at the bottom is 11 in . square, tapering to 9 in . at the top.
The chamfering, which is both before and behind, is unusually bold, and measures $2 \underset{4}{3} \mathrm{in}$.

The cross faces towards the south, inclining slightly towards the west, and before the deeply-excavated road to Portesham was made would have stood up much more prominently than it appears at present.

It stands in the direct route from Weymouth to the ancient Abbey of Abbotsbury and St. Catherine's Chapel, at the junction of the roads from Langton and Portesham to Weymouth.
lxiv.

So far for description of the stone. Let us now consider to what uses this venerable cross may have been put in ages gone by and the reasons for its erection.
Crosses, as is well known, are our earliest symbols of Christianity ; no objects in our island belonging to historic times are older. They were erected as memorials to the dead, and for preaching and praying purposes before each parish had its chapel or church. The markets in our country towns and villages were held around or under them, and all important notices, and often banns of marriage, were proclaimed from them. They served as guide posts, where the weary wayfarer might rest and breathe his evening prayer, and as boundary or bond marks, where the reverence paid to the cross in early times would be an efficient guard against encroachments. Many of the possessions of religious houses had their boundaries so defined, as evidenced by records wherein these are named, and that not always by crosses set up for the purpose, but by adopting those already existing.
This cross, then, it may be safely surmised, was set up for one of these two latter purposes, or possibly for both.
It may have been a guide mark and praying station for those pilgrims landing at Weymouth and journeying to the Monastery of St. Catherine's Chapel at Abbotsbury, and, on reference to the map, it will be found that it is in the direct route and about half-way between that port and the Abbey; or it may have served as a boundary mark of the Abbey lands, for which no further use was required when the Monastery was dissolved and deprived of her possessions.
In the absence of direct proof, either of these hypotheses must be merely conjecture, and I must leave you, ladies and gentlemen, to form your own opinions as to the original use of this ancient monument.

The brakes were then driven on to Langton Herring, and the party were received at the church by the Rector, the Rev. W. O. Cockcraft, who showed them over the church. The Rev. W. Miles Barnes supplementing the remarks of the Rector, observed that the church was originally built in the $13^{\text {th }}$ century. Of that date the tower remained almost intact, although a coping of later date had been added to the top of it. There were also two lancet windows of the same date, as well as some of the walling. They would observe two brackets in the east wall; these he thought, had been moved from their original position, which, however, was not far off; they supported images of S. Mary and S. Peter, the patron saint of the church, and it would be observed that on the face of one of them crossed keys, the emblem of S. Peter, were carved.

## The Geology of the District.

Leaving the little village of Langton the party crossed the fields to the coastguard station, a distance of a mile and aquarter, profiting on the way by the guidance of Mr. Hudleston, the eminent geologist, and Mr. Bowles Barrett, the first authority on the botany of the district. Going down into a small quarry Mr. Hudleston showed his followers a typical section of the Forest Marble, the characteristic of which is a number of false-bedded lime-stones, not true stratigraphically, but dipping into a mass of clay. On reaching the Fleet, Mr. Hudleston, standing on the top of the great oyster bank of the Fuller's Earth formation which projects into the Fleet, addressed the members as follows :-
I consider that this would be the most appropriate place for making a few remarks on the geology of the immediate district. The President pointed out last year at Osmington the important feature of the great anticlinal known as the Weymouth Saddle. The party are now standing on the very axis of that saddle, since from the Fuller's Earth, which you see in front of you, the several formations which constitute the Weymouth triangle dip away from this dome on either side. The existence of the Fuller's Earth at this particular spot was first discovered by Damon, the well-known geologist of Weymouth. Though it attains its maximum development of 150 feet in the West of Dorset, the formation was first named Fuller's Earth more than 100 years ago from its containing in the neighbourhood of Bath the material known as Fuller's earth, which from its property of absorbing grease was used by clothmakers in the operation of "fulling." It is essentially a marine formation, and in some places contains ammonites, though not here. Clays are the predominant feature, and this great clay formation may be traced northwards through the Cotteswolds, thinning all the way until it appears to merge in the Stonesfield-slate of Oxfordshire. In this district the Fuller's Earth is characterised by thick banks of oysters such as the one we are now inspecting. This is not a mere shell-drift, but rather represents an oyster-bank, such as occurs in water several fathoms deep of existing seas. The particular oyster which makes up this bank is a very narrow form, less curved on the whole than the typical Ostrea acuminata to which it is referred. Specimens with both valves in apposition are abundant and well preserved, and the variety of form is very considerable, some specimens being modified by attachment. The next formation in order of time to which the programme alludes is the Forest Marble, and here again we meet with an anomaly in geological nomenclature so far as this district is concerned, for there is no forest here, neither is there any marble in the quarries. The Forest Marble of Dorset, which is probably about 120 feet thick at its maximum, is very clayey and marly,
yet with a considerable irregular distribution of flaggy false-bedded limestones often characterised by flattened fossils and fragments of oysters-in fact a flaggy shell-limestone. It is essentially a shallow marine formation, and may be traced into Oxfordshire, where some of the flaggy limestones in Wychwood Forest are hard enough to take a polish; hence the term Forest Marble. One of the objects of the excursion should be to endeavour to find the junction between the Fuller's Earth and the Forest Marble.

It has been laid down by the Geological Surveyors that the actual base of the Forest Marble in this district is a rich fossil-bed, about two feet thick, known as the Rhynchonella-bed from the abundance of Rhynch. varians. But there are plenty of other fossils in this bed; and this makes the north shore of Herbyleigh, just opposite, capital ground for the collector. But these are merely fossils that have fallen from the little cliff on to the shore. What we want to do is to locate the bed itself, and so to prove its relations to the underlying Fuller's Earth, of which about 26 feet are said to be displayed in the section on the north coast of Herbyleigh. So far we have dealt with facts, but now eomes a bit of speculation. The geologist is bound to ask what has become of that fine limestone formation, the Great or Bath Oolite, in the midst of this mass of clays and marls and calcareous flags? We should expect to find it at the junction of the Fuller's Earth and Forest Marble, but its non-appearance is not altogether unexpected, for we know that a few miles south of Bradford the Great Oolite, as a distinct limestone formation, has thinned out to a featheredge, and thus Dorset is deprived of the finest building stone of Bathonian age. The question then naturally arises, does any portion of the Forest Marble of Dorset represent the great Oolite. Perhaps the Bradford Encrinite (Apiocrinus Parkinsoni) may serve to throw some light on the subject. This fossil, as we know, is characteristic of the Bradford clay, which is generally regarded as the basal member of the Forest Marble in that part of Wiltshire. The position of the Bradford Encrinite in the Forset Marble of Dorset is, therefore, a matter of importance. The President has frequently found its remains on the south coast of Herbyleigh, but not, I believe, on the north coast. (Assent on the part of the President.) Hence we may conclude that the Rhynchonella-bed, which is held to be the base of the Forest Marble in this district, does not represent the Bradford Clay, but that we must look for the equivalent of the Bradford Clay higher up in the Forest Marble series of Dorset. This view seems to correspond with the general section of the Forest Marble of this county as given by Mr. H. B. Woodward, who places the position of the Bradford Encrinite almost in the middle of the series. If, therefore, the equivalents of the Bradford Clay are to be sought in the middle of the Dorset Forest Marble, may not the lower portions, including the Rhynchonella-bed, partially represent the Great Oolite of the Cotteswolds? Mr. Hudleston concluded by expressing a hope that members might secure a good bag of fossils from Herbyleigh, but time did not admit of this. If, he said, a boring was made at this spot we should, after passing through a hundred feet of Fuller's Earth, come upon the Inferior Oolite.

After Mr. Horace W. Monckton, past President of the Geologists' Association, had spoken, the members and their friends embarked from an improvised jetty in boats provided by fishermen and coastguardsmen, and were ferried over the Fleet in them to the Chesil Beach. Here lunch was taken, after which Mr. W. Bowles Barrett read a paper on "The Flora of the Chesil Bank and Fleet," which will be printed in full.

On the conclusion of the paper, the President observed that this was a part of the coast little known, and they had reason to congratulate themselves on having Mr. Bowles Barrett with them to tell them all that he had told. The Club held a meeting there 17 years ago, crossing over at a point further down the Fleet, and on that occasion their first President, the late Mr. J. C. Mansel-Pleydell, told them about the plants. Chara alopecuroides was called in the report of their then "Proceedings" Lamprothamnus alopecuroides. Mr. Barrett was the original discoverer of it here in 1889, and concluded that it must grow in the Fleet. He and Mr. Richardson accompanied Mr. Mansel-Pleydell when he went to the Swannery to try to re-discover it. They fished about for several hours and found absolutely nothing, except common weeds; but at last by good fortune they hit upon that beautiful little foxtail Chara; and then they found it growing in patches in large quantities right up at that end of the Fleet. He had a vivid remembrance of Mr. Mansel-Pleydell's extreme delight at the success which attended their search.

The party then made their way towards the spot from which they were to cross to Herbyleigh, botanizing by the way, the prize falling to the lot of the Hon. Mrs. Evelyn Cecil, who secured a specimen of Limonium occidentale-a plant which has not been recorded as found on the beach since 1876 .

After re-crossing the water Mr. C. E. A. George, at the invitation of the President, addressing the members, gave an account of the Fleet, and especially of the tides which rise and fall in it.

## lxviii. CHESIL BEACH AND fLeET meeting.

Mr. Georae said that the Fleet was eight miles long, five-eighths of a mile wide at its widest part, by Fleet old Church, and at its narrowest, near Wyke Regis, only about a hundred yards in width. That narrow part continued about half-a-mile, and by the Ferry Bridge it was a narrow neck. At the boathouse the width of the water was 250 yards. The bottom was mostly of mud, and on the average there would be about three feet of it. There were also gravel, rock, and stones. The whole of the Fleet water was salt. The amount of fresh water flowing in from Rodden brook and a little stream by Fleet House was so small that it had scarcely any appreciable effect in reducing the brininess. He was approached not very long ago with a proposal for enclosing certain portions of the Fleet with a view to obtaining gold. He had not known or imagined before that the Fleet water was a gold mine-(laughter)-but it seemed that there were works near Hayling Island, worked on the principle of enclosure and deposit. So far nothing had come of the proposal. The greatest rise of tide about that part would be from six inches to four feet, just at the boathouse. In rough weather the sea flew over the top of the Chesil Beach in big showers, and one could see the spray falling into the Fleet water. It was, he believed, an established fact that the sea at high tide in rough weather came through the beach and largely affected the tide. It percolated through the beach and raised the tide to the extent of a foot or two feet more than the average. In the memorable gale of 1824 the tides were so high-whether it was a tidal wave or not he did not know-that it actually rose to old Fleet Church, although it was about 20 feet above the level of the Fleet water, and partially destroyed the church and several cottages. The nave was swept entirely away and only the chancel left standing. Locally it was always called, not the great storm of 1824, but the " outrage"-certainly an expressive term. One old man who died recently told him that he escaped from his cottage with the greatest difficulty. The water was very shallow. The bottom was almost flat; but there were a few holes, some 12 or 15 feet deep. Eels were very abundant in the Fleet water, and also occasionally gray mullet. A few years ago some oyster beds were started at the entrance by Lord Ilchester; but he did not think that they were now much used. Even in that water, in rough weather and high tides, boats found great difficulty in getting across the Fleet, especially the flat-bottomed boats. He had known cases in which they had to bale as hard as they could to keep afloat and to get across. As to the height of the tides, they got a week of low tide and a week of high tide, according to the state of the moon. In a great frost, when the ice broke up, the weed that stuck to it was carried out, leaving the bottom bare. The question was raised whether it would be possible to have a ridge of stones or a breakwater across the Fleet so as to prevent the water going out when it came in. The weed grew again, and he took it that to a great extent it impeded the movement of the tide, and tended to retain the water. The Fleet water in that part was to his mind absolutely safe for boating; but at the lower part, owing to the curious holes and currents, it was none too safe, at any rate for children. The tide rose in the Fleet when the sea in the Channel was falling,
so that often it would be high tide in the Fleet and low tide in the outer sea. The level of the beach was about 40 feet above mean water at Liverpool. A most interesting experiment would be to pierce the top of the beach through the pebbles to see what was the thickness of the layers of pebbles before coming to the solid clay.

The party then divided, one section taking the road by the shore below Fleet House; the other, led by Mr. Hudleston, went another way to see the fossil beds, their chief object being to locate the precise position of the Rhynchonella-bed. This, however, could not be done in the limited time at the disposal of the party.

On the drive to Montevideo a halt was made to enable the Club to see old Fleet Church. The Rev. W. Miles Barnes repeated the story of the wave which ruined the church, and gave some account of the Mohun brasses still in the ruined church.

## The Montevideo Collections.

The large party were most kindly received and hospitably entertained by the President and Mrs. Richardson.

After the long drive and walk the excellent tea provided was most acceptable.

After tea the President addressed the members.
A business meeting was then held, at which three candidates were elected members and 13 proposed for membership.

Then the party dispersed over the house to inspect the various valuable collections-moths and minerals, fossils and shells, china and pictures, books and miscellaneous curiosities. The visitors were deeply interested in the type specimen of Cimoliosaurus Richardsoni, the Jurassic saurian found in 1887 in a neighbouring brickfield in the Oxford Clay, put together at the cost of infinite pains by Mr. and Mrs. Richardson, and described by Mr. Lydekker as a new species. The reptile was inspected in the library, and in the same room was Steneosaurus, also from the Oxford Clay of Chickerell. At the end of the dining-room
hung a fine pair of horns of the Irish elk, the span of the antlers being no less than 12 feet. Admiration was evoked by the cases of butterflies and moths, all most beautifully mounted. Of the smaller moths Mr. Richardson has made a special study. The rare series of English Bibles, beginning with the first English Bible of 1535, were alone worth a journey to see, and the visitors were delighted with the exquisite service of Worcester china, painted and decorated by Mrs. Richardson with marvellous beauty and accuracy and delicacy of detail. Then, while the party sat in chairs on the lawn, the President gave an interesting account of the numerous, perhaps we ought rather to say innumerable, objects of rarity and interest which his home contains. The portions of his paper which are not already printed in the "Proceedings" are given below, but for further particulars with regard to Cimoliosaurus Richardsoni, the head of the Irish elk, and the butterflies and moths, reference should be made to Vol. XIX., p. 154, where the description of the collections is given in full on the occasion of the last visit of the Club to Montevideo. He said :

[^4]was situated in the dorsal fin of this shark-like fish, is from Lyme Regis, and the various vertebræ are those of different local species of saurians, named by Mr. Lydekker. There is also a tooth of Cimoliosaurus Portlandicus, which appears to be very rare, as I do not see one mentioned in the British Museum catalogue. There are some other local and miscellaneous fossils in boxes, but not properly arranged. One box contains portions of Apiocrinites rotundus, the pear encrinite from the Forest Marble beds we have visited to-day, and there are others from the Oxford Clay, Fuller's Earth, and elsewhere. Anyone who devoted himself seriously to it might make a large collection within a few miles of this house. In connection with fossils I would refer to the fine pair of horns of the Irish elk at the end of the dining-room (see "Proceedings" XIX., 156), which, measured along the horns, give a span of 12 feet and show 16 tines. On the tables in the dining-room are spread out a selection of drawers of butterflies and moths from my cabinets. Out of about 2,160 British species I possess in my collection about 1,940 (or probably more than 20,000 specimens), which include most of those that are practically obtainable. (See "Proceedings" XIX., 157.) One of the smallest moths, Nepticula auromarginella (" Proceedings" XI., 174), has never been found outside the parish of Chickerell, and, as it is now a good many years since $I$ discovered it, entomologists have had every opportunity for finding it elsewhere. There are several species of moths confined to Dorset, amongst them one described as Tinea subtilella in our " Proceedings" (" Proceedings" XII., 161), which was discovered as a British species by Mrs. Richardson at Portland. I only know of oue other lady who has made a similar discovery. A few insects of other orders are placed in the dining room to illustrate the different forms, but of these I have only a very small collection. Amongst other natural history objects I may allude to a collection of foreign shells in 44 drawers upstairs, of which I have only been able to put out one or two drawers, but the others can be seen by anyone who wishes. There are also several cabinets of minerals (including a drawer of crystals of selenite from the Oxford Clay here and a fine crystal of calcite from Derbyshire weighing 15lb.) and miscellaneous articles in the same room over the drawing room, which is our general work room and museum. There are also two cases of stuffed birds of paradise of eight species from the New Guinea district. All are rare, the one with the long black tail (Astrapia nigra) being especially so. Besides their beautiful metallic colours they have usually strange tufts of feathers, or flowing trains or curiously-shaped tails. These are all male birds, the females being comparatively dull and ordinary looking. There is another case containing a turkey's skeleton made by myself, an Apteryx from New Zealand, and an Ornithorhynchus from Australia, in which should be noticed the spur on the hind leg. This spur is perforated like a viper's tooth and has a gland at the base which appears to secrete a poisonous fluid. To turn now from nature to art. You will see upstairs on the landing a case containing an interesting series of English Bibles, about which you will find more detailed information in the labels

## lxxii. Chesil beach and fleet meeting.

and the pamphlet lying outside. The most important steps in the evolution of our present English Bible are six in number and are here illustrated, five of them by the first editions respectively of the Bibles referred to. First, we have the first English Bible of all, published by Miles Coverdale in 1535, which stands out in importance from all the rest, and on which all the others are more or less founded. Secondly, Thomas Matthew's Bible of 1537, the real author being John Rogers, the first martyr under Queen Mary. This bears on its title page the words " Set forth by the King's most gracious lycence," and is therefore the first authorised edition. Thirdly, the Great Bible of 1539, from which our Prayer Book Psalms are taken, they having been inserted in the first Prayer Books and remained without alteration. Of this I have not the first edition to show you, but the edition of November, 1540, which is very similar. Fourthly, the Genevan or Breeches Bible, which was very popular, and passed through very many, nearly 100 , editions, large and small. Out of eight I possess I exhibit the first edition of 1560 , a rare book, though some of the editions are comparatively common. This is the first Bible divided into verses. Fifthly, the Bishop's Bible, first edition, 1568, and, sixthly, the present Authorised edition, of which I exhibit a fine copy of the first issue of 1811. I have various other early Bibles and Testaments, amongst which I would mention one of the earliest Testaments of Tindale of 1536, in another case, an interesting little book with wood cuts, which most of these Bibles also possess. There are a few early printed books from 1468 onwards, and MSS., including one of Isaiah of about 1225, a little book of statutes in the original binding, of about 1330, a beautifully-executed Book of Hours, about 1400, unfortunately cut down, some old deeds from the first year of Edward II., including a series of the pictorial ones from Charles II. to Victoria. I have placed labels to many of the books, \&c., which give further particulars. There are several cabinets of china in different rooms, which contain, in most instances, small specimens which illustrate the different English factories existing in the 18th century. There are specimens also illustrating a considerable number of the Continental factories of that period, of which many, especially German and Dutch ones, were very short lived. The secretaire in the corner of the diningroom contains, amongst other things, a set of dessert plates and some other pieces painted and decorated by Mrs. Richardson and there is also a vase of hers in the large cabinet in the same room. I mention this, as some of those present have kindly expressed a wish to see them. There is a good piece of Urbino majolica, about 1530, over the mantelpiece, and a dish hy the celebrated potter Palissy in the large cabinet of about the same date. In the hall an interesting old inscribed Italian dish hangs (date about 1460); and a beautiful jewelled Sevres jug; and some Chelsea and other china are in the drawing-room. On the landing on the first floor is some old English pottery which is very quaint and grotesque, comprising puzzle jugs, a fuddling cup of 1743 , a large Fulham jug of 1727 , both with inscriptions, a Staffordshire "dog of Fo," a few slip ware articles (the finest being, however, a dish hanging in the hall), an owl jug, and other things. In the
room at the top of the first flight, besides books and deeds, are some Peruvian pots of very varied forms, often imitating natural objects, said to be pre-Spanish, a very finely-worked sampler of 1727 , a piece of Bokhara work of the 15th or 16th century, with very remarkable figures and animals, the silk work of which was once embellished with gold thread, which has perished, but which is in colour and condition still beautiful. A collection of antique common pins and other articles, of which particulars are given on labels, are in the same room. In two small cabinets in the hall and the large one in the dining-room are some spiralthreaded stemmed and other 18th century glasses, which vary greatly in shape and pattern. In the garden there is, close to the greenhouse, a pomegranate in flower and fruit. I will not trespass further upon your limited time, but I hope that you will look at anything that interests you in the rooms I have indicated, and if Mrs. Richardson and I, or my niece, Miss Rogers, can give any further information about any of the exhibits, we shall be very pleased to do so to the best of our power.

Lord Eustace Cecil, before the party left, expressed the warm thanks of the Club to Mr. and Mrs. Richardson for their kind hospitality, and paid a tribute to the President's tact and organising ability. He also included in the vote of thanks the Honorary Secretary and the Assistant Secretary, complimenting them upon the successful manner in which the outdoor meetings were organised and carried out.

Mr. Richardson and the Honorary Secretary responded, and shortly after the visitors left for Weymouth.

Ixxiv.

lxxv.


HERBERT PENTIN,


## Anniversary

## Rddress of the でresident.

(Read May 9th, 1905.)

addressing you from the Presidential chair for the first time, I cannot help feeling how grateful we ought to be to my two predecessors in office, under whose rule our Club has been gradually built up into its present very satisfactory condition. Our first President (Mr. J. C. Mansel-Pleydell) has entered into his rest after a life of usefulness and successful energy that we might all well try to emulate. Though we deeply regret the loss of our second (Lord Eustace Cecil), we have the great pleasure of knowing that he is still amongst us. Thanks to his liberality, a most important addition has been made to the resources of the Club in the form of two medals, which bear the names of our two first Presidents, and have valuable prizes of $£_{5}$ each attached to them. These will be offered for competition annually, and the first subjects are announced in the present programme. The number of our members is higher than it has ever been; we have, thanks to our excellent Treasurer, Captain Elwes, money in the funds; the meetings organised by our Secretary have been well attended and successful; and we have to thank our Editor for one of the best volumes of "Proceedings" yet issued. On the other hand, it is
with great regret that I record the loss by death of some of our members, amongst whom I may specially mention Mr. J. K. D. Wingfield Digby, Mr. W. Ralph Bankes, Mr. Oliver Farrer, and Dr. Lush. The two first will be remembered by many of us as our kind and hospitable hosts, Mr. Digby on more than one occasion; and those who were present at Sherborne last July will specially regret that he should have been for so short a time spared to us. Mr. Oliver Farrer frequently attended our meetings, and was a favourite with everyone who knew him. Dr. Lush was rarely able to join us, owing to the careful attention which he always gave to his medical duties, but was well known to many of us.

The past year has been fraught with changes in the ideas of scientific men regarding the constitution of the things around them. A short time ago it had been supposed that at least the fundamental theories of matter were not likely to be again disturbed; but both in the organic and inorganic kingdoms recent discoveries have led to the belief that we shall have again to go through processes of upheaval akin to that caused by Darwin's "Origin of Species" or the discovery of the electric telegraph.

## Zoology.

Some years ago Mr. W. Bateson dealt the first blow to Darwinism by pointing out the frequency of cases of discontinuous variation and the importance of the laws enunciated by Mendel in 1864, in accounting for many of the phenomena which occur in the breeding of animals and plants, and are not apparently explainable by the Darwinian hypothesis. Many others have followed in his line of research, and at the British Association meeting at Cambridge last September there was little work done in the zoological section that did not bear directly or indirectly on this new or revived theory of heredity. There are, of course, difficulties, the first of which is clearly to understand the subject, the language used in its study being so
very technical, but it seems not improbable that out of it may, in time, come our next great advance in the knowledge of organic evolution. It seems hardly possible that natural selection can ever be relegated to the position of an exploded theory, but it may have new truths grafted upon it, arising out of the investigations now so closely pursued. The existence of a problematical animal from South Africa, in the region of the Okapi, resembling a huge black pig, is confirmed, and it has been named Hylochoerus meinertzhageni. A new vole, Microtus orcadensis, has also been described from our own small island. Our knowledge of the evolution of the horse has been much increased by the finding of fresh remains in North America, and it has been shown that the age of fishes of the cod tribe, and perhaps others, can be deduced from the rings of growth on their scales, much as that of cows from the rings on their horns. It has been shown by breeding that in a South African butterfly (Papilio Dardanus) there are three distinct forms of the female, each of which mimics a different Danaine species. It is with great satisfaction that I learn that the Chartley cattle, which have been kept continuously in Chartley Park, Staffordshire, for about 650 years, have been bought by the Duke of Bedford, and will doubtless be carefully preserved intact, though it is sad that they should be removed from their ancient home. That queer little New Zealand bird, the Apteryx, is to be protected; and it has been demonstrated that terrible scourge, sleeping sickness, is caused by a Protozoan organism, Trypanosoma gambiense, conveyed by a species of Tsetse-fly. Finally, to show how little new there is under the sun, it has been stated by the Governor of Ceylon that native medical books of the sixth century described 67 varieties of mosquitoes and 424 kinds of malarial fever caused by those insects-a fact which the world thought it had only discovered in the last few years. To show the efficacy of modern anti-mosquito measures, I may instance two places in Malay, where in 1902, after these had been carried out for a year, the cases diminished to about one-sixth of those in 1901. After three years they only amounted to about one-eighteenth.

## Botany.

In the present state of botanical science the discovery of a new natural order (Amphipterygiaceec) is an unwonted event. The species live in Mexico and Peru, and have flowers resembling those of the oak. Another important discovery of a different nature is the fact of parthenogenesis, or the fertilisation of seed without the intervention of pollen, in the dandelion and some other plants. A fossil, Sequoia, allied to the Californian mammoth tree (Sequoia gigantea), has been found in the Portland Beds of the Jurassic system, showing that this genus has existed with hardly any change from the times of the saurian. A third recent discovery is also of a geological nature, and reveals the fact that amongst the Palcozoic Cycado-filices, which had been believed to be entirely reproduced from spores, are at least two species which bear seed. The first discovery of this nature was made in 1872 by Mr. W. Carruthers, F.R.S., who is the only surviving representative of our first list of honorary members, printed in Vol. I. of our "Proceedings."

## Geology.

It is difficult to draw a dividing line between the present and past tenants of our globe, and the latter are so associated with geology that it merges into the branches to which I have just been alluding. Our hon. member, Rev. Osmond Fisher, at the British Association meeting at Cambridge, propounded a new and attractive solution of the presence of the remains of Elephas Meridionalis in the Dewlish fissure, preserved in our Museum through the energy and scientific acumen of the late Mr. Mansel-Pleydell. He suggested that the trench was constructed by human agency as a trap for these animals, which were used as food. In connection with this I may mention that the mammoth found in rgor is now set up in the St. Petersburg Museum in the position in which it was found, trying to escape from a crevasse or quicksand. It has now

1xxx.
been possible to prove, through recent discoveries, that the cockroaches of Palæozoic times belong to our modern Order of Orthoptera.

To turn from fossils to the rocks themselves, I may note that our hon. member, Mr. Jukes Browne, has completed an important memoir on the upper chalk; the Royal Commission on coal has promised us $100,000,000,000$ tons of coal, instead of the $90,000,000,000$ estimated in 1871 , though we have used nearly $6,000,000,000$ in the interval ; the Coral Reef Committee has issued its report on the Funafuti boring to the depth of 1,114 $\frac{1}{2}$ feet; natural gas has been found at Aylesbury; and the largest diamond in the world has been discovered, more than three times the size of any former one, and somewhat resembling a goose's egg in shape.

## Astronomy.

The chief astronomical events are the discovery of no less than three new satellites in our system-a ninth (Phœbe) to Saturn and a sixth and seventh to Jupiter-the motion of Phobe being retrograde. Besides these, 32 new asteroids were observed in 1904, bringing up their number to 553. Certain changes upon the moon's surface have been noticed, which lead to the belief that our satellite is still in what may be termed a living state, and is perhaps not yet so entirely destitute of moisture as has been supposed, some appearances being attributed to hoar frost. A repulsive force of more than 18 times the strength of gravity is necessary to account for the tails of comets, and light pressure has been suggested as the cause.

## Seismology.

To return to the earth, our Indian Empire has just been visited by a terrible earthquake of unprecedented severity, causing great destruction of life and property. Whilst it can scarcely be said that seismologists have yet determined with
certainty the cause of these phenomena, the science of their observation has made great progress, so that this earthquake was recorded at Edinburgh, Paris, and Göttingen. Observations tend to show that the earth's axis is displaced by the greater earthquakes to an average extent of 00275 of a second of arc, which somewhat interferes with astronomical calculations of its position at any past or future epoch for geological or archæological purposes.

## Meteorology.

Our knowledge of the upper strata of our atmosphere is undergoing very important modifications through experiments with kites, which are sometimes attached to steamers, and have been raised to a height of about $3 \frac{1}{4}$ miles, and also through the observation of the higher clouds. It is found that at great heights there exists over the equatorial regions a permanent easterly wind of high velocity ; that the accepted theory of a vertical circulation of the atmosphere between the tropics and the poles must be abandoned, together with other conclusions. It is hoped that from a better understanding of these matters, together with such aids as wireless telegraphy, it may be possible to produce more reliable forecasts of weather at no distant date, but the subject is complicated with many difficulties. It is interesting to note that, in spite of their great height and of the absence, I presume, of any protection by conductors, the first recorded instance of a pyramid having been struck by lightning only took place on March 31 st, when several of the immense stones near the top of the second pyramid of Ghizeh were dislodged. It is much to be regretted that the Ben Nevis Observatory has had to be closed for financial reasons, though it had done much valuable work.

## Electricity.

Electrical science continues to make great strides, and it is now possible to send photographs by electricity, though the time
of half-an-hour at present required to send a half-plate photograph 500 miles is too great for practical use. This is effected by a ray of light passing through the photographic film and impinging on a selenium cell, in which the resistance varies according to the light intensity. Wireless telegraphy has been much used in the Russo-Japanese War, and messages have been conveyed over a distance of 2,500 miles. A very important modification has lately been discovered by which the message can be sent in one direction only, thus greatly diminishing the danger of its being read in unwished-for quarters. Wireless telegraphy is now under Government control in this country.

## Chemistry.

In chemistry the progress of organic synthesis continues, so that we now have 200 or 300 organic products, which can be built up synthetically by the chemist, though nothing approaching a living cell has yet been made. That wonderful substance, radium, with its emanation and various rays, occupies much attention, and perplexes scientific men, some of whom incline to the idea that the elementary substances themselves are unstable, and may verify the dream of the alchemist by mutual change; and that the ultimate atoms of matter, so long considered indivisible and indestructible, are merely various forms of electric energy. After this it seems feeble to speak of the discovery of three new elements in the past year, berzelium, carolinium, and " new" thorium. Who could have thought that the twentieth century would have begun by upsetting so many long-established fundamental ideas? A metal, suitably named Tantalum, which has been known to exist for more than 100 years, has only recently been prepared in a pure form, and bids fair to become of great importance, both for electric lighting and in other ways. Though extremely ductile, it is so hard as to be scarcely affected even by the diamond, which opens out a vista of immense possibilities.

## Geography.

In geography the greatest event has been the return of the National Antarctic Expedition, under Captain Scott, which, besides geographical knowledge, has brought back the most important series of meteorological, magnetic, and other observations ever obtained from these regions. Much valuable work has also been accomplished there by the Scotch, Swedish, and German Expeditions. A central plateau of 8,000 feet or more covers a portion of the Antarctic continent, and over this Captain Scott sledged for a week under great difficulties, passing the line where the compass points south, instead of north. The Thibet Mission has penetrated to the heart of that mysterious country, which so few Europeans have ever entered, and added much to our knowledge of it. After an international controversy of more than half a century, the name and identity of Mount Everest, the worid's highest peak, have been settled by fresh Indian surveys, and its original discoverer, Sir Andrew Waugh, has been proved to be correct in his conclusions. A great engineering feat has been successfully carried out in the piercing of the Simplon Tunnel, $12 \frac{1}{4}$ miles long, on February 24th last. It was begun in August, 1888, and reaches a depth of $\mathrm{I}_{\frac{1}{2}}$ mile below the surface, about a mile being the lowest depth at which man has ever been before.

## Archeology.

The most impressive, and perhaps the most important, archæological find during the past year has been that of the Egyptian tomb of Yua and Thua, the father and mother of Queen Teie, wife of Amenhotep II. of the eighteenth dynasty, which has been undisturbed since that period, and has yielded a rich collection, including a chariot and chairs, vases and boxes, mostly covered with gold and painted decoration. Another find, this time at Karnak, consisted of about 450 statues from the third to the twenty-sixth dynasty. The entomology of
lxxxiv.
scarabs has been investigated, showing five genera of beetles, and our hon. member, Mr. R. Lydekker, F.R.S., has also brought natural history to bear on archæology by identifying the animals in Egyptian sculptures and paintings. Interesting excavations continue to be carried on in Crete, Denmark, Glastonbury, and elsewhere, and are about to be commenced at Herculaneum.

## The Migration of Insects.-Hemiptera.

An incident which I had the good fortune to witness has suggested to me that I should say a few words about the habit of insects of occasionally moving in large numbers, as if actuated by a common impulse which is generally termed migration; but perhaps this word, in its usual sense, hardly covers all the observed phenomena of this nature. I describe the incident at some length, as, though there are many records of similar cases in other species of insects, it is rarely that the whole movement comes under observation, generally only the fact that a swarm of the insects was seen; and even here I regret to say that the migration could not be followed out to its ending. On September 26th, 1904, Mrs. Richardson was standing by a small pond in one of our fields at about ir a.m., when she noticed that there was something unusual going on amongst its inhabitants, and called me to see it. The pond is a shallow one, never dry, like many of these field ponds, about seven or eight yards in diameter, and there is a similar slightly larger one on the other side of the hedge. It is a good deal shaded by trees, and the approach to it is soft mud. Numbers of waterboatmen (Corixa Geoffroyi, Leach), were coming up out of the water to the edge of the pond, parts of the shore being often lined with a rank two or three deep. They mostly remained for a short time in the water, on the surface, within an inch or two of the shore, and as soon as the sun came out, which it did at frequent intervals, they began to fly away. They generally took one or two turns in the air before they finally departed, and at
times it looked as if a swarm of bees was flying about above the part where they were congregated, their flight being not unlike that of bees, but rather slower. They finally flew off, rising to a considerable height in the air, all in an easterly direction towards the Weymouth Backwater, about $\frac{1}{2}$ mile distant, but whether that was their destination (it is brackish water) or not it is impossible to say. Many of them were not successful in their first start, but landed a few inches off in the mud, whence they found it difficult to rise, and mostly crawled back to the pond to make a fresh attempt. They could, however, rise from the ground just as well as the water, but were incommoded by the soft mud. The number that left the pond must have been very large, for the exodus lasted for certainly two hours, and probably longer ; it had quite ceased by 2.30 p.m., and I estimated the rate of departure as being often as many as from one to two hundred in a minute when the sun shone brightly. Some thousands must have left the pond altogether, far more than I should have imagined it contained. A great many fell a prey to the starlings which were hawking about in an unusual manner in considerable numbers at a little distance in the line of flight of the insects, and some were eaten by fowls on the shore. More would have been destroyed in this way but that the fowls sank in the mud and did not dare to go quite close to the edge. A few (perhaps twenty or thirty) large water beetles (Acilius Sulcatus, Linn.), came to the edge of the water and sat on sticks, \&c., which projected above its surface, and some crawled up the mud, but we only saw four actually fly away, so that the migratory impulse did not seem to be so strong upon them as on the boatmen. I did not see any other insects migrating unless it were one or two small beetles, but I am not sure about these.

Nothing unusual appeared to be going on in the adjacent pond to the west, which is generally well populated and also a permanent pond. There was hardly any wind, none at all being perceptible on the pond, but what there was came from
the west, and it was rather a warm day for the season. Under ordinary circumstances one sees a few of the water-boatmen occasionally in the pond, but they never seem to be particularly numerous.

No further migration from this pond was observed until October ith, when, between eleven and twelve in the morning, the day being warm and sunny, another smaller species of waterboatman (Corixa Fabricii, Fieb.), was seen to be migrating in considerable numbers, though not to the same extent as the larger species in September. They continued until about 2 p.m., when the flight ceased. They did not swim to the edge of the pond like Corixa Geoffroyi, but seemed to rise straight from the bottom and fly up from the surface of the water. They then circled round higher and higher until they were lost among the branches of the surrounding trees, but some, after taking a turn or two over the water, flew straight away down the field in an easterly direction, the same as that taken by the larger species. Whilst the flight was going on a few of them paddled about on the surface in a sort of dance, but these did not seem to fly away like those which came up straight from the bottom of the pond. No migration of any sort was going on in other ponds in adjacent fields. These water-boatmen, like the rest of the winged Hemiptera, only acquire wings in the last stage of their development, and the probability is, therefore, that they were all bred in the pond from which they migrated. It may be that they had only lately passed the stage which corresponds to the pupa stage of a butterfly, and that the recent acquisition of wings had something to do with the strong impulse that had come over them to use them. These insects are carnivorous, and it might well be that they had cleared the pond of most of the suitable food, and were driven by hunger to make their escape as soon as they had acquired the means of doing so in the shape of wings. This also furnishes an explanation of the two distinct migrations at different times of the two different species, as it is likely that all
the individuals of the same species would acquire wings at about the same date, and then fly on the first suitable day, whilst the others might all attain their imago state at the later date.

I have always understood that these small ponds were believed to be stocked with water-beetles (and I suppose any other winged water insects such as water-boatmen) by immigrants flying from other pieces of water, but I have not come across any account of a migration such as the present one, though it must surely be of not infrequent occurrence, and likely to be observed by those who keep their eyes open for such things. It is not even mentioned by Mr. Tutt, whose valuable papers on "The Migration and Dispersal of Insects" (Entomologist's Record, Vols. X., XI., XII., XIII.), have brought together an immense number of observed instances in the case of many species, and to whom any writer on the subject must be greatly indebted.

The only other insects in this order which appear to be known as migrants are the cuckoo-spits, of which one case of migration is recorded, and the Aphides or plant-lice, more familiar to many under the name of green-fly. Of these migrations there are two totally distinct sorts. In the first, which is, I believe, confined to certain species, there is a regular annual movement from one species of plant to another, caused by the dying away of the first kind of plant and the necessity of seeking fresh food. Lichtenstein has traced, amongst others, this migration in the hop Aphis (Phorodon humul), which feeds on the hop plant whilst it is green, but in the autumn, when the hop plant dies back, it migrates to plum trees (Prunus sp.), on which it remains until the hop is again fit for its reception. Parthenogenetic viviparous reproduction takes place on both plants, but eggs, which survive the winter, are laid only on the Prunus. Many of these species which migrate in this manner have been known for long and supposed to be distinct species, attached to two distinct plants.

The second form of migration of Aphides is much more generally known, and is probably familiar to many of the members of our Club. The most abundant form of, at all events, some of the commoner species of Aphis, is a wingless one, and the rate at which these insects increase is something extraordinary, even for insects. But under certain circumstances, notably a continued drought or lack of green food, winged forms are developed, and at times these give rise to clouds of the insects flying in the air in countless millions. Such swarms are not uncommon, but I am not aware that any definite destination has ever been proved to exist for them. They, and also, I think, many other dark and misty states of the air with which they have no connection, go by the common name of a "blight." When I have seen these swarms, they have appeared to me to be rather hovering aimlessly in the air than pursuing any definite course, but there are many records of enormous masses of their dead bodies being found on sea coasts, carried there, I believe, by the wind, and not by their own desires. Gilbert White gives an account of a swarm at Selborne on August 1st, ${ }^{1785}$, which covered everything with a black coating. And there is a record of a mile of beach between Bournemouth and Poole being covered with a green line of Aphis bodies at high-water mark. There are also records of these swarms being accompanied by species of Coccinella or ladybirds, which devour them, and of flies of the family Syrphida, the larvæ of which prey upon Aphides, the eggs being laid on leaves tenanted by colonies of them.

## Orthoptera.

'Though, fortunately, in this favoured country we rarely see even isolated individuals, and never suffer from their attacks, yet both in the Old and New World the migratory insects most dreaded by and most injurious to man are certain species of the locust tribe. The migrations and depredations of these insects have been the constant theme of writers, and a volume might be
filled with their accounts of them. The earliest record of their ravages as one of the plagues of Egypt shows how much they were dreaded at that remote time, and also brings forward one or two points in their habits which still specially characterise them. One is that they often travel for very considerable distances before settling down anywhere, and, therefore, come suddenly without notice. Another is that they are much under the influence of the wind, and are liable to be carried along by it and perish in the sea, if it should take them in that direction, much as the swarms of Aphides seen on the Poole coast.

Pliny and other ancient authors speak of the swarms of locusts, and the records increase immensely in number as we approach our own times. Their habits have been most carefully investigated in Algeria and North America. As we shall see a little later on with regard to the Lepidoptera, some locusts have the remarkable habit of migrating, not only in the perfect state, when they are furnished with wings, but their larvæ, which resemble the imagines except in being destitute of these organs (just like our ordinary grasshoppers), undertake most extensive migrations upon their own account. These have been watched in Algeria, and it is found that with regard to the species Schistocerca peregrina the larvæ continue the migratory movement started by their parents, which generally come in vast swarms from the south, flying by day, and laying their eggs in a suitable locality. The larvæ move onwards slowly at first, devouring as they go, and when about 35 days old, and nearly ready to assume the perfect state, cover as much as three miles in the course of a day, and may travel altogether 25 miles or more from the place where they were hatched. After they have acquired their wings they continue to eat with still greater voracity, and after a time, when food becomes scarce, start on a fresh migration which generally takes place southwards.

From other accounts it would seem that locusts are not usually so regular in their habits, but are much more uncertain
in their appearance. One of these plagues, in $17 \% 4$, in South Africi, is said to have been so extensive that an area of 2,000 spurare mile was covered with the locusts, which destroyed everything green. A north-west wind drove them into the sea, where they formed a bank three or four feet high along so miles of the shore. Immense numbers of people have perished in similar visitations at different times, both from the famines cansed by the ravages of the locusts and also from pestilences generated by their dead bodies, when accumulated in the manner described above.

Africa is, par excellence, the home of the locusts of the Oid World, but they have at times caused great devastation in parts of Asia, from Arabia to China. India is sometimes visited by enormous flights of these insects, as in $187 \%$, when the Madras Presidency suffered greatly from the attacks of the same species as that specially observed in Algeria. In Europe locusts seem occasionally to migrate northwards in great numbers, and spread over many countries, stragyler\% sometimes reaching our own shores. In A.D. 591 and 1478 Italy is recorded as having suffered greatly, Russia in 1630 , Spain in 1841 ; but the fact that they become much more frequent, as records are better kept, suggest that these are but a few out of many such plagues in carlier times. In North America, where entomology is much better looked after by the State than in most countries, it would seem that serious attacks occur on an average about once in eleven years, depending upon the specially favourable conditions of the season for the production of large numbers of the perfect insects. Very extensive reports have been published on the subject in the year $187^{8}$ and subsequently. The chief species concerned is Melanoplus sprelus, the Rocky Mountain locust, which migrates from Montana towards the south and south-east, sometimes in immense and most destructive swarms. These locust, have been known to travel as much as 2,000 miles in their migration, starting in July, flying like the Algerian Schistocerca peregrina during the daytime only. It seems
probable, but is hardly no well extablished, that return migrations take place in the spring of the progeny of the swarm of the previous summer. They are much influcticed in their speed by the wind, and sometimes fly at a great height.

With regard to the perishing of the swarms of locusts in the sea, it is interesting to note that locust have been taken at sea at great distances from land, both singly and in numbern, so that the being blown out to sea is not always immediately fatal to them. Some of these records are as follows:-On November $218 t$, 1811, when the ship Georgia was 200 miles from the Canary Islands, the nearest land, an innumerable quantity of locusts alighted on the vessel, and many more fell into the sea. This continued for an hour. On September 13th, thaco, the Levant encountered a severe gale in isdegr. N. Lat, the nearest land being 450 miles distant, and was surrounded by large swarms of locusts during two days, which settled in numbers on the ship. Two days afterwards it sailed through masses of them in the water. Darwin states that a large species of Acridium flew on board the Beagle when the neareat print of land, not directly opposed to the trade-wind, was 3,0 miles distant, and Scudder crowns the series by recording that on November 2nd, 186., a ship between Bordeasx and Eoston continued to pass through a swarm of Schistocerca peregrina for two dayn, when 1,200 miles from the nearest land. When we read of the falling of dust at sea in quite appreciable quanticies, we cannot but feel that the wind, which can transport coarse dust and stones larger than one-thousandth part of an inch square for 300 miles or more, may well carry a swarm of locusts or butterfics or other insecte, which to a certain extent support themselves in the air, to these distances. Darwin, in "Voyage of the Beagle," in speaking of these falis, says: "The dust falls in such quantities as to dirty everything on board and to hurt people's eyes," and mentions the occurrenice of the minite stones referred to above, also stating that duat has been known to travel in this way 1,000 and 1,600 miles. The travelling of
volcanic dust in the eruptions of Krakatoa and others is even more remarkable.

## Neuroptera.

The migratory tendency is well developed amongst the Odonata or dragon flies, especially in some species, and many cases have come under observation. Libellula quadrimaculata, one of the larger British species, which is found also in many other parts of the N. temperate zone, is one of the most frequent migrants in this group. One interesting account of such a migration is as follows (abridged from "Nature," July 19th, 1883):-On Sunday, June 24th, 1883, at Malmö, in Sweden, the dragon flies passed over for about half-an-hour in the afternoon. The next day, about one o'clock, they re-appeared for more than an hour ; but on Tuesday, the 26th, at 7.30 a.m., they again began in millions, and, notwithstanding the wind had shifted to the south during the night, they held the same course of S.E. by E. The streets, shipping, and every place were full of them. They did not fly very high, and seemed to avoid going into the open doors and windows, but alighted on the trees. The flight ended that night at 8 p.m., having been incessant for more than twelve hours. On the 27 th they appeared again at noon in reduced numbers, and a few on successive days afterwards, the migration ceasing with the advent of hot weather. Other flights have been recorded off the Essex coast on June 23rd, 1888, in Heligoland on May 2 rst and 22nd, 1889, all disappearing on the 26th with a change of wind to northerly, and on June 6th of the same year a small flight at Dover. A large migration of this species is said to take place yearly from N. to S. in the Charente Inferieure, in France. Another species which has the migrating habit is Libellula depressa-known in this neighbourhood and probably elsewhere as the "horsestinger," though it is, of course, destitute of any sting. A compact band passed over Königsburg in June, 1852, 60 feet wide and about 10 feet deep, and from the details given must have extended for a length of 60 or 70 miles.

The smaller dragon flies also migrate at times. A cloud of some species of the genus Agrion has been observed in Suffolk flying inland, which cast a slight shadow over a field of four acres in passing.

In La Plata immense flights of Eschna bonariensis occur, and generally precede one of the violent winds which are common to that district, the dragon flies flying in front of the wind at great speed.

Like other insects, dragon flies have been taken at great distances from land, e.g., on the P. and O. steamer Victoria when 200 miles from Keeling Island, the nearest land, and 900 miles from Australia.

## Lepidoptera.

From the general attractiveness and the interest attached to their transformation, no Order of insects has been so much studied or collected as that of the Lepidoptera, and hence it is amongst the butterflies and moths (excepting, perhaps, the locusts) that we find the records of migrations most numerous.

To take first what is nearest and most familiar to us, we in England are indebted to this habit for the not infrequent presence among us of some of our finest and most beautiful species which often come to our shores, but never seem able to settle permanently in our midst. At our last meeting, on February 2 Ist, I exhibited a fine specimen of Deilephila livornica bred from an egg laid by one of these immigrants taken 'at Ferndale, which is in Dorset, though near Bournemouth, in Dr. Crallan's possession, and also shown by him at the meeting. The year 1904 was one which will be remembered by entomologists as a most fruitful one in that particular species, but it may be assumed almost with certainty that none of the progeny have survived the winter, and we shall have to wait for a fresh
migration before we again see this splendid hawk-moth in this country. Several other hawk-moths are amongst our regular migrants, notably Sphinx convolvuli, which must reach us in immense numbers, as it is often quite common locally and of very general distribution. A record of fifty or sixty in a season in one garden is not unusual, and yet there is every reason to believe that none of these survive the winter, though some may be the produce of moths which have migrated here in the spring.

There are many other species of moths, besides hawk-moths, which must reach us in this manner, the unexpected captures of them taking place occasionally, sometimes singly, more often a few in different localities, but they never establish themselves, and we cannot assign their sudden appearance to any other cause. At the same time great caution should be used in distinguishing between a true immigrant and a species which, from some unknown cause, is either always rare, or is very variable in its appearance. It must be the experience of any entomologist who has observed the habits of moths in nature that with most species, whatever may be the causes, the numbers met with in the same place in different years fluctuate very greatly, so that in some years a moth will not be observed at all, whilst in others it is comparatively common. Considering the very large number of eggs laid by most insects, there would be no difficulty, other things being favourable, in their multiplying themselves a hundredfold in one season, which would be quite sufficient to account for an unusual abundance without any migration.

Two of our most regular visitors amongst the butterflies are Vanessa Cardui and Colias Edusa, better known to most of us as the Painted Lady and the Clouded Yellow butterflies. The striking and brilliantly yellow appearance of the latter in its flight is such that, if it is here, it cannot well help being observed, even by non-entomologists, which cannot be said of most of the moth immigrants.

I am not aware that Colias Edusa has ever been observed on its way here from the Continent, so that any statement as to the origin of our specimens must partake of the nature of a theory ; but we may, without much hesitation, assume that it comes from the South of Europe-perhaps France. It is most uncertain in its appearance, and several years may pass with hardly a record, when suddenly it is seen in swarms. A few specimens will migrate here in May and lay eggs, from which a brood emerges in August, but the extreme abundance of the insect in that month in certain years would suggest a migration at that time also. In 1892 the lucerne and clover fields were alive with them, but the records since have been comparatively few.

The migration of Vanessa Cardui, the Painted Lady, have been perhaps more followed than those of any other butterfly. It is well known as a migrant in Europe, and also to a certain extent in America and elsewhere. Like the Clouded Yellow, it comes to us from abroad and produces a brood in this country; but it is not able generally to survive our winters and establish itself permanently, so that it would soon cease to be a British insect were it not for fresh aliens. It is a much more regular visitor than the Clouded Yellow, and is seen here in most years.

In 1879 the migration of these species was recorded by many observers at a good many different places in Algiers, Spain, France, Italy, Switzerland, Belgium, and Great Britain, so that its course could be more or less clearly traced. The swarm appears to have left Africa about the middle of April, passing through Spain in the latter half of the month and beginning of May, France towards the end of May, and spreading into Switzerland and North Italy by early June. By mid-June some of the butterflies had reached Germany and Austria, Belgium, and England, penetrating into Scotland. The numbers in this country in 1879 were unusually large, but Mr. Tutt states that in 1880 the insect was very scarce everywhere, though in England
it seems to have been a good year for other migrants, notably Vanessa Antiopa, the Camberwell Beauty. I also find a note (E.M.M., XVII., 169), to the effect that in the New Forest the spring specimens in 1880 were plentiful. It would seem likely that many of them, at all events, had been bred in this country and hibernated here.

I have alluded to the occurrence of other species of insects at great distances from land, and this has often happened with regard to Lepidoptera. From a number of instances given by Mr. Tutt I mention a few of the most striking. In a cyclone 200 miles from the Cape Verde Islands, a great number of birds and butterflies, including many Vanessa Cardui and Hypolimnas misippus, came on board the ship Whinfell. Lucas records that, when $\mathrm{r}, 000$ miles from Brazil, a number of moths of perhaps a dozen species came on board his ship, and there are numerous other records of a similar nature where several species are involved, which seem of a different class to those in which a swarm of one species only was seen. The Pleione, when 440 miles from the nearest point of the American coast, was surrounded by an immense swarm of Deiopeia pulchella-a weakflying moth which occasionally visits this country. Hypolimnas misippus was seen in great numbers by Captain Ellis in May, 1893, more than 500 miles from land in the Atlantic. Though, as we have seen, considerable migrations take place to our own shores, yet they seem to be of no importance compared with those that occur in other parts of the world.

In North America large migrations take place, but apparently not to the same extent as in the southern half of the Continent. One of the most striking was noticed in Bermuda on October 1st, 1874, when a cloud was seen approaching from the north-west, which was discovered when it reached the shore to consist of an immense swarm of a small yellow butterfly, Eurema lisa, which must have travelled across the sea for at least 600 miles from America. The fishermen near the island reported that the
butterflies were in such numbers that they completely covered their boats. It is recorded by Webster that on May 14th and 15th, 1888, the shores of the St. Francis River in Arkansas were literally lined with butterflies of the species Apatura Coltis, and that, on landing, one was surrounded immediately by a cloud of them. There is apparently nothing to show that these had not been bred upon the spot; but this species is known as a migrant from other records in the Mississippi and elsewhere. Another great North American migrant is Eugonia Californicaa species somewhat allied to our Painted Lady, of which there are records from San Francisco, from Mt. Shasta, in California, a mountain 14,440 feet in height, where it was met with within a few hundred feet of the summit, far above the snow line, flying in countless numbers in a south-easterly direction. From east to south-east seems indeed to be the most usually observed direction of flight of these North American migrations of butterflies.

A fine species of butterfly, Danais Archippus, which has occasionally been taken in England and is of world-wide distribution, probably through its migratory habits, is one of the most noted North American migrants. There are many recorded instances to show that it has a habit of collecting together in enormous numbers into a small area in the autumn, and then migrating in a southerly or south-westerly direction. One account on September 23rd, 1886, from West River, Maryland, states that about 7 a.m. there were an innumerable number of these butterflies at all heights from 100 feet upwards to beyond the range of vision, flying south-west in the face of a stiff breeze.

There is said also to be a migration northwards in the spring of those that went south in the autumn after their hibernation; but this would seem doubtful and improbable, and the facts in support of it are not nearly so numerous or weighty as those which prove the autumn movement. In South America it would
seem as if the migrations were more frequent. Bell speaks of bands of butterflies (Timetus chiron) 50 yards wide, all travelling to the S.E. in Nicaragua, others of the migrations of species of Urania, large and handsome day-flying moths, in Brazil and Texas, Panama, and lower down at various places as far as Rio Janeiro. The directions seem to vary, being sometimes the south, west, north-west, south-east, east-in fact, the direction seems quite uncertain. One observer, Friedrich, states that every year there is a great migration of newly-emerged specimens of two species of Urania from Vera Cruz, in Mexico; commencing in April and continuing for three or four weeks in a northerly direction along the eastern slope of the Cordilleras. He says that they return by the same route five or six weeks later in greatly reduced numbers, the females having laid their eggs. Should this be correct, it would follow that many must refrain from taking part in the migration in order to produce a sufficient number of moths for the corresponding migration of the next year. A similar migration to that on Mount Shasta is recorded from South Africa, where great numbers of butterflies of the species Callidryas florella and rhadia were observed moving steadily eastwards from the valleys to the highest peaks of the Maluti Mountains, in Basutoland, 10,000 feet above the sea.

In a few of the cases of migrations the butterflies are stated to be all of the male sex, but in others both sexes were present.

There are cases on record of the migration of caterpillars in great numbers ; e.g., the larvæ of a Noctua in Tasmania, which are described as deserting a ploughed-up barley field, and passing in a body up the road, through two gardens, and into a grass field. Another case is given in an American newspaper, the Charleston Courier, May, 1842, which states that the migrating caterpillars filled the railway for more than a mile, and that the train in passing over them made the line so slippery that it was unable to proceed.

The well-known habit of Cnethocampa processionea and some allied moths, whose larvæ march out to feed in long columns, hardly comes within our subject, though the gregarious method suggests some connection with a regular migration.

## Coleoptera.

With regard to the migration of beetles, I may refer in the first place to the moving of water beetles from one pond to another, and I cannot help thinking, from what I saw last September, that considerable numbers occasionally migrate together, as with the water-boatmen. However, that is something to look out for in the future. Darwin records the occurrence of numbers of living beetles, of both aquatic and land species, at a distance of 17 miles from the South American coast, and there are other records showing that beetles which usually live in fresh water can exist in salt. There are records of beetles, as of many other insects, at considerable distances from the land, but the subject of their migrations may occasionally become involved, owing to the fact that after a flood immense numbers of beetles are sometimes met with on the banks of the river, and some of the records of great numbers found together appear to be possibly due to other causes than migration ; such as one where the seashore below the cliff near Ramsgate was covered with multitudes of beetles of many different species, apparently blown over the top of the cliff.

Another class consists of records of large numbers of beetles on the tops of mountains, where they are supposed to have been brought by air currents, but this explanation seems hardly sufficient.

Vast numbers of cockchafers have appeared at times and rivalled, in the banks formed by their dead bodies, those of the dead locusts already referred to. In Kent and Sussex migrations of lady birds have been observed, and in South America large
migrations of various beetles. For instance, Buenos Ayres was visited in two consecutive springs by swarms of Harpalus cupripennis, which arrived at dawn for eight days in succession, and had to be swept away every morning from the outside of the houses, where they were (so it is stated) piled up to a height of several feet.

## Diptera.

The genus Syrphus seems perhaps, amongst the Diptera or flies, to be that most given to migration, at all events in this country, and there are various records of great swarms observed in different places. Some of these are, no doubt, connected with the movements of Aphides, but others do not seem to be so accounted for. There are one or two records from Dorset, which may be interesting here, one being of a swarm of Syrphus pyrastri, at Bournemouth in August, 1869, and of a line of their dead bodies extending from Poole Harbour to Christchurch Bay along the seashore. Another record speaks of their abundance in the Bridport neighbourhood about the same time, and the same swarm seems to have visited Eastbourne and the Isle of Wight, and must have been of great magnitude.

The assembling of flies in houses for the purpose of hibernating sometimes takes place on a large scale. In a house I know which stands near a farmyard, where the flies, chiefly of the genus Musca, are doubtless bred, vast numbers enter in this way and form quite a plague, which it seems hopeless to contend against. Everyone knows the determined manner in which gnats and certain other flies will follow their victims, either oneself or a horse or other animal, for long distances, dancing in clouds round them; and this would constitute a kind of migration, for one can scarcely imagine that the flies would return by themselves after having journeyed perhaps several miles. One of the most remarkable fly migrations is that of the larvæ of Sciara militaris, in which vast numbers of these legless grubs, about $\frac{1}{4}$ inch long, join together by their sticky skins, so as to form a
mass several feet in length and an inch or two broad, which creeps along like a huge worm. They finally collect into a ball and gradually burrow into the ground, whence they appear in the perfect state as small black flies.

## Hymenoptera.

The special interest that attaches to the Order Hymenoptera, consisting of the bees, ants, \&c., in connection with migration lies in the fact that the reason for the migration is generally obvious to us, and not so apparently objectless as in the case of so many insects, To take the most well-known case of the common hive bee. When the hive becomes over-populated, the queen leaves it with a portion of her subjects and founds a new community at some distance, and the same thing may occur several times in the same season. This habit is, however, confined to certain species of bee, and is never, for instance, exercised by humble bees or wasps, in which the community does not continue to exist for more than one season. A different form of migration takes place amongst the ants, which would be unable to follow the example of the hive bee, owing to the wingless state of the workers. In the latter part of the summer great swarms of male and female ants issue forth from the nest and pervade the air at some distance from the ground, performing a sort of dance like gnats. All with the exception of a very few pairs are destroyed in various ways, and the few surviving females found new colonies.

White ants or Termites, though belonging to a different order, Neuroptera, have much the same habits, the object of their migration from their native nest being the foundation of new communities.

Both ants and white ants, of certain species, at times make organised foraging expeditions, which bear a certain resemblance to the migration of other insects in that they consist of hosts of
individuals, all moving together and actuated by a common impulse. In many cases, however, they doubtless eventually return to their nest, but while on their expedition they clear off everything eatable that they meet with. Some sorts will enter a house and perform valuable service in destroying or putting to flight all vermin, insect or otherwise, that it contains.

## General Conclusions.

There are numerous records of insect migration, in which insects of various species and of different Orders seem moved by a common impulse to migrate together. Besides the cases I have incidentally mentioned, I will only refer to one, in which Walker notes that, after leaving Tunis in April, 1873, he sailed along the Malta Channel and on to Italy for four or five days through many miles of sea, on which were floating "large brown butterflies, moths of all sizes, and dragon flies, evidently just dead, as they had apparently not been long in the water."

I can hardly think that these had been merely blown out to sea. Butterflies and the weaker moths in a wind go, as a rule, right down into the herbage, and are very safe, though the stronger flying ones will often fly in numbers on a warm, though very windy, night, and appear not to be in the least incommoded by its violence ; at least, such is my experience in this country, and it would require some special and simultaneous movement, such as a migration, to gather together any large quantity of insects, which must be caught by the wind before they have time to hide themselves. The most extraordinary part of this, and of other records similar in this respect, is the extremely mixed character of the mass of insects, which suggests that different species were overcome by a migratory impulse at the same time and started together. As this is no isolated case, it would appear that migration is, sometimes at least, caused by some external condition which acts upon many different sorts of insects in the same manner and produces the same kind of
involuntary impulse as a bright light at night. As to what it is, or how it is generated, we seem to be still in the dark. The tendency to migration is by no means confined to insects, but occurs in many other classes of animals, notably birds; but even amongst them the cause and object is by no means always obvious. In some cases, such as the locusts, the migration might be set down to the desire for fresh food; but why should they fly to the enormous distances over which they travel, when they must pass plenty of good feeding places on the way? Dragon-flies feed entirely on other insects, but they are not likely to obtain them by proceeding in dense columns. It has been suggested that they may migrate, because the ponds in which they were bred, and in which they would naturally lay their eggs, have dried up, and they go in search of new breeding waters ; but I am not aware that there is any evidence that this is the case, and even then it does not explain the concerted action of the swarm, nor have they been seen to make for water as their destination, as far as I know.

The migrations of butterflies seem to be the most objectless of all, for it can hardly be contended that they migrate on account of the desire for food, as it is very little that they eat (or rather drink) in the perfect state, and that only a little honey from flowers, or water. A more probable desire on the part of the female butterfly would be that of finding the food plant of its larva for the purpose of egg-laying; but there is no evidence to show that they only migrate from a district when the food plant is scarce, and two, at least, of the greatest migrants, Vanessa Cardui and Colias Edusa, feed on a variety of plants, and would not, therefore, be likely to suffer in this way. Besides this, some of the records of swarms state that they consisted entirely of males.

We see that a tendency to migration exists, more or less, all through the animal and vegetable world (e.g., the dispersal of thistle down over wide areas), and that it is frequently of great
civ.
advantage to the species which practises it, in enlarging its limits and preventing close inter-breeding, which would be detrimental to it. Again, it is a necessary portion of the economy of some species, as in the swarming of the honeybee. In the great majority of instances, however, we can see no definite advantage, and in the present state of our knowledge, or, I may rather say, ignorance, of the subject, we can only suggest that it is perhaps a habit transmitted from ancestors to whom it was of some special value, the value having now, in a changed condition of circumstances, ceased to exist, except in a few isolated cases.

It is in the power of everyone to observe these phenomena, and it is only by the careful observance and record of facts that we shall ever arrive at the true explanation of Insect Migration.



LISCOMBE-GENERAL VIEW.


## Siscombe: $\mathfrak{t t s}$ Chapel, ZTonasfic

 なoutse and anu.By the Rev. HERBERT PENTIN, M.A.; F.S.A. Ed.

(Read Dec. 14th, 1903.)
 contains no fewer than five ecclesiastical buildings. The Abbey Church, S. James' Church, and S. Catherine's Chapel are well known; but it is not generally known that the neighbouring parish church of Winterborne Whitchurch is within the borders of Milton parish, and that the desecrated chapel in the hamlet of Liscombe is also situated in a part of the ecclesiastical parish of Milton. The ancient hamlet of Liscombe (five miles from Milton Abbey and two miles from Chesilborne, and situated in a beautifurl valley), consists, at the present time, of only one or two houses, the little church ("Liscombe Chapel"), and a monastic barn. In pre-Reformation days the hamlet was much larger, comprising 13 to 20 houses; but since the Reformation the houses have gradually become less in number. An early mention of Liscombe occurs in the foundation charter of Milton Abbey. King Athelstan gave three and a-half hides (between 300 and 350 acres) in Liscombe to the Abbey of Milton. The hamlet is also mentioned in Domesday and in the

Customary of Milton (1318), and, according to the Inquisition of 1312, the chapel of Liscombe was annexed to the church of Milton by the gift of King Athelstan.

After the Dissolution in 1539 the hamlet was sold to a family named Reeves, but the chapel became the property of Sir John Tregonwell, Lord of the Manor of Milton Abbey, and in 1680 the hamlet also passed into the hands of one of his descendants, John Tregonwell, Esquire. But a subsequent Lord of the Manor of Milton (John Strachan, Esquire) sold the hamlet and chapel in 755 to a yeoman, named Miller, whose descendants possessed it for many years. The property, however, now belongs to Mr. Henry Jesty, of Roke Farm, near Bere Regis.
I. But it is the chapel of Liscombe which is especially worthy of attention. This little building, built principally of flint, stone, , and large blocks of rock chalk, is entire, and consists of chancel and nave, divided by a handsome Transition-Norman arch with


CAPITAL, CHANCEL ARCH.
massive rounded columns. It measures in all over 40 feet in length and about $1_{5}$ feet in breadth (the chancel being over 17 feet long and the nave more than 25 feet). The main walls are nearly 2 feet 6 inches thick. The east window and the two other chancel windows are Norman, with some later work inserted. In the east window the insertion work consists of a trefoil, composed of a quadrant on each side, with a semi-circle at the head. [Mr. Niles Barnes suggests that this window may be Transition-Norman or very early 1 3 th century work.]

In the last edition of "Hutchins" there is a record that "in the north-east corner of the chancel is a beautiful niche, eight

head of Chancel Arch.
feet high, with a crocketed canopy" for the statue of the patron saint of the church. (Tradition says S. Mary the Blessed Virgin.) This niche has now disappeared. The ancient windows in the nave have perished, and the old west doorway has also disappeared. And the chapel of Liscombe has been desecrated for a long time. The nave of it is now used as a bakehouse (there is a large open grate, oven, and chimney in the centre), and the chancel is used as a log-house. A flight of stone stairs has been erected in the chancel, which leads to the bedrooms over the bakehouse and log-house. The bedrooms have been ceiled, and the whole interior of the little church has been whitewashed (including the handsome chancel arch). The plaster ceiling, however, is breaking down in places, and damp is coming through the walls. The roof of the building is of thatch. There are two fragments of stone pinnacles lying loose in the chapel, and modern windows have been inserted in the nave, and a modern doorway erected at the west end of the chapel. An ancient stone sundial has also been inserted in the west wall. Warne, in his Ancient Dorset, states that the chapel is credited with being "tenanted by a supernatural visitor."
II. The house adjoining this desecrated sanctuary is also ancient, built chiefly of flint and stone. It contains several interesting windows of various dates (including a loup in the east wall) and an old stone sundial on its south wall. The interior contains a great deal of old oak work, some of which may be pre-Reformation. 'This house is now used as a labourer's cottage; but there is a tradition in Milton that this house was formerly inhabited by the monks, who ministered ("Divina celebrant:") in the little church. And the building itself, from its position and evident antiquity, lends colour to the tradition, but there are marks that it became the manor farmhouse after the Dissolution.

There is also a tradition that the stream which now runs through the hamlet was formerly larger than it is now, and that there were fish ponds close by, and that the monks at Liscombe


EAST WINDOW, CHAPEL.

1.-LOOP LIGHTING STONE CIRCULAR STAIR, COTTAGE.
2.-EXTERIOR NORTH WINDCW CHANCEL, CHAPEL.
3.-EXTERIOR EAST WINDOW, CHAPEL.
supplied their over-lord, the Abbot of Milton, with fresh water fish.
III. The Liscombe monastic barn is about roo feet long and 30 feet broad. It is also built of flint, stone, and large blocks of rock chalk. There is a stone with the letters L. S. and the date 1638 rudely cut thereon; but the main portion of the barn is of considerably earlier date than the 17 th century. There is a modified Queen-post roof and some fine old oak beams. The north end of the barn has been partly pulled down; and the south end, which is partly bulging, has now three buttresses to support it.

It may be added that the hamlet of Liscombe is built on the site of a Roman Villa, and sundry Roman remains have been turned up at various times (Warne's "Ancient Dorset").

And another interesting point about Liscombe is that the Farm pays ios. a year to the parish of Melcombe Bingham, to provide bread and wine for the Holy Communion. There is a tradition that a lady to whom Liscombe belonged was going in her coach, one Sunday, in the winter, to receive the Sacrament at the Abbey Church at Milton; but, on account of a deep snow, she could get no further than Melcombe Bingham. So she made her Communion there; and this was the occasion of the gift.


#  Hear Dorchestex, 1903. 

By H. St. GEORGE GRAY and CHAS. S. PRIDEAUX.

(Read Feb. 1st, 1904.)

$\bigcap_{6}^{A N Y-i n d e e d ~ b y ~ f a r ~ t h e ~ g r e a t e r ~ n u m b e r-o f ~ o u r ~}$ British Barrows have already been opened, but a very small proportion of these have been systematically excavated. The eminent men that we are accustomed to associate with barrow-digging are Greenwell, Rolleston, Pitt-Rivers, Thurnam, Hoare, and Bateman. Of these Canon Greenwell may be considered the father of barrow-digging. The work of Sir R. C. Hoare and Mr. Bateman was unsystematic, whilst that of General Pitt-Rivers was as methodical and thorough as possible.

It was on the lines of Pitt-Rivers that we turned our attention to these Martinstown Barrows, which, fortunately, proved not to have been previously excavated, although several barrows in sight of those under consideration-both on the Ridgeway and elsewhere-bear external appearances of having been opened.

Every facility was offered by the owner of the land, Mr. W. E. Hawkins, who readily acquiesced in the carrying out of the work and evinced considerable interest in the progress of the operations.


## VOЯЯА\& 70 МА」9

OQ คАヨИ,ИWOTZИITЯAM
copl hi astavajxa

## Barrow I.

Its Situation.-This barrow, like Nos. 2 and 3, is in the parish of Martinstown, otherwise Winterborne St. Martin, and is situated at a distance of $3^{\frac{1}{4}}$ miles south-west of Dorchester and $5 \frac{1}{2}$ miles from the centre of Weymouth. Martinstown Church is 6 furlongs to the north of the barrow ; the nearest point of the Ridgeway overlooking Weymouth is 5 furlongs due south. The barrow is $7 \frac{3}{4}$ furlongs south-west of the famous Clandown Barrow, nearly 12 furlongs west-by-south from the centre of Maiden Castle, and about I furlong to the north-west of Mr. Hawkins' Barn.* The central barrow on Four Barrow Hill is $\frac{1}{8}$ mile to the north-east.

Barrow I. is about 487 feet above sea-level and 230 feet higher than the village of Martinstown. (The Ridgeway near is 550 feet above sea-level, and the highest point of Maiden Castle about 432 feet.)

Description before Excavation.-The barrow stands in a large grass field, the summit being at an average height of 12 feet above the surrounding turf-level. It is surrounded by a ditch which has totally silted up except on the south-west, south, and south-east, as shown by the contours on the plan. The approximate diameter of the mound, that is from ditch to ditch, is 103 feet; the diameter at the point where the "old surface line" under the tumulus crops out is about 91 feet. (A depression was observable on the summit of the mound, not shown on the plan: Mr. Hawkins informed us that his sons, a few years ago, had commenced to make an excavation into the barrow, but evidently soon got tired of it.)

During the operations, which extended over six working days, May 22nd to 29th, 1903, not including the time occupied in filling in and turfing over, the writers, in order that they might devote themselves entirely to the work, lived and slept in a tent pitched within a stone's throw of the barrow. The working plan was commenced on the first day; a square, i6r feet on each

[^5]side, was picketed off round the barrow, enclosing an area of about 0.6 of an acre, the plan (Plate I.) being plotted to a scale of 144 to r , in other words 12 feet to an inch.* The contours of 1 foot vertical height show the shape of the barrow and its immediate surroundings within the "square." The highest contour, of course, comes on the summit of the barrow; the lowest on the western side of the plan, showing a fall of 14 feet from top to lowest part in the "square."

Excavation into the Barrow.-As will be seen by the plan, a cutting 6 feet wide was made through the barrow, nearly on the line of the true north and south $\dagger$; and in the centre a crosscutting was dug, to an extent of 13 feet on both sides of the main cutting, from the central picket. Until the completion of the excavation down to the undisturbed chalk (or to about that level) in all parts of the cutting, a pillar was left in the "centre" from which tape measurements could be made. This pillar, which is well shown in the general photographic view of the barrow, was afterwards removed, when no longer of service as a "fixed point" for measuring purposes.

This photograph, taken from the N.N.E., Plate II., not only gives an exceilent idea of the excavation-operations in progress, but also distinctly shows the internal structure of the barrow. A mound of almost pure mould or turf was first thrown over the interments, measuring about 61 feet in diameter, and $8 \frac{1}{2}$ feet in height. $\ddagger$ This was surmounted and entirely covered by chalk rubble (i.e., pieces of chalk mixed with flints and a little mould, which is clearly shown in the sectional diagram). Finally, turf began to form, and a certain amount of

[^6]surface mould would slowly be deposited as vegetable matter decayed. This turf and turf-mould were found to average about 0.6 foot in thickness all through the cutting. The only relics found in this layer were two fragments of Romano-British pottery just under the turf, 2 and 3 on plan and section. In the chalk rubble, only one relic of any importance was found, viz., a flint scraper, at a depth of $1 \frac{1}{2}$ foot ( 4 on plan and section). On the "old surface line" at 1 , but outside the bounds of the internal mound of mould, a large, white, flint scraper, was found. All the other relics were discovered in the mound of mould and on the old surface line on which the barrow was thrown up. The chief flint implements found in this mound of mould were:-A saw, a hollow-scraper of a rare type, portion of a chipped celt, a well-formed scraper, a knife, a fabricator or flaking-tool, and an extremely fine borer. No polishing or grinding was observed on any of the flint implements discovered here. At 5 an important piece of pottery was unearthed,-a fragment of an early Bronze Age beaker; we say "early," in accordance with the Hon. John Abercromby's recent papers on the subject.* In patches near the centre of the barrow im-perfectly-fired red clay was found.

Detailed Description of the "Finds" found in the Cutting.-The following descriptive list represents the relics found in the barrow, other than those connected with the interments. All are marked on the plan, Plate I., and are projected into the sectional diagram at their respective depths:-

## Found outside the Mound of Mould.

I. Large white flint scraper of horse-shoe form, with prominent bulb and good example of conchoidal fracture; depth 0.5 foot, on the old surface line outside mound of mould.
2. Fragment of thin Romano-British pottery, red on outside, greyish-brown on inside, depth 0.3 foot in surface mould.

[^7]3. Fragment of ditto, depth 0.5 foot in surface mould.
4. Flint scraper of oval form, but only slightly worked, depth 1.5 foot in chalk rubble.

Found in the "Mound of Mould" and on the Old Surface Line.
5. Fragment of thin pottery of the Early Bronze Age beaker type, ornamented with lines of square indentations close together ; light red on both sides, black in the interior ; depth 5 feet.
6. Worked flint of no particular interest, depth 3.4 feet.
7. Ditto
" 3 feet.
8. Flint flake, worked and showing indications of prolonged use, depth 4.2 feet.
9. Flint saw (Plate III., No. 9), consisting of a long, narrow, thin flake, with fine serrations along one edge- 21 teeth in a length of 19 mm .; along the opposite edge is a notch, worked, probably used for needle-shafting. Depth 6.2 feet.
10. Grey flint implement (Plate III., No. 10), of a type which has sometimes been described as a hollow-scraper, and almost precisely similar to Evans, ist edit., p. 291, fig. 231, from the Yorkshire Wolds* and Pitt-Rivers, Vol. IV., Plate 3 II, fig. 7, from Martin Down Camp, South Wilts (Farnham Museum, N. Dorset). It is of somewhat triangular form, with sides of $40 \mathrm{~mm} . .38 \mathrm{~mm}$., and 34 mm . respectively; one edge is straight, another is concave, the third convex. One angle is rounded, the others pointed. One face is flat and unchipped, the other face has finely chipped and bevelled edges on the straight and concave side; the convex edge is only slightly serrated and is bounded at about 12 mm . from the edge by a ridge across the implement. The crosssection in every direction is bi-convex. Greatest thickness 4.5 mm . Depth from the surface, 6.7 feet.
II. Butt end of a roughly-chipped flint celt (Plate III., No. 11); greatest thickness 18 mm .; the end is rounded and

[^8]bevelled off from both faces; it shows indications of little or no use. Depth $5 \cdot 8$ feet.
12. An extremely fine flint borer (Plate III., No. 12), consisting of a flint flake with a tapering and projecting spur, so fine that it would serve admirably for boring the eyes of bone needles such as have been frequently found in the French caves. In this instance the two curved sweeps by which the boring part of the tool is formed have been chipped from the opposite faces of the flake, so that the cutting-edges are at opposite angles of the blade, which is of rhomboidal section. Such a tool is, of course, well adapted for boring by being turned in the hole continuously in one direction. The secondary chipping extends on both edges nearly to the base of the instrument. It is composed of greyish-brown translucent flint. The bulb of percussion is well marked on one face and exhibits a good example of éraillure. The very tip of the borer appears to have been broken off. Total length, 30 mm .; width at base 26 mm .; greatest thickness 6.5 mm . Found at a depth of 7.5 feet.
13. Large, oval, flint scraper (Plate III., No. 13), of blackishbrown colour, with secondary chipping at end and on one side ; the bulb side presents a considerable curvature, to a depth of 6 mm . Found at a depth of 7 feet from the surface, at top of the cairn of flints.
14. Long, duckbill-shaped flint scraper, of a slaty colour, with a "squared" scraping-edge, and a well-defined median ridge running along back, giving a triangular cross-section to the implement. Depth $8 \cdot 2$ feet.
15. Portion of an implement of yellowish-brown translucent flint, finely chipped on one face. Possibly the larger part of a fabricator (Plate III., No. I5). Depth 4 feet.
16. Broken flint implement, bearing excellent examples of conchoidal fracture and ripple-flaking. The smooth face exhibits a prominent bulb of percussion. Depth 6.7 feet.
17. Black flint scraper, with a very obtuse bevelled edge at upper end. Depth $7 \cdot 8$ feet.
18. Finely curved, dark brown, flint flake, with four dorsal ridges, the edges slightly worked; at one end is a small finelyworked recess. Depth $5^{\circ} 3$ feet.
19. Flint knife (Plate III., No. 19), of a somewhat long and narrow ovate form ; light yellowish-brown colour; concavoconvex cross-section; finely-worked, particularly along one of the edges, oblique dorsal ridge across the implement. Greatest length, 63 mm . ; greatest width, 27 mm . Depth 8.4 feet.
20. Bluish-grey flint end-scraper, finely-worked; of an elongated type; the under-face presents an ogee curve; the bevelled " business-end" is very acute; outer coating of the flint covers nearly one-half of the chipped side. Depth 8.6 feet.
21. A very roughly-chipped flint scraper, found on the old surface line.
22. Flint arrow-shafter, or hollow-scraper, of a slaty colour; dorsal ridge lengthwise, which bifurcates near base; the notch is almost semi-circular and not finely chipped. Found on the old surface line.
23. Clumsy, white flint hollow-scraper, roughly chipped, having incurved cutting-edges on opposite sides. Found on the old surface line.
24. Horseshoe-shaped flint scraper, with large prominent bulb on its lower face; the bevelled edges finely chipped. It has been in contact with fire. Found on the old surface line.
25. Large flint scraper, with semi-circular bevelled "businessend," rather roughly chipped. The base and part of one side of the scraper are surmounted by a raised portion of the outer coating of the flint from which the scraper was formed, giving an excellent grip for the thumb. The implement shows little signs of wear. Found on the old surface line.
26. Long, narrow, light grey-coloured, flint fabricator, or flaking-tool (Plate III., No. 26), of almost plano-convex section across the middle, well formed and chipped, and having a very smooth surface on both faces, indicating prolonged use; 71 mm . in length; greatest width, 18 mm .; greatest thickness, 10 mm . It presents a blunted, worn, and rounded appearance at the
edges, resulting from attrition against hard substances. Found $1 \cdot 3$ foot above the old surface line.
27. Rough flint implement, of quadrangular cross-section; it appears to have been fractured subsequently to manufacture. Depth 7.8 feet from the surface, at the top of cairn of flints.

Excavation into the Ditch.-During the excavation of the cutting through the barrow the attention of the investigators was also turned to the ditch which apparently encircled the barrow. The spot chosen was at a point where the ditch was fairly well marked-viz., in continuation of the main cutting and on the south, where the surface of the silting was about 1 foot lower than the level of the adjacent land. This cutting was also made 6 feet wide. At a depth of 0.4 foot in mould (29 on Plan and Section), a duckbill-shaped flint scraper was found, having a sharp dorsal ridge and presenting a triangular cross-section. The rounded "business-end," however, shows little indication of secondary chipping. At a lower level-viz., 0.8 foot-a worked flint flake was unearthed ( 30 on Plan and Section). Nothing else was found here but 91 flint flakes and a flint core.* The hard chalk floor of the fosse was reached at a depth of 3.5 feet from the surface of the silting. The width at the top proved to be 10.4 feet, at bottom 4.5 feet. The sides of the ditch were slightly incurved, as shown in the sectional diagram. The filling consisted chiefly of mould, with about I foot of chalk rubble at the bottom.

It is quite probable that the chalk obtained during the formation of the encircling fosse was, after the burial obsequies, thrown over the large mound of mould, and formed the chalk rubble and outer covering of the barrow.

The condition of the sides of this somewhat shallow ditch did not suggest what tools were used in its formation, but, as the writers are of opinion that the date of the barrow should be assigned to a period considerably anterior to the fullydeveloped Bronze Age, the probability is that stone chisels and

[^9]mauls and deer-horn antlers* (picks) were used rather than bronze celts and palstaves in the process of construction. Near the bottom of the Angle Ditch on Handley Down, Dorset, General Pitt-Rivers found the chalk sides of the ditch distinctly scored with nearly vertical indentations, or "spud-marks," which he suggested might have been caused by some kind of spud or palstave being ferced downwards. $\dagger$ The Angle Ditch was proved to be of the Bronze Age, but, judging from the , nature of the relics discovered in it, it appears to be of somewhat later Bronze Age date than the barrow under consideration.

Interments in the Barrow.-The barrow, or rather that portion of it which was excavated-probably not more than one-tenth of the whole structure-produced two distinct interments.

A little to the north of the centre of the main cutting, and on the level of the old surface line, a nearly circular ring or wall of large flints was discovered (indicated on the plan); greatest diameter, $6 \frac{1}{2}$ feet. Within this enclosure, at 26, and at a level of I. 3 foot above the old surface line, the flint fabricator, previously described, was found. On the north-east of this enclosure, jambed between two flints on the inner edge of the ring, and at a depth of 10.3 feet from the surface of the barrow, a bronze knife-dagger was discovered at the spot marked $28 a$ on Plan and Section, and Plate IV. It was, unforturately, fractured near the tip by the weight of the superincumbent material, and was coated in parts by what at once appeared to be the remains of its wooden sheath, in which perhaps the chief interest centres. It is of a somewhat highly-developed form of knife-dagger, and of a type not uncommonly found with interments of about the middle of the Bronze period. In its present state it is $5 \frac{5}{8}$ inches in length, being about $6 \frac{1}{2}$ inches long in its original condition. It

[^10]was provided with three rivets (portions of two of which remain) for attaching the blade to the handle, which was probably composed of some perishable material. The greater part of the blade is, unfortunately, much corroded, but those parts not so affected are finely patinated. It has the usual bevelled edges on both sides of the blade, and is ornamented by two indented lines running parallel to the cutting-edges. The thickness of the blade along the median ridge, which is not very pronounced, is about 6 mm . ( $\frac{1}{4} \mathrm{inch}$ ).

The remains of the wooden sheath of this knife-dagger are extremely interesting, and small portions of it still adhere to the corroded bronze. The rest flaked off the blade when it became quite dry. It was, however, closely examined at the time of its discovery, when it was observed that the fibre of the wood ran transversely and formed a broad band round the mouth of the sheath, whilst the fibres of the wood in the remaining parts were seen to be vertical. "The find" was sent without delay to Mr. C. H. Read, F.S.A., of the British Museum, who, after a careful examination, wrote :-
"There was a carefully-made mouth to the sheath, but I do not quite understand it, for there are no signs of a rebate joining the transverse portion to the vertically-fibred part."

Through his kindness the dagger and remains of its sheath were sent to Sir W. T. Thiselton-Dyer, K.C.M.G., Royal Gardeus, Kew, where the wood was microscopically examined by Mr. L. A. Boodle, who wrote the following report :-
"The wood belongs to a species of Salix (willow). The determination is based chiefly on:-(I) The arrangement and size of the vessels, the simple nature of the perforations of the latter, the size and shape of the bordered pits; (2) the large proportion of fibres in the remainder of the woody tissue; (3) the numerous medullary rays one cell in thickness, the proportional size of the two kinds of cells forming the medullary rays, and the nature of the pitting of the shorter of these cells. The wood of Populus is very similar, but the proportional size of the different cells of the medullary rays sufficiently distinguishes it.

Bark is attached to the wood, but its structure is badly preserved."

Between $28 a$ and $28 b$ (see Plan), a distance of 3 feet, a black burnt deposit * was observed. It was of unusually fine texture, and appeared to be the remains and ashes of a very complete cremation. This material increased in bulk as the excavation was extended westward from $28 a$. To the west of $28 b$ it ceased, and at this point, where the burnt material was most plentiful, three fragments of an ornamental "incense-cup" were discovered, which, on being washed, were found to belong to the same vessel, and to fit together. (Fig. 28b, Pl. IV.) From the circumstances of the finding it was evident that these pieces had been deposited here as fragments. Other portions of the vessel were eagerly sought for, but without success, and only part of the bottom and side of the "incense-cup" were recovered. The rim was entirely absent, but enough remains to enable us to state that the diameter of the base was about $2 \frac{3}{4}$ inches. The decoration on the side, consisting of a twisted cord pattern arranged horizontally and crosswise, is of quite a usual character; but the cup is of particular interest from the fact that it is ornamented on the base-viz., by triangular punch-marks arranged concentrically. These marks are in the form of isosceles triangles, the apex being deeply indented, whilst the base is represented by the surface of the bottom of the cup. Somewhat similar indentations are seen on a Bronze Age vessel in the Dorset County Museum (No. C93) found in the smaller Clandown Barrow in $1882 . \dagger$ Deep triangular indentations are also seen on an urn found in a barrow on the Ridgeway Hill in February, 1837 (Hall Collection, Dorset County Museum).

Near the "incense-cup," and embedded in the burnt material, a small flint flake with well-marked éraillure was found. On the northern side of the enclosure just described nodules of flint were very plentiful, and soon it became apparent that the

[^11]arrangement of them had some significance. (See sectional diagram, Pl. I.) As the excavation was pushed forward in a N.N.W. direction, the nodules were seen to be continuous, and were found at a higher level as the work progressed. It was, therefore, obvious that the flints represented a stone cairn, the precise size of which could only be ascertained approximately owing to its extending considerably beyond the limits of the main cutting on the north-west. The cutting was, however, widened to a certain extent at this point, and it was fortunate that this was done, as a most interesting interment by inhumation, undoubtedly the primary interment, rewarded the excavators for the hard work entailed in removing the greater part of the cairn of flints.

The southern corner of the grave, cut out of the solid chalk, was soon discovered at a distance of $10^{\circ} 4$ feet from the central picket of the barrow in a northerly direction. As the western corner of the grave proved to be 4 feet from the edge of the main cutting, and although, as stated before, the cutting was considerably widened here, this wall or side had to be considerably "underpicked" to afford room to uncover the interment in a systematic manner.

The upper edges of the oblong grave, measuring $5 \cdot 8$ feet by 3.7 feet, having been laid bare, great care was bestowed in removing the chalk rubble which filled the grave. Both above and below the upper edges of the grave a quantity of fragmentary human remains (including pieces of skull, some abnormally thick, in one or two cases 9 mm .) and many flint flakes were found mixed with the chalk rubble and the nodules of flint. At this stage it was found impossible to continue to preserve and count the flint flakes found in the barrow. The investigators, however, think it desirable to record that $\mathrm{I}, 298$ flint flakes were counted, many of the best being preserved.

The skull of the skeleton (Plate IV.), was discovered resting on the bottom of the grave on its right side and facing north-east. As will be seen by reference to the plan and the photograph of the interment (Pl. V.), the skeleton was in a contracted posture,
the vertebral column, however, being fairly straight. The legs were drawn up to very acute angles at the knees, especially in the case of the right leg. The depth from the surface of the barrow, vertically, to the bottom of the grave under the feet of the skeleton was 12.4 feet. Between the skull and knees the food-vessel, represented in Pl. IV., Fig. 31, was found, with the left arm resting across one side of the rim and the right arm underneath the vessel. Although the pot was cracked by the weight of the superincumbent chalk and flints, it was removed from the grave in a fairly complete state. The handle, in which the chief interest centres on account of its rarity, was not lost during the removal of the food-vessel, but was evidently deficient at the time of interment. This is made clear (I) from the fact that the stumps of the handle did not present clean fractures, and (2) because, after considerable search, the missing portions were not discovered.

This rare form of food-vessel is well worthy of a full description. It holds 71 fluid ounces. The photograph (Pl. IV., Fig. 31), represents it at a scale of $\frac{8}{8}$ linear. The exterior diameter at rim averages $7 \frac{1}{2}$ inches (it is not quite circular); height, $4 \frac{3}{4}$ inches; maximum thickness of sides round rim, $\frac{8}{8}$ inch. The sides are almost vertical from the rim to 2 inches below it, from which point to the base the vessel gradually lessens in diameter, being $4 \frac{1}{4}$ inches at the bottom.

With regard to the decoration, the pot is divided into three sections horizontally, each section being separated by a pair of continuous lines of oblong punch-marks conjoined. These lines are very irregular and broken in places, and average $\frac{1}{4}$ inch apart. Each of the two upper sections is ornamented by three rows of lozenge-shaped punch-marks. The lines are closer together in the upper section, and individually the indentations are closer together than in the section below. The length of the lozenges averages 8.5 mm ., and the width 5.5 mm . The lower section is undecorated. The small remaining portion of the handle bears distinct traces of having been ornamented in the same manner as the body of the vessel. The top of the
handle is $\frac{3}{4}$ inch from the rim, the total height of the handle being $2 \frac{3}{4}$ inches. The colour of the vessel is a light reddishbrown ; it consists of clay, apparently without any grains of quartz or other material, and, therefore, is an example of the " No. 2 British Pottery" of Pitt-Rivers.


A food-vessel very closely resembling that under consideration -and especially with regard to its form-was found in a barrow at Frome Whitfield, in which three human skeletons, \&c., were also found (Dorset County Museum, No. Cioi). This food-vessel is ornamented with two bands of roughly-incised horizontal lines, between which are similar incised lines arranged in chevrons. Another one-handled food-vessel, about 27 inches in height, was found in 1895 by Mr. J. C. ManselPleydell in a barrow at Bagber, near Milton Abbas (Dorset County Museum, No. C52). One, apparently very small, from Dorset is figured by Jewitt.* Another of this type, $2 \frac{1}{2}$ inches in height and 4 inches in diameter at mouth, was found before 1868 in the Isle of Portland, with " the handle, or ear, at one side, precisely resembling that of the modern teacup." $\dagger$

* Grave Mounds, p. 106, Fig. 12 . $\dagger$ Archæological Journal, Vol, XXV., p. 49, Fig. 5.

This type of vessel was classed under the head of "Culinary Pottery" by Dr. John Thurnam in his famous paper on "Ancient British Barrows" in the forty-third volume of "Archæologia." He describes pots belonging to this type as being "plain, semiglobular vessels, with bowed handles (one handle), holding about a pint, resembling the common vessels known as pipkins." He figures one in Pl. 29, Fig. 10, from a barrow at Collingburn Ducis (Devizes Museum). A one-handled vessel, with four feet, was found by Sir R. Colt Hoare in a barrow at Woodyates.* With regard to these examples, Thurnam says: "Both were with unburnt bodies and seem to have taken the place of more befitting drinking-cups or food-vessels." $\dagger$

The same applies to the somewhat larger pipkin found by the Rev. J. H. Austen in a barrow on Ballard Down, near Ulwell, in the Isle of Purbeck, 1856 or 1857.

Amongst the small handled cups must be mentioned one from Wereham, Norfolk, 4 inches high, and now in the Cambridge Museum. The British Museum possesses a handled cup from Denzell, Cornwall; height, $3 \frac{7}{8}$ inches. $\ddagger$ A one-handled cup, $5 \frac{3}{4}$ inches high, of quite a different type to our Martinstown specimen, was found in a cist at Balmuick, near Comrie, Perthshire, and is in the possession of Colonel Williamson, of Lawers. §

The Dorset County Museum (No. C64) also contains another interesting one-handled vessel of the Bronze Age, found with a human skeleton in a circular cist 3 feet in diameter, and 3늘 feet from the surface, at Wynford Eagle. \| It is of tankard shape, about $5^{5} \frac{5}{8}$ inches in height, with perfectly vertical sides, and with one bowed handle projecting from the middle of the side. A series of pottery vessels with single and double handles from German barrows is exhibited in the British Museum.

[^12]Beakers, or drinking-cups, with one handle, are also extremely rare. A fine example of this type was found at March (Cambs.) ${ }^{1}$; another at Pickering (North Riding of Yorks) ${ }^{1}$; and another at Appledore (Berks) ${ }^{2}$, in 1828. A one-handled drinking-vessel, height $7 \frac{1}{8}$ inches, was found by Canon Greenwell at Goodmanham, E. Riding, Yorks ${ }^{3}$. Another comes from Denton, near Grantham ${ }^{4}$; and another was found at Brixworth in $1890^{5}$.

Incense-cups, too, in very exceptional cases are provided with handles. Perhaps the two best known examples are those from Darley Dale (Derbyshire) ${ }^{6}$, and Bagnalstown (Carlow) ${ }^{7}$. Another, which originally had four handles, was found at Badbury (Dorset) ${ }^{8}$.

On the east side of the grave the solid chalk had been cut away to form a slight ledge or shelf, shown in the plan. On this ledge, which was sloped off towards the bottom of the grave, the osteological remains of three infants were found, indicated by a star in the plan and a section, and, between them and the contracted human skeleton and handled food-vessel, a smaller food-vessel, no doubt connected with the burial of the infants, was found, and was removed entire. It holds $7 \frac{1}{2}$ fluid ounces. The photograph (Plate IV., Fig. 32), represents it $\frac{3}{3}$ linear; it is $3 \frac{1}{4} \mathrm{in}$. high; exterior diameter at rim $3 \frac{1}{2} \mathrm{in}$.; diameter at base 2 in . ; thickness at rim $\frac{5}{16} \mathrm{in}$. ; thickness at base $\frac{1}{2} \mathrm{in}$. It is of a light reddish-brown colour, and corresponds to the No. 2 quality of British pottery of Pitt-Rivers, without any

1 Figured in The Connoisseur, Vol. IX., p. 185. Now in the Ely Museum. 2 Archæologia, Vol. XLIII., p. 397.
3 British Barrows, Fig. 86, p. 99. Now in the British Museum.
4 Figured in The Connoisseur, Vol. VIII., p. 250.
5 Figured in The Connoisseur, Vol. IX., p. 186. Now in Northampton Museum.

6 Archæologia, Vol. XLIII., p. 358 ; The Reliquary, IV., 205, Pl. XXII.; Grave Mounds, p. 107, Fig. 68. This example was found with a cinerary urn. Jewitt in Grave Mounds gives another (Fig. 70) without locality.

7 Archæologia, Vol. XLIII., p. 365 .
8 Arch. Journal, Vol. III., p. 3̌1.
quartz grains in its composition. The surface of this foodvessel, which is very uneven, has no ornamentation. The west, south-west, south, and south-east walls of the grave presented a smooth face of solid chalk. The sides of the grave in the other parts appear to have been built up with large slabs of chalk.

The skeleton proved to be male, and two views of the skull, viz., norma lateralis and norma facialis, are figured in Plate IV., Fig. 33, at a scale of $\frac{1}{3}$ linear. These human remains, being of considerable importance from a racial point of view, were submitted to Dr. J. G. Garson, Assist. Genl. Sec. of the British Association, and through his kindness we are able to add a valuable Appendix to this paper.

Further excavations are the only means of determining whether the barrow contains any other primary interments in clean-cut graves in the chalk. It will be observed on reference to the plan that the secondary interment by cremation, " 28 B " (with bronze knife-dagger at "28A"), is in a far more central position in the barrow than the primary interment by inhumation.

It seems to the investigators quite probable-although there is nothing to afford proof-that a cairn of flints was thrown over the primary interment and covered, perhaps, by a little mould or turf, and that subsequently (probably at no great interval of time) to the secondary interment by cremation being deposited on the "old surface line" a larger mound was formed, this latter interment being regarded as approximately in the centre of the barrow.

It might be recorded here that bronze knives and daggers are more frequently found with burnt bodies than with unburnt ones. Out of 60 recorded by Thurnam from Wiltshire Barrows, 16 only were found with skeletons, whilst 44 were associated with cremated remains.*

At the conclusion of the operations in May, 1903, the large cutting through Barrow I was filled in and re-turfed.

## Excavation of Barrows 2 and 3.

The excavations at Martinstown were resumed on September 3rd, 1903, and continued for seven working days till September ifth. On this occasion the camp was pitched about a furlong due south of Mr. Hawkins' barn. The spot selected was itself possibly a Bronze Age buriai-ground; the tents were erected in a circular depression which at a first glance might be taken for the site of a formerly-existing pond. We failed to find any evidence of its having been lined with clay. The depression is encompassed by a bank measuring 76 feet in diameter and about 3 feet above the surrounding field, the crest of the bank being about $4 \frac{1}{2}$ feet above the centre of the shallow, basin-shaped depression. The crow-bar was brought into requisition here, and was found to strike hard substance, probably flints, within a few inches of the surface. We believe that these depressions have been very infrequently observed by archæologists elsewhere, although we are unable to say whether any have been excavated.

## Barrow 2.

Barrow 2 is marked on the Ordnance Sheets, and is situated in an arable field at a distance of $\frac{1}{4}$ mile to the S.S.E. of Barrow 1 and only a few feet from the western hedge of the field. Its elevation on the surface was very slight-not more than a foot-for which the plough, of course, is responsible. In a few years' time all trace of it would have disappeared; and it was for this particular reason that we turned our attention to it. Being so flattened, it was thought unnecessary to make any sort of plan of the site.

We started here, in the usual way, by digging a narrow trench north and south, and had only proceeded about a foot below the surface, and the same distance from the end of the trench, when we came on the edge of a grave hewn out of the solid chalk. This edge was traced all round, and in so doing a large quantity of nodular flints, mixed with chalk rubble, was removed,
together with numerous human bones, as well as some burnt bones. The unburnt remains included several nearly entire femora, tibiæ, and humeri. This cairn of flints and its accompanying human remains resembled those found in Barrows I and 3. These flints, which were reached at a depth of 6 inches from the surface, were found to extend within a few inches of the bottom of the grave. Amongst them one flint scraper (Plate VI., top right-hand corner), and a few flint flakes were found; also 15 fragments of pottery of the No. 2 quality of British, including ten small fragments (some ornamented with finger-nail marks) which appeared to belong to one vessel, and a piece of rim decorated externally and internally by lines of twisted-cord pattern (Plate VI., at top). A somewhat similar fragment of rim was found in Barrow 26, Handley Down.*

A continuation of the excavation here resulted in the uncovering of a contracted human skeleton, lying on its right side, at the bottom of a grave cut in the hard chalk. The following are the dimensions of the grave :-

Depth from summit of barrow, $3^{\circ} 7$ feet.
Depth in the solid chalk, $2 \cdot 2$ feet.
Length of grave at top, $7 \cdot 6$ feet.
Do. bottom, $6{ }_{7}$ feet.
Greatest width at top, 5 feet.
Do. bottom, $3^{\circ} 7$ feet.
The grave more or less squared at feet-end, rounded at head-end.
Skull, $\mathrm{I}^{\circ} 7$ feet from S.E. end of grave.
Fairly flat bottom to grave.
Slight ledge on N.E. side, on which a few fragments of the pottery were found.
Smooth chalk walls on all sides except the S.W.
The skeleton was found to be contracted in the general direction of E. $46^{\circ}$ S. It lay rather nearer the N.E. side of the grave than the S.W. side, and the skull was at a distance of

[^13]22 feet from the hedge of the field to the west. The skull, facing north, was much damaged, and the skeleton was not in a good state of preservation. The measurement from top of skull to tip of toes was $3^{\circ} 9$ feet, and the width from right patella to back of pelvis $2^{\circ} 1$ feet. The knees were drawn up at a very acute angle. The left hand rested on the right forearm; the right hand below right side of ilium. The epiphyses of the bones were not attached, the age being about 19 years; probably male. The approximate length of the right femur was taken as 1.475 feet, and the right tibia 1.2 feet, giving an estimated stature, according to Rollet's method, of $5 \mathrm{ft} .5 \cdot 2 \mathrm{in}$.

No relics were found with this skeleton, and being so young and much fractured, and therefore useless for scientific purposes, the remains were carefully covered up, a leaden plate being deposited with it bearing the date of excavation and the names of the explorers.

## Barrow 3.

Its Situation and Size.-Barrow 3 is in the same arable field as Barrow 2, a lane connecting the Ridgeway with Martinstown and Dorchester dividing the barrows from the barn. To be more precise, Barrow 3 is situated 70 feet from the western hedge of the field and 125 paces from the northern hedge. It is also 125 paces to the N.N.E. of Barrow 2 and $1 \frac{1}{2}$ furlong south-east cf Barrow I.

Barrow 3 has, like Barrow 2, been much reduced in height by agriculture and the plough, but not nearly to such a great extent as the much smaller Barrow, No. 2.

A plan was made as the work of excavation proceeded, but contours were in this case considered unnecessary. Approximately, the barrow is 93 feet in diameter, and at the present time about $2 \frac{3}{4}$ feet above the old surface line, at the highest part, although, no doubt, it originally stood as high as the turfclad Barrow No. I. We are unable to say with certainty whether Barrow 3 was enclosed within a ditch, and time did not allow of it being tested.

Excavation of the Barrow.-As in the case of Barrow 1, a cutting was commenced on the south, 6 feet wide, and was extended in a N.N.E. direction * to a distance of 35 feet. Owing to the discovery of graves and various relics-as the sketch-plan shows-the original 6 feet cutting had to be greatly enlarged on both sides as the work went forward. All the ground within the area of the plan was excavated down to the undisturbed chalk.

The miscellaneous "finds," apart from the interments, were numbered from 1 to 20 , and consisted for the most part of flint implements, the majority being scrapers. The most important of these relics were two chipped knives with ground and polished cutting-edges, a few beautifully-formed scrapers, and a thick, circular disc of Kimmeridge Shale.

## Detailed Description of the Relics found in the Cutting.

(All marked in the Plan, Plate VII., and the same numbers are used as Fig. Nos. in Plate VI.)

1. Circular flint scraper (Plate VI.), of a light bluish-white colour, translucent, with portion of the outer coating of the flint on the upper surface; finely chipped all round the bevelled edges; large and prominent bulb of percussion on the lower surface. Depth I foot.
2. Long tongue-shaped flint scraper. Depth I foot.
3. Flint scraper of long horseshoe-shaped variety ; fine ogeecurve on bulb side. Depth 1 foot.
4. Small circular flint scraper (Plate VI.), with a very short tang. Depth $2 \cdot 3$ feet in chalk rubble.
5. Portion of a large bluish-white flint knife (Plate VI.); finely-chipped to a crescentic cutting-edge on one face; on the other the edge has been bevelled by grinding and polishing; some deep facets (some more recent than the time of

[^14]manufacture of the implement) have spoilt the appearance of this face. Found at a depth of 2.3 feet in chalk rubble.
6. Thin scraper of a slaty-coloured flint. Depth 2 feet in mould.
7. Circular scraper of bluish-white flint, chipped all round the edges. Depth 2.2 feet in chalk rubble.
8. Long, worked flake, with longitudinal dorsal ridge. Depth 2 feet.
9. Two flint scrapers, one of circular form; the other of a dark slaty-colour, and of duck-bill form. Depth $I^{\circ} 4$ foot.
10. Thin flint scraper (Plate VI.), of light-brownish colour and horse-shoe shape ; the bevelled edge very finely worked. Depth $\mathrm{I} \cdot 3$ foot.
11. Two scrapers. Depth I•3 foot.
12. Thin, well-worked flint scraper (Plate VI.), nearly circular. Depth $\mathrm{I}^{\circ} 5$ foot.
13. Flint scraper: Depth $I^{\cdot}$ r foot.
14. Flint scraper, with large éraillure on the bulb of percussion. Depth I•6 foot.
15. A large quantity of burnt matter or decayed wood (?). Apparently not a cremated interment.
16. Small, thick, flint scraper, with semi-circular bevelled edge.
17. Fragment of British pottery, without quartz grains, black on inside, red on exterior ; ornamented by three parallel rows of indented bands.
18. A flat, thin, flint knife of somewhat ovate form (Plate VI.); the crescentic cutting-edge, rather bluntly-bevelled by grinding from both faces. On the opposite side is a deep notch, chipped probably for arrow-shafting; both faces of the implement present excellent examples of conchoidal fracture, and it has every appearance of being in continuous use for a long period. It was picked up on the surface of the barrow.
19. Flake, with a slightly-worked notch, of no particular interest. Flint flakes were plentiful throughout the barrow. A few cores were also found.
20. Circular disc of Kimmeridge Shale, diameter 25 mm ., thickness 15 mm . In the centre of both the flat ends there is a slight and small indentation; precise use of object unknown. Found close to the chalk floor, near "Hole." (See Plan.)

Interments in the Barrow.-In the excavation of this barrow we were rewarded by the discovery of three interments of the Bronze Age, viz., two primary ones by inhumation and a secondary one by cremation.

Secondary Interment by Cremation.-Exactly on the line of the cutting on the west side, and at a distance of $15 \frac{3}{4}$ feet from the southern end of the cutting, we firstly came to a pottery vessel, which appeared to be close to the surface of the depressed summit of the barrow, and it was therefore found necessary to clear a space for a foot or two round the pot. The true nature of the discovery soon revealed itself-a large British cinerary urn inverted,* resting on an irregular slab of stone, now measuring about $15 \frac{1}{4} \mathrm{in} . \times 12 \frac{1}{2} \mathrm{in}$., and 2 in . thick, $\dagger$ covering the burnt remains $\ddagger$ of a child (or children) of about 5 years of age, wrapped in what appeared to be a woven bag or

[^15]pouch. We are not aware that anything precisely similar has been found elsewhere; probably the occurrence of textile fabrics in barrows has never been recorded by those who have merely "rifled" barrows. Thurnam, however, quotes a few instances of the finding of textile fabrics with cremated interments.*

Far from the bag being in a condition to remove entire, it


> Portions of a Woven Bag which contained the Cremated Remains of a Child. Barrow 3, Martinstown. was only possible to preserve a few fragments, the best of which are represented in the accompanying illustration. A. represents portion of the external upper margin of the bag, B. being the internal view of the same fragment. Several fragments of C. were found; and it probably represents a piece of the string with which the bag of incinerated remains was tied up. Portions of the bag have been microscopically examined through the kindness of Professor H. B. Farmer, who has sent the following report:-
"The carbonised wrapping, a sample of which you sent me, is certainly not hemp, so far as its condition makes identification possible. There seem to be two, at any rate, plants, one of which is a grass.
"I should say that the twist is made primarily of grass stems, with perhaps the leaves, and that there is an accidental mixture of something else.

[^16]"The grass stem I judge by the occasionally very well preserved epidermis with characteristic cells and stomata. Moreover, the woody parts are sufficiently present to lend confirmatory evidence.
" I cannot say to what species it belonged.
"I think I may quite definitely say that none of the material contained flax. I examined several samples, both of the twisted bit and of the loose fragments, and all of them were alike. There were no long strands such as would suggest flax.
"The fact that the outside skin (epidermis) of the tissue was preserved is strongly against the possibility of flax being the substance used, as this would have been eliminated in the netting processes."

The urn, the base of which was at a depth of only 1.4 foot from the surface, was found in a much shattered condition. The fragments numbered about 150 , and were for the most part in their proper positions. It has now been carefully restored, * and presents a very imposing appearance. It is far above the usual size of a British cinerary urn, averaging 15 inches in height $\dagger$; exterior diameter at rim averages $13 \frac{3}{4}$ inches; interior diameter, $13 \frac{1}{4}$ inches; circumference at most prominent part below shoulder, $43 \frac{1}{2}$ inches; diameter at base, $6 \frac{7}{8}$ inches; average width of the overhanging rim, $3 \frac{8}{8}$ inches. There is nothing unusual about the ornamentation, and the photograph (Plate VIII.) is so excellent that it needs no description. The ornamentation on the inside of the top of the rim cannot, however, be seen. The rim contracts and slopes inwards to a projecting ridge which is decorated with two parallel bands of impressed cord ornament; this is quite usual with this type of urn. The pottery is of a dark brown colour, and contains ho grains of quartz or other grains, and in this respect resembles all the other pottery found in these

[^17]Martinstown Barrows, corresponding, as we said before, with the No. 2 British pottery of Pitt-Rivers.

A somewhat similar and very large urn, with overhanging rim, was found by General Pitt-Rivers in Barrow 24, Handley Hill, North Dorset. It was also inverted, and was one (No. 42) of no less than 52 cremated interments connected with one barrow.* With this Handley cremation one of the very rare bone tweezers was found, $\dagger$ of which only two or three specimens are known from Dorset.

This type of cinerary urn is figured by Thurnam in Archæologia $\ddagger$ from a barrow on Beacon Hill, Mendip; height, $16 \frac{1}{2}$ inches. A similar urn was found inverted over an interment of burnt bones in a small barrow on Lamb Down, Codford, Wilts; it is $16 \frac{1}{2}$ inches in height. § Another was found by Sir R. C. Hoare at Durrington, Barrow 69 ; height, $13 \frac{1}{2}$ inches. II Another of similar form was found by Hoare at Woodyates, $\mathbb{T}$ Barrow 17 ; height, $18 \frac{1}{2}$ inches. Numerous other instances of this type of urn could be cited, but those quoted are sufficient for the purpose.

There are at least three examples of cinerary urns of the type of that under consideration, with overhanging rims, in the Dorset County Museum. No. C8o is an unornamented specimen of this class, height about $15 \frac{1}{2}$ inches, found many years ago in a barrow formerly standing behind Sidney Terrace, Dorchester. Two bronze daggers were found in this barrow when it was destroyed in 1885. Another of "this class is represented by $\mathrm{C}_{7} 8$, about $16 \frac{1}{2}$ inches in height, found with a cremated interment at Winterborne Abbas. A third and smaller

[^18]example is $\mathrm{C}_{37}$, about 11 inches high, found in a tumulus at Bincombe Hewish in 1850.

Close to the urn in Barrow 3 a piece of decomposed granite was found at a depth of $1 \cdot 5$ foot in mould.

## Primary Interments by Inhumation.

Grave 1.-On the eastern line, or boundary, of the cutting, the upper edge of Grave I., at the southern end, was found at a distance of $7 \frac{1}{2}$ feet from the S.S.E. corner of the cutting, and the edge at the northern end at a distance of $14 \frac{1}{2}$ feet from the same point. In removing the filling of this grave it was found that, owing to the existence of two distinct ledges, or steps, of undisturbed chalk, the grave became more contracted as the re-excavation proceeded. The grave, that is from the lower ledge downwards, was found to be more or less elliptical ; length, 5.4 feet; greatest width, 3.7 feet. The bottom was reached at a depth of 5 feet from the surface of the barrow and 2.3 feet below the level of the surface of the solid chalk. The sides of the grave were very smooth on the south, south-east, south-west, and north-east, and fairly even all the way round. The filling consisted of chalk rubble mixed with nodular flints, but not in such large quantities as in Barrow 2, and not sufficient to justify the name of "cairn" being introduced. Interspersed amongst the filling a quantity of bones of young children were turned up, and also fragments of decomposed or burnt wood.

The interment proved to be another contracted one, lying on its right side-a young male; length of left femur, $I^{\cdot} 52$ foot; of tibiæ about 1.3 foot; giving an estimated stature of 5 feet $8 \frac{1}{2}$ inches.

The feet were to the N.N.W.; head to S.S.E., facing N.N.E.; skull much fractured. Length from top of head to toes, $4^{\circ 2}$ feet; width from right knee to lumbar vertebræ, 2.2 feet.

The left humerus was resting across the top of the thorax, the hand nearly reaching right femur. The hand of right arm was
Plate II.

Plate III.


RELICS UNCONNECTED WITH THE INTERMENTS FOUND IN BARROW I., MARTINSTOWN.

Plate IV.


Relics connected with the interments found in barrow l., MARTINSTOWN, 1903.


FLINT IMPLEMENTS AND POTTERY
FOUND IN BARROWS 2 AND 3, MARTINSTOWN, 1903.
(All except the two upper figures were found in Barrow 3.)

## Plate Vil.

Plate Vill.


LARGE BRITISH URN FOUND INVERTED AND CONTAINING THE CREMATED REMAINS OF A CHILD SECONDARY INTERMENT), BARROW 3, MARTINSTOWN, 1903.
(Scale ${ }_{4}^{\prime}$ linear.)
[From a photograph by W. Pouncy.

Plate IX.


Primary interment of the bronze age FOUND in Grave ll., Barrow 3. Martinstown, 1903.
[From a photograph by W. Pouncr.
drawn up over the right shoulder, the angle at the elbow being very acute. The legs were much drawn up, as in all the Martinstown cases; the right knee was within 3 inches of the side of the grave; the right wrist only 2 inches from ditto; the feet almost touched the side of the grave on the N.N.W. The vertebral column was in a fairly straight line.

As in the case of the skeleton in Barrow 2, this skeleton, being in a bad state of preservation and of no interest for anthropological measurements, was covered up after excavation, the usual leaden tablet recording the excavation being deposited with the skeleton.

There is no doubt about the Bronze Age date of this interment, for behind the vertebræ and on the bottom of the grave the base and portion of the side (in fragments) of what was apparently an ornamented food-vessel was found. (Plan, Plate VII., " 21 .") The pot was $3 \frac{3}{8}$ inches in diameter at the base, the sides averaging $\frac{3}{8}$ inch in thickness. It is of the usual soft British quality, black inside and light reddish-brown on the exterior. The indented ornamentation consists of bands of chevrons pointing in opposite directions, with parallel horizontal bands of conjoined oblong punch marks between. The chevrons are filled with elongated indentations, as shown on the small fragment figured in Plate VI., Fig 21.

Grave II.-On the western line of the cutting the S.S.W. margin of Grave II. was found immediately after the removal of the cremated interment, at a distance of 17 feet from the S.S.W. corner of the main cutting, the northern margin of the grave on the same line being 22 feet from the same point. The upper margins of Graves I. and II. were separated by 3.4 feet of the solid chalk floor.

This proved to be the most interesting of the three primary interments found in Barrows 2 and 3, although in much the same contracted posture. It is much to be regretted that no relics whatever-not even a fragment of pottery-were associated with this interment. An excellent photograph of it, in situ, is represented in Plate IX.

This fine grave was hewn to a depth of 3 feet into the solid chalk, the depth from the surface to the bottom of the grave being $5^{\circ} 9$ feet. The N.W. end of the grave had a particularly smooth face; the sides were nearly vertical, the length at bottom being 6.7 feet and the greatest width $4^{\circ}$ I feet.

The skull, which was in almost perfect condition, was found to the north-west, facing in a north-easterly direction. It was $I^{\cdot 1}$ foot from the N.W. side of the grave, the left knee being at the same distance from the E . side. The right toes were 1.4 foot and the pelvis 0.7 foot from the margin of the grave. As will be seen in the photograph, the lower jaw, a somewhat powerfully-developed one, was found at some little distance from the skull, and had doubtless been detached from it previously to the grave being filled in. By-the-bye, the filling of the grave in this case consisted of chalk rubble, with flints in no considerable quantity.

In this instance the skeleton rested on its left side. The left arm was in almost a direct line from the left shoulder to right knee. The right arm was bent at an angle of about $80^{\circ}$, with hand in front of face. The pelvis was in good order, the vertebral column fairly straight, and both the legs drawn up to angles of about $35^{\circ}$. The length from top of skull to toes of right foot was 3.9 feet; greatest width from back of pelvis to left patella, $2 \cdot 3$ feet.

The leg bones were measured approximately as the skeleton -a fully adult male, probably middle-aged-rested in situ; length of right femur, $\mathrm{r} \cdot 6$ foot ; right tibia, $\mathrm{r} \cdot 35$ foot; which gives a stature of 5 feet 11.9 inches-nearly 6 feet.

This skeleton, with the exception of the skull, was also left in situ, and covered up at the completion of the excavations, the usual leaden label being previously deposited.

In extending the excavations on the two last days in N., N.E., W., and S.W. directions, no further interments were discovered, but a hole of uncertain intention, marked on the Plan, Plate VII., was found cut out of the solid chalk. It was not a
natural depression, and in general form was that of an inverted cone with the apex missing ; average diameter at surface of chalk floor 1.8 foot, at bottom 5 inches, the sides tapering off very considerably. The depth of the hole in the solid chalk was $1 \cdot 5$ foot. In it were found the larger portion of an anterior vertebra of a cetacean and part of the tibia of a red-deer (Cervus elaphus);* also a lot of decomposed cellular bone, with some small yellow particles, like sulphur, scattered through the mass.

These excavations at Martinstown, extending over a fortnight in all, have, therefore, in addition to the miscellaneous relics, produced four primary interments by inhumation and two secondary interments by cremation. None of them, we think, judging from the circumstances of the finding, and the relics both associated with them and found in other parts of the barrows, are more recent than the middle of the Bronze Period, and we are inclined to assign some of them to a time slightly earlier in the Bronze Age. As types of prehistoric ceramic art in Britain, it is now generally understood that the beaker was earlier than the food-vessel, and that the cinerary urn was the latest.

## Appendix.

## NOTES ON THE SKELETON FROM BARROW I., MARTINSTOWN, DORCHESTER, 1903.

By J. G. Garson, M.D., \&c.

The human remains placed in my hands for examination by Messrs. Gray and Prideaux consist of a skull nearly complete but which had been much broken, the sacrum, the left innominate, and several of the long bones of the limbs, belonging to one skeleton. There were also sent some small portions of the skull and other parts of the skeleton of one or more infants, but these were so fragmentary that little can be made out regarding them with any degree of certainty. I, therefore, think it better to confine my notes to the skeleton of the more adult individual, beginning with the skull.

[^19]The Skull.-In general form it is long and narrow in respect to both the calvarial portion, or that portion which covers in the brain, and therefore, in popular language, termed the brain-case, and the facial portion. The condition of metopism, that is, of persistence of the mesial frontal suture, which is usually obliterated at an early stage of life by complete fusion of the two halves of the frontal bone, is present and is well marked. There is considerable asymmetry of the calvarium readily noticeable when viewed from above. The left half of the frontal is prominent, especially above the middle and inner third of the left orbit, while the right half falls away, or recedes. Behind, the right half of the occipital bone is bulging backwards, while the left half is less prominent. This obliquity extends to the parietal bones also, and shows itself by the line of the sagittal suture slanting somewhat from right to left as it is traced backwards from the bregma. It is very probable that the asymmetry is due to post mortem pressure upon the skull as it lay in the soil in a more or less damp and softened condition. The ridges for the attachments of muscles are feebly developed, and the surface of the bone generally has a smooth appearance. The orbital processes and the mastoids are small and little developed; the glabella and supraorbital region, excluding the irregularity due to asymmetry, are moderately prominent; the upper edges of the orbits are thin and sharp. The parietal eminences are not prominent, but there is a want of combined fulness and roundness about this region which is at once noticeable. The sutures are open and simple, and there are a few small wormean bones present in the parietooccipital suture. While the ridges on the under surface of the occipital are feebly developed and in harmony with those on the other parts of the calvaria, the bone in the region of the foramen magnum is thick, especially at the edges of the foramen, which itself is particularly long and narrow. The basilar suture is open. The facial portion is in general form long and narrow, as is indicated by the facial indices given below being high. The nasal opening is narrow, but owing to the broken condition of the specimen the nasal height could not be sufficiently accurately ascertained on a short measurement such as it is to warrant a statement of the nasal index. The orbits also are imperfect. Viewed from the side the profile is straight, the alveolar region showing no prognathism as is indicated by that index and the palato-maxillary index. The lower jaw is feeble, and the gonial angle (that formed by the horizontal and ascending rami) is obtuse; the chin is pointed and well formed. The incisor teeth are well developed and sound; the last molars have not appeared above their formative cavities in the mandible, but are just showing on the surface in the maxillæ. The premolars and first two molars show no signs of wear, and are comparatively of small size.

The skull is light and has been broken in many places, and although it has been skilfully restored by Mr. Gray the following measurements are in some cases not always absolutely exact, though sufficiently accurate, perhaps, for practical descriptive purposes:-

| 1. Antero-posterior median length (max.) | .. | 196 mm. |  |
| :--- | :--- | :--- | :--- |
| 2. Transverse breadth (max.) .. | . | .. | 140 |


|  | Basio-bregm | ic height |  | - |  | 148 mm . |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4. | Minimum fro | atal breadth |  | - |  | 101 | , |
| 5. | Bi-asteric br | adth |  | . |  | 110 |  |
| 6. | Bi-auricular | breadth |  | . |  | 119 |  |
|  | Bizygomatic | breadth |  | . |  | c127 | " |
| 8. | Bimalar brea |  |  | . |  | 115 | " |
|  | Maximum bi | maxillary br | dth | $\cdots$ |  | 93 | " |
|  | Minimum bi-maxillary (Palato-maxillary) breadth. |  |  |  |  | 65 |  |
| 11. | Basio-nasial | ength | . | - |  | 109 | " |
|  | Basio-alveola | $r$ length | . | $\cdots$ |  | c96 | " |
|  | Nasio-alveola | $r$ length | - | . |  | c82 | " |
|  | Nasio-menta | length | - | - |  | 129 | " |
| 15. | Nasal breadt |  | . | . |  | 23 | " |
|  | Palato-maxil | ary length |  | . |  | 53 | " |
| 17. | Horizontal ci | cumference | . | . |  | 534 | , |
| 18. | Auriculo-breg | matic arc | . |  |  | 326 | " |
|  | Total transverse circumference ( $6+17$ ) |  |  |  |  | 445 | " |
| 20. | Frontal arc |  | .. | . |  | 135 | " |
| 21. | Parietal arc | - | . | - |  | 134 | " |
| 22. | Occipital are | -• | -• | - |  | 116 | " |
| 23. | Foramen mag | num length | * | - |  | 43 | , |
| 24. | Nasio-bregma | tico-basial le | ghth | - |  | 428 | ,' |
| 25. | Total longitudinal circumference ( $11+24$ |  |  |  |  | 537 | " |
| 26. | Bigonial breadth of mandible |  |  | .. |  | 102 | " |
|  | Antero-posterior diameter of ascending ramus |  |  |  |  | 32 | " |

The following are the principal indices as far as they can be ascertained from the condition of the skull :-

| Cephalic index (breadth to length) | .. | .. | .. | $71 \cdot 5$ |
| :--- | :--- | :--- | :--- | ---: |
| Height index (height to length) | . | .. | .. | $75 \cdot 5$ |
| Alveolar or gnathic index (12 to 11) | . | .. | .. | $88 \cdot 1$ |
| Total face index (14 to 7) | . | .. | .. | $104 \cdot 0$ |
| Upper face index ( 13 to 7 ) | .. | .. | .. | $66 \cdot 1$ |
| Palato-maxillary index (10 to 16) | .. | .. | .. | $122 \cdot 6$ |

Notes.-The figures within brackets refer to the measurements used in forming the index, which in each instance expresses the relation of the first to the second in percentage; c before a measurement stands for circum, and shows that it could not be made with exact accuracy.

The other Bones.-The innominate bone is imperfect; the marginal or crest epiphysis of the ilium and the ischal epiphysis are wanting, and had been ununited to these bones. The intermediate bone in the ascetabulum was also absent, and had not been united to its floor. The femur is well developed, its circumference being 81 mm . in the middle of the shaft; the epiphyses of the head, trochanters, and lower extremity are ununited to the shaft; the angle
formed by its head and neck with the shaft is obtuse. The tibia and fibula have their epiphyses ununited to the shaft; the antero-posterior diameter of the former at the nutrient foramen is 31 mm ., and the transverse diameter at the same level is 21 mm .; while in the middle of the bone these measurements are 28 and 21 mm . respectively. The humerus has the upper epiphysis ununited, but the lower epiphyses are quite united to the shaft; the epitrochlear process (internal condylar process) appears to have been broken off. Its circumference in the middle of the shaft is 69 mm . The radius has its epiphyses at both ends ununited to the shaft. All these bones are well developed as to size and muscular ridges for their stage of growth. As will be learned from the condition of the epiphyses, they have not attained their full size.

The following are the dimensions of such of the long bones as were perfect enough for measurement:-

| Right Femur | -• | $\cdot$ | 462 | mm |
| :---: | :---: | :---: | :---: | :---: |
| Left Tibia .. | . |  | 378 | " |
| Right Humerus | - |  | 330 | , |
| Left Radius. . | . |  | 255 |  |

From these measurements I have calculated the probable stature of the individual, both according to Rollet formulæ and by the newer methods of Prof. Karl Pearson. But before entering upon this subject it is necessary to state the age and sex of the individual as indicated by the skeleton. The condition of the basilar suture, the teeth, and the state of the epiphyses of the bones, enable us to determine the age of the individual at the time of death to have been between 18 and 19 years. The question of sex is a difficult one in some cases, even in adults, and still more so in adolescents. In the former the chief difficulty, once one has become familiar with the race to which the specimen belongs, is to distinguish a small ill-developed man from a well-developed and big woman. When handling the skull in the first instance I confess to having had some doubt as to the sex in this particular instance, but doubt was soon dispelled after full examination of it and the other bones. Let me parenthetically remark that this demonstrates very well how important it is to secure the limb bones as well as the skull in all instances. The relative proportions of the limb bones to the stature are different in men and women, and, therefore, irrespective of other data afforded by them, materially assist in the determination of sex in doubtful cases. The age and state of development of the skeleton, as well as the results yielded by the different formulæ for estimation of stature, had in this case to be carefully considered in coming to a decision as to the sex. The conclusion I have come to is that this is undoubtedly the skeleton of a male.

The indicated stature from the several long bones shows that proportionately the radius is abnormally long, while the humerus is slightly shorter than the normal mean. The indicated statures from the femur, tibia, and humerus agree very well, but the femur, as has been shown to be generally the case by Prof. Karl Pearson, gives on the whole apparently the best result ; the other two indicated statures from the tibia and humerus respectively deviating on either
side of it. Using the three best formulæ of Rollet, and taking the mean of them for each of the three bones, the probable stature of the individual was 1 m .69 ( $=66 \frac{1}{2}$ inches). By Pearson's method, in which the various elements of uncertainty have by mathematical calculations been excluded, the indicated stature is 1 m .68 (nearly $=66 \frac{1}{4}$ inches). These two systems of estimating height give wonderfully similar results in this case, and it may be taken as conclusive that we have got as near the truth as possible. On the basis that the bones were those of a young woman the stature indicated would be 1 m .76 ( $=69 \frac{1}{4}$ inches), or even as much as 1 m .83 (over 6 feet). This taken in conjunction with the characters of the skull, and the probable ultimate length which would have been attained by the bones on completion of growth had the individual lived till that period, put the assumption out of court.

Let us now consider the morphological characters of this skeleton in relation to the early races of Britain. The form of the cranial box is markedly dolichocephalic, its index being $71 \%$, while the complete facial index is 104 , which is also markedly dolichofacial, or leptoprosopic as it is sometimes termed; the immature stature, as we have seen, was 1 m . 68 or 9 at the age of $18-19$ years, and, from a large number of statistics on growth, might normally be expected to reach 3 cm . more, which would indicate at adult age a probable stature of 1 m .7 l or 2. The interment and articles found with the skeleton point undoubtedly (as Mr. Gray informs me) to the Bronze Age as being the period when the body was deposited in the barrow.
The form of calvaria typical of the Bronze Age people is brachycephalic, while the face is dolichofacial, and the stature calculated by Prof. Karl Pearson's methods is 1 m .71 for males, 1 m .60 for females. The characteristics of the preceding Neolithic race are a dolichocephalic calvaria, a brachyfacial (or chæmeoprosopic, as it is sometimes called), face, the stature being, by Pearson's method of calculation, 1 m .67 for the males and 1 m .536 for the females.

The earlier race lived in certain parts of the country side by side with the later, and in some cases intermingled with them, and both have influenced the population of the present day. From these facts it will be seen that the individual whose skeleton has been under examination conformed in stature and in the form of his face to the Bronze Age race, while in the shape of the calvaria he shows decidedly the characters of the Neolithic people.



## (9n $\mathfrak{Z โ t w}$ and ఔiaxe ఔxitish

## Arackntioa.

By the Rev. 0. PICKARD-CAMBRIDGE, M.A., F.B.S., \&c.

(Read February, 1905.)


HAVE been able to do but little myself in the way of field-work since my last communication (September, 1903), but I have continued the working out of materials previously collected and the rectification of nomenclature. This, added to the results of collecting by several kind friends, enables me to report now a very favourable progress in our knowledge of British Arachnida. Thirteen species have been added to our British List. Of these eight are considered to be new to science, and five have not been previously recorded in Great Britain, though known as Continental species. Added to the above are also several other species of which the females have not been before described. Of those new to science four were discovered by Dr. A. R. Jackson, M.D., of Hexham, viz., Tmeticus firmus, Tmeticus rivalis, Styloctetor uncinus, and Laseola dissimilis; this last in Dorsetshire (at Portland) during a short visit to me in June last. Of the other three, two were found at Hexham and one at the top of

Scafell in Cumberland. Another of the new species (Trochosa postuma) was found many years ago at Balmoral, Scotland, by my late Cousin, Col. Pickard, R.A.; another, Cnephalocotes ambiguus, in the Isle of Bute by Mr. W. Evans; one, Tmeticus commodus, by Mr. Claude Morley in Suffolk; and the remaining one, Phaeocedus parvus, by Mr. E. A. Newbery in London. Of those now recorded for the first time as British, though before described from other parts, one, Erigone arctica, was found by myself in considerable abundance near Chickerell, but was at first mistaken for an allied species; two, Agroeca chrysea, L. Koch, and Lophomma stativum, Sim., were sent to me from St. Leonard's-on-Sea by Mr. Ruskin Butterfield; one, Tmeticus similis, Kulcz., I received from Scotland; and the fifth, Tapinocyba insecta, L. Koch, was found at Hexham by Dr. A. R. Jackson. Among those of which the females have not before been found I may particularly mention Erigone promiscua, Cambr. The male of this has been known for many years from various localities in England and Scotland, but it is only quite recently that the female has been discovered and sent to me by Mr. R. Butterfield from St. Leonard's-on-Sea. Then, again, among rare species $I$ should mention that several examples of Theridion impressum, L. Koch, were met with at Warmwell by Dr. Jackson during his short visit to me last June. This spider had only occurred once before in England (* near Stratford-on-Avon, Warwickshire). In another Order of the Arachnida (the Phalangidea, or Harvestmen) I have to record several rare species-Sclerosoma quadridentatum, Cuvier, from St. Leonard's-on-Sea by Mr. R. Butterfield, and from Warmwell, with Sclerosoma Romanum, L. Koch, by Dr. Jackson, Oligolophus Meadii, Cambr., St. Leonard's-on-Sea, by Mr. Butterfield, and Oligolophus Hansenii, Kraepl., Nottinghamshire, by Dr. Carr. Also in another Order of Arachnids (Chernetidea or Falsescorpions) two species have been received new to Britain-Chernes cyrneus, L. Koch, from Leicester (Dr. Jackson), and Chernes

[^20]rufcolus Sim., from London (Mr. H. Donisthorpe)-as well as two other rare forms-Chernes phaleratus, Sim., sent to me by Mr. Wallis Kew from Essex, and Obisium maritimum, Leach, from Port Erin Bay, Isle of Man, by Dr. A. D. Timms. This last is only its second record in England, the other being from the Devonshire coast. The only remaining record to be made now is that of a rare Acarid, Glyphopsis Bostockii (A. D. Michael, sent to me by Mr. Claude Morley from an ant's nest (Lasius flavus) in Suffolk.

I wish I could report that the study and collecting of the Arachnida had been taken up by some one or more Dorset residents. Though I regret to say this has not hitherto come about, I hope it will yet be achieved. At times, when I have endeavoured to stir up a little enthusiasm on the subject, I have been met with the objection that, as I had apparently so thoroughly worked out this branch of Natural History in Dorsetshire myself, there was nothing more to be done! Well! the result of two or three days' work in June last by Dr. Jackson (of which I have mentioned above some particulars) during his hasty visit to Dorsetshire rather disproves the idea of nothing left to be done. A new species and several others of rarity (one as good as new) shews that there is yet much to be expected from careful collecting even where my own longest and hardest work has been bestowed.

## LIST OF NEW AND RARE ARACHNIDA

Found in Great Britain chiefly in 1904 and 1905.

## Order ARANEIDEA.

## Fam. DRASSIDÆ.

## Drassus pubescens, Thor.

Examples of this species were received from Wicken Fen, Cambridgeshire (Mr. F. P. Smith), and from Nottinghamshire (Dr. Carr).

## DESCRIPTION OF PLATE A.

Phaeocedus parvus; sp. n., p. 43.
Fig. 1. Eyes from above and behind. Fig. 2. Genital aperture. Fig 3. Maxillæ and labium.
Agelena longipes, Carpenter, p. 44.
Fig. 4. Sternum. Fig. 5. Genital aperture.
Laseola dissimilis, sp. n., p. 45.
Fig. 6. Outline of spider from above and behind. Fig. 7. Cephalothorax in profile. Fig. 8. Right palpus from above and behind.
Tmeticus commodus, sp. n., p 47.
Fig. 9. Eyes from above and behind. Fig. 10. Genital aperture. Fig. 11. Genital process in profile.
Tmeticus simelis, Kulcz., p. 47.
Fig. 12. Eyes from above and behind. Fig. 13. Genital aperture.
Tmeticus firmus, sp. n., p. 47.
Fig. 13A. Eyes of male from above and behind. Fig. 13B. Left palpus of male from outer side. Fig. 13c. Genital aperture (female).

Tmeticus rivalis, sp. n., p. 47.
Fig. 14. Eyes from above and behind. Fig. 15. Left palpus from outer side. Fig. 16. Hinder part of sternum. Fig. 17. Genital aperture. Fig. 18. Posterior extremity of genital aperture.
Lophomma stativum, Simon, p. 50.
Fig. 19. Eyes of female from above and behind. Fig. 20. Left palpus of male from above and behind. Fig. 21. Genital aperture.

Styloctetor uncinus, sp. n., p. 51.
Fig. 22. Eyes of male from above and behind. Fig. 23. Right palpus of male from above and behiud. Fig. 24. Genital aperture. Fig 25. Hinder part of sternum of female.


Phaeocedus parvus, sp. n., Pl. A, Figs. i, 2, 3.
An adult female of this small Drassid was sent to me in 1901 by Mr. E. A. Newbery, of 12 , Churchill Road, Dartmouth Park. Mr. Newbery's account of it leaves it in doubt whether this spider may not have been imported from India in a package of damaged British goods, sent out to India and returned thence. This is quite possible, though there is nothing improbable in the idea that it may be an indigenous British species. At any rate, it seems to me to be new to science.

Prosthesima rustica, L. Koch, Plate B, Fig. i.
An adult female (this sex new to Britain) was received from Mr. W. Falconer, by whom it was found in Epping Forest.

Zora nemoralis, Bl.
An adult of each sex of this spider was sent to me from Hexham, Northumberland, where they were found by Dr. A. Randall Jackson, M.D.

Agroeca celans, Bl.
Adults of both sexes were found at Hexham by Dr. A. R. Jackson, M.D.

Agroeca celer, Cambr.
An immature male received from Stratford-on-Avon from the Rev. J. H. Bloom.

Agroeca striata, Kulcz.
Immature examples were received from Mr. Ruskin Butterfield, by whom they were found at St. Leonard's-onSea in April, 1904.

Agroeca chrysea, C. L. Koch.
Examples of what, though not adult, I feel no doubt are of this species were also received from Mr. Ruskin Butterfield, by whom they were found at St. Leonard's-on-Sea. This is its first record as a British spider.

## Fam DICTYNIDE.

Protadia patula, Sim.
A female of this rare spider was received from Kirkby, Lancashire, where it was found by the Rev. J. H. Bloom.

Protadia subnigra, Cambr.
An adult female from St. Leonard's-on-Sea (Mr. Ruskin Butterfield).

## Fam. AGELENIDE.

Cryphoeca diversa, Cambr.
An example of this spider was found in Sherwood Forest, Notts, and sent to me by Dr. Carr.

Coelotes terrestris, Wid.
Coelotes terrestris, Wid. non C. solitarius, Sim.
, pabulator, Sim.-Cambr. (List of Brit. and Irish Spids., p. 16, non C. pabulator, Sim.)
I had long thought that the spider taken in the New Forest (see List of Brit. and I. Spids., Footnote *, p. 16), was identical with C. pabulator, Sim.-Cambr. (1.c.), but this has only been confirmed recently by comparison of the examples. These examples I have also now ascertained to be distinct from C. pabulator, Sim., by comparison with typical examples of this latter species received from M. Simon. Prof. Kulczynski also now confirms the identity of Coelotes pabulator, Sim.-Cambr., and C. terrestris, Wid.

Agelena longipes, Carpenter, Pl. A, Figs. 4, 5.
I have lately had an opportunity, through the kindness of Dr. A. R. Jackson, of examining the type specimen of this species. It differs in several respects from all its allies known to me. Mr. Carpenter omits a distinguishing character in the pattern on the sternum. (See Pl. A, Fig. 5, where a figure is also given of the genital aperture.)

## DESCRIPTION OF PLATE B.

## Prosthesima rustica, L. Kooh, p. 43.

Fig. 1. Genital aperture.
Onesinda minutissima, Cambr., p. 45.
Fig. 2. Left palpus from outer side.
Sintula fausta, Cambr., p. 48.
Fig. 3. Genital aperture.
Erigone longipalpis, Sund., p. 48.
Fig. 4. Genital aperture.
Erigone arctica, White-Cambr., p. 49.
Fig. 5. Genital aperture.
Erigone promiscua, Cambr., p. 50.
Fig. 6. Genital aperture.
Erigone dentipalpis, Wid., p. 49.
Fig. 7. Genital aperture.
Erigone atra, Bl., p. 50.
Fig. 8. Genital aperture.
Lophomma laudatum, Cambr., p. 50.
Fig. 9. Genital aperture.
Lophomma subaquale, Westr., p. 50.
Fig. 10. Genital aperture.
Cnephalocotes elegans, Cambr., p. 52.
Fig. 11. Eyes of female from above and behind. Fig. 12. Genital aperture.
Cnephalocotes interjectus, Cambr., p. 52.
Fig. 13. Cephalothorax of female in profile. Fig. 14. Eyes from above and behind. 15. Genital aperture.
Cnephalocotes ambiguts, sp. n., p. 52.
Fig. 16. Cephalothorax in profile. Fig. 17. Eyes from above and behind. Fig. 18. Left palpus on upper side above. Fig. 19. Part of right palpus from outer side.
Tapinocyba insecta, L. Koch-Sim., p. 52.
Fig. 20. Eyes of male from above and behind. Fig. 21. Left palpus on upper side behind. Fig. 22. Right palpus rather on inner side. Fig. 23. Genital aperture.
Walckenaera capito, Westr., p. 53.
Fig. 24. Genital aperture.
Trochosa postuma, sp. n., p. 55.
Fig. 25. Profile of spider from above. Fig. 26. Geuital aperture.
Chernes cyrneus, L. Koch, p. 56.
Fig. 27. Cephalothorax from above and behind. Fig. 28. Palpus.
Chernes rufeolus, Sim., p. 56.
Fig. 29. Cephalothorax from above and behind. Fig. 30. Palpus.


Hahnia helveola, Sim.
An adult female near Huddersfield (Mr. W. Falconer).

## Fam. THERIDIIDE.

Episinus truncatus, Walck.
Received from Hexham (Dr. Jackson), 1904.
Theridion impressum, L. Koch.
Adults of both sexes were found among coarse herbage in a marshy spot at Warmwell by Dr. A. R. Jackson on June 16th, 1904. The only previous occurrence of this spider in England was recorded in "Proc." Dors. N.H. and A.F. Club, Vol. XXIV., p. 152, where a figure of the palpus is given (Pl. A, Fig. 2). It is very nearly allied to an abundant spider, T. sisyphium, Clk., for a faintly marked example of which the present species might easily be overlooked.

Onesinda minutissima, Cambr., Pl. B, Fig. 2.
Adults of both sexes were received from Dr. A. R. Jackson (Hexham), and the female from Mr. W. Falconer (near Huddersfield). The male has not before been recorded. A figure of the palpus of that sex is given ( $\mathrm{Pl} . \mathrm{B}$, Fig. 2).

Lithyphantes corollatus, C. L. Koch.
An immature female, found in Sussex, was sent to me by Mr. Claude Morley.

Laseola coracina, C. L. Koch.
An adult male, from Suffolk, received from Mr. Claude Morley.

Laseola dissimilis, sp. n., Pl. A, Figs. 6, 7, 8.
An adult male, which I believe to be new to science, was found near Pennsylvania Castle, Portland, by Dr. A. R. Jackson in June, 1904. (See description postea, p. 58.)

## Enoplognatha thoracica, Hahn.

An adult female, Sherwood Forest, Dr. Carr.
Robertus neglectus, Cambr.
Robertus astutus, Cambr., Spid. Dors., p. 103.
Pedanostethus neglectus, Cambr., Spid. Dors. (sub Neriene), p. 12 I.
Neriene aspera, Cambr., Spid. Dors., p. 136.
An adult male, Huddersfield, W. Falconer.
Adult males, Hexham, Dr. A. R. Jackson, and
An adult female, Epping Forest, F. P. Smith.
On a careful re-examination of the types and other examples since met with, it seems certain that the three above spiders are identical. Robertus neglectus, Cambr., was described in 1870, and is therefore prior to $R$. astulus, which was described in 1879. Pedanostethus (Neriene) aspera was also described in 1870, but its description occurs several pages later than that of $P$. neglectus.

The genus Pedanostethus, Sim., was characterised by M. Simon in 1884, while Robertus, Cambr., was published in 1879, and thus takes precedence of Pedanostethus, with which it seems to be undoubtedly congeneric.

## Leptyphantes minutus, Bl.

Leplyphantes cingulipes, Cambr.
L. cingulipes appears to be only an abnormally coloured example of $L$. minutus, Bl.

Bathyphantes pullatus, Cambr.
Linyphia crucigera, Bl .
Linyphia crucigera, Bl., is a pale variety of $B$. pullatus, Cambr., in which the chief or sometimes only dark marking left on the upper surface of the abdomen is of a cruciform shape. There are, however, in a series of examples numerous varieties intermediate between the above and the normally marked specimens.

Bathyphantes setiger, F. O. P. Cambr,
An adult male and female of this very interesting form, Penrith, Dr. A. R. Jackson.

## Tmeticus arcanus, Cambr.

An adult male, W. Falconer, near Huddersfield.
Tmeticus firmus, sp. n., Pl. A, Figs. 13A, 13B, I 3 C .
Adults of both sexes of this species, which appears to be new to science, were received from Dr. A. R. Jackson from Hexham in January, 1904. Adult females had already been sent to me from near Huddersfield (July, 1903), by Mr. W. Falconer. (A description will be found postea, p. 59.)

Tmeticus rivalis, sp. n., Pl, A, Figs. 14, 15, 16, $17,18$.
Both sexes, adult, from Hexham (Dr. A. R. Jackson), and females subsequently from W. Falconer, Hexham. A very distinct species and apparently new to science. (Description postea, p. 6r.)

Tmeticus similis, Kulcz., Pl. A, Figs. 12, I3.
An adult female, which seems identical with $T$. (Centromerus) similis, Kulcz., was found at Balmoral by the late Col. A. F. Pickard.

Tmeticus commodus, sp. n., Pl. A, Figs. 9, io, 1 I.
An adult female, Suffolk (Claude Morley), 1904, apparently a very distinct species and new to science. (See description postea, p. 63 .)

Tmeticus reprobus, Cambr.
An adult male, Kirkby, Lancashire, Rev. J. H. Bloom.

## Tmeticus Huthwaitii, Cambr.

Adult females, Buxton, Derbyshire, Rev. R. J. PickardCambridge, May, 1904.

## Sintula fausta, Camb., Pl. B, Fig. 3.

Adults of both sexes, Hexham (Dr. A. R. Jackson). The female resembles the male in general characteristics.

Syedra pholcommoides, Cambr.
Sintula pholcommoides, Cambr., List Brit. and Ir. Spid., p. 37, "Proc." Dors. N.H. and A.F. Club, XXIV., p. 154.

This curious little spider appears to belong rather to the genus Syedra, Sim., than to Sintula, Sim. The species, however, of Sintula are at present not all satisfactorily allocated, and much need revision. An adult female (hitherto unrecorded) was contained among some other spiders collected in 1891 by C. O. Pickard-Cambridge near Weymouth.

Gongylidium retusum, Westr.
Adult examples of both sexes, St. Leonard's-on-Sea (Ruskin Butterfield).

Tiso vagans, Bl .
Both sexes, adult, St. Leonard's-on-Sea (Ruskin Butterfield).

Erigone, Aud.-Sav.
Neriene, Bl.-Cambr., ad partem.
Erigone, Sund.-Cambr., Brit. and Ir. Spid., p. 40.
After a prolonged examination of a large number of examples of this well-marked genus, the following appear to be the species as yet found in Great Britain :-

Erigone longipalpis, Sund., Pl. B, Fig. 4.
Erigone longipalpis, Sund.-Cambr. ,, pascalis, Cambr.
This species is distributed over the greater part of of England and Scotland, but local and rarer in the south than in the north. Whether the spider recorded, "List of the Spiders of Ireland" (" Proc." Royal Irish Academy,

June 27th, 1898, 3rd Ser., Vol. V., No. 1, p., 172), under this name by Mr. G. H. Carpenter is the true E. longipalpis of Sund. or not, I do not know, not having seen the examples.
Erigone pascalis, Cambr., is without doubt an undeveloped form of $E$. longipalpis.
Erigone arctica, White, Pl. B, Fig. 5.
Erigone arctica, White-Cambr., Ann. and Mag. N.H., Oct., 1877, p. 278, Pl. VIII., Fig. 3.
," arctica, White-Cambr., var. maritima, Kulcz., Bull. de l' Acad. des Sciences de Cracovie, Oct., 1902, p. 539.
Both sexes were met with in abundance by myself under dry seaweed and othes débris near Chickerell, and were at first mistaken for E. lonsipalpis, to which it is allied. Prof. Kulczynski, of Cracow, first drew my attention to their distinctness, and considers them to be a variety of $E$. arctica, White-Cambr., to which he has given the name "maritima" in his excellent monograph of the European species of Erigone (1.c. supra). I am not entirely satisfied as to their identity with $\boldsymbol{E}$. arctica, White-Cambr. ; the type of this last species has several well-marked differences upon which I am inclined to lay more weight than Prof. Kulczynski gives them. In the absence, however, of a series of examples of the more northern form for comparison, I record the Chickerell specimens as new to Britain under the name of arctica, White-Cambr., var. maritima, Kulcz. I have, since these were found, met with it in other Dorset localities, and have also received it from the North of England, Scotland, and Ireland, but in every instance the examples are strictly the var. maritima, and are wanting in those characters which I think may one day prove them to be distinct from E. arctica, White-Cambr.

## Erigone dentipalpis, Wid., Pl. B, Fig. 7.

A generally distributed and abundant species.

Erigone promiscua, Cambr., Pl. B, Fig. 6.
Widely distributed and not rare in some localities both in England and Scotland. Until very recently (when both sexes were sent to me by Mr. Ruskin Butterfield from St. Leonard's-on-Sea) I had not been able to identify the female. In several characters this sex is very similar to the females of other nearly-allied species.

Erigone atra, Bl., Pl. B., Fig. 8.
Abundant and generally distributed in England and Scotland.

Lophomma stativum, Sim., Pl. A, Figs. 19, 20, 2 1.
Lophomma stativum, Sim., Arachn. de France, V., p. 540 .

Both sexes, adult, were received from Mr. Ruskin Butterfield, by whom they were found at St. Leonard's-on-Sea in 1904. It is a very distinct species, and this is its first British record. A description is added (postea, p. 64).

Lophomma laudatum, Cambr., Pl. B, Fig. 9.
Tapinocyba subaqualis, Cambr., "Proc." Dorset N.H. and A.F. Club, Vol. XXIV., p. 159 .
Lophomma laudatum is nearly allied to T. subequalis, Cambr., but they may be distinguished by the hind-central eyes in $L$. laudatum, being nearer together than to the hindlaterals, and other slight differences, while the females also differ considerably in the form of the genital aperture. The spider recorded as Tapinocyba subaqualis, Cambr., l.c. supra, is certainly Lophomma laudatum, Cambr.

Lophomma subæquale, Westr., Pl. B, Fig. 1 o.

> Tapinocyba subaqualis, Westr.-Cambr., List of Brit. and Ir. Spid., 48 .

This spider is undoubtedly a Lophomma. (See observations on the preceding species.)

Enidia, F. P. Smith, Journ. Quekett Microscopical Club, Nov., 1904, p. 115.
This generic name is substituted for Dicyphus, Menge and other authors (pre-occupied by a genus of Hemiptera heteroptera, Feb., 1858).

Diplocephalus Beckii, Cambr. An adult male, Rev. J. Bloom, Warwickshire.

Entelecara Thorellii, Westr.
Adults of both sexes, Dr. A. R. Jackson, Hexham.
Entelecara omissa, Cambr.
An adult male, near Weymouth, Rev. C. O. PickardCambridge.

## Pocadicnemis pumilus, Bl.

Microneta nefaria, Cambr., female, Spid. G.B. and Ir., p. 35.

I do not feel much doubt but that the female spider described (l.c. supra) is a variety of Pocadicnemis pumilus, Bl.

Styloctetor uncinus, sp. n., Pl. A, Figs. 22, 23, 24, 25.
This spider is quite distinct from $S$. (Erigone) broccha, L. Koch, of which I possess German types from Dr. L. Koch. It is also, I think, distinct from S. broccha, L. KochSim. (Arachn. de France, V., p. 739). What Mr. G. H. Carpenter's spider, described and figured as Entelecara broccha, L. Koch (Natural Science, XII., May, 1898, p. 321, and "List of Spiders of Ireland," "Proc." of the Royal Irish Academy, 3rd Ser., Vol. V., No. i, pp. 165, 166), may be I cannot say, not having seen the specimen, but, judging from the figures given, it appears to be distinct from the spider described by M. Simon, as well as from the one now recorded; and it is certainly, I think, not S. broccha, L. Koch.

An adult of each sex was sent to me by Dr. A. R. Jackson, by whom they were found on the top of Scafell, Cumberland. A description is given postea p. 65.

## Troxochrus hiemalis, Bl.

Diplocephalus speciosus, Cambr.
These two spiders are identical. Their hitherto supposed distinctness rested on an imperfect examination of the palpal organs of T. hiemalis, Bl.

Cnephalocotes obscurus, Bl.
An adult male, St. Leonard's-on-Sea, Ruskin Butterfield.
Cnephalocotes interjectus, Cambr., Pl. B, Figs. 13, 14, 15.
The female of this spider has not been before recorded, but an example, which I believe to be of this species, was sent to me from St. Leonard's-on-Sea by Mr. Ruskin Butterfield.

Cnephalocotes elegans, Cambr., Pl. B, Figs. 11 , 12.
A spider which I believe to be the female of this species was sent to me by Mr. W. Falconer from near Huddersfield. This sex has not been before recorded.

Cnephalocotes curtus, Sim.
Adult males, St. Leonard's-on-Sea, Ruskin Butterfield.
Cnephalocotes ambiguus, sp. n., Pl. B, Figs. 16, 17, 18, 19.
Isle of Bute, Evans. (See description postea, p. 67.)
Tapinocyba insecta? L. Koch, Pl. B, Figs. 20, 21, 22, 23.
? Erigone insecta, L. Koch, Beitrag zur Keuntniss der Arachniden fauna Tirols Naturwissenschaftliche Abtheilung, 1841, p. 187.
Plasiocrorus insectus L. Koch-Sim., Arachn. de France, V., p. 774.
Adults of both sexes were found by Dr. A. R. Jackson at Hexham. This is its first record as a British species. I
am, however, not quite convinced of its identity with Dr. Koch's spider, though it is identical with the spider described by M. Simon under that name (Arachn. de Fr., p. 774). (See description postea, p. 68.)

Panamomops bicuspis, Cambr.
An adult male of this curious little spider was sent to me from St. Leonard's-on-Sea by Mr. Ruskin Butterfield.

Baryphyma pratensis, Bl .
I have received this species from Dr. Jackson (Hexham), Mr. Ruskin Butterfield (St. Leonard's-on-Sea), and Dr. Carr (Nottingham).

Wideria subita, Cambr.
An adult female among spiders sent to me some years ago from N. Britain by the late Mr. Hardy.

Wideria fugax, Cambr.
An adult female, Huddersfield, Mr. W. Falconer, and an adult male, Dr. Carr, Sherwood Forest.

Walckenaera nodosa, Cambr.
An adult male, Hexham, Dr. Jackson.
Walckenaera obtusa, BI.
An adult female among spiders collected for me some years ago, North Britain, J. Hardy.

## Walckenaera nudipalpis, Westr.

An adult male, St. Leonard's-on-Sea, R. Butterfield.
Walckenaera capito, Westr., Pl. B, Fig. 24.
An adult female among spiders sent to me from Scotland many years ago by Mr. H. Traill, and another of the same sex from Scafell, Dr. A. R. Jackson.

Cornicularia vigilax, Bl .
Both sexes, adult, Dr. Jackson, Hexham.

## Fam. EPEIRIDÆ.

Cercidia prominens, Westr.
St. Leonard's-on-Sea, R. Butterfield.
Singa pygmæa, Sund.
An adult male (var. anthracina, BI.), Kirkby, Lancashire, Rev. J. H. Bloom

Epeira triguttata, Fabr.
Epeira signata, B1., Spid. Great Brit. and Ireland,

$$
\text { p. } 332 .
$$

I feel no doubt but that Mr. Blackwall's Epeira signatathe type of which has been lost for many years-is of this species. A variety of triguttata, not rare in some localities, agrees exactly with Mr. Blackwall's description.

## Fam. THOMISIDE.

Xysticus bifasciatus, C. L. Koch.
An adult male was found at Bloxworth in June, 1904, by Dr. A. R. Jackson. It is a rare spider in Dorsetshire. Dr. Jackson has also met with it at Hexham.

Xysticus luctuosus, Bl.
An adult female in Epping Forest, W. Falconer.
Oxyptila simplex, Cambr.
Abundant, St. Leonard's-on-Sea, R. Butterfield.
Oxyptila sanctuaria, Cambr.
An adult female, St. Leonard's-on-Sea, R. Butterfield.
Philodromus rufus, Walck.
Philodromus rufus, Walck.-Sim., Arachnides de France, Vol. II., p. 287.
Philodromus Clarkii, Bl.-Cambr., Spid. G. B. and Ir., p. 63.

Walckenaer's description of this spider was published in 1825, that of Blackwall in 1849 or 1850 . The former name (rufus), therefore, has priority.

## Fam. LYCOSIDE.

Trochosa spinipalpis, F. O. P. Cambr.
Both sexes, adult, Warmwell, Dr. A. R. Jackson.
Trochosa postuma, sp. n., Pl. B, Figs. 25, 26.
An adult female among spiders collected for me many years ago at Balmoral by Col. A. F. Pickard, R.A. (See description postea, p. 70.)

Lycosa agricola, Thor.
Adult males, Kirkby, Lancashire, Rev. J. H. Bloom.

## Lycosa herbigrada, Bl.

Females, Hastings, F. P. Smith, and Hexham, Dr. A. R. Jackson. These are chiefly of a variety which in their pattern run very closely to Lycosa palustris, Linn. This variety also occurs on our Dorset heaths, but is not common.

## Fam. SALTICIDE.

Hasarius arcuatus, C. L. Koch.
Adult males, Hastings and Wicken Fen, F. P. Smith.
Hasarius Andansonii, Sav.
An adult male in a greenhouse, Seaton Mersey, Lancashire, Rev. J. H. Bloom.

## Order PHALANGIDEA.

Sclerosoma quadridentatum, Cuvier.
St. Leonard's-on-Sea (Ruskin Butterfield), and Warmwell, Dorset (Dr. A. R. Jackson).

Sclerosoma Romanum, L. Koch.
Warmwell, Dr. A. R. Jackson.

Oligolophus Meadii, Camtr.
St. Leonard's-on-Sea, Ruskin Butterfield. This is only its second recorded occurrence.

Oligolophus Hansenii, Kraepl.
Nottinghamshire, under old boards, \&c., in meadows (Dr. Carr). This is its first record in England, previous examples having been found in Scotland.

## Order Chernetidea (False Scorpions).

Obisium maritimum, Leach.
Examples of this species were sent to me from Port Erin Bay, Isle of Man, by Dr. A. D. Timms, of the Zoological Laboratory University of Birmingham. They were found in crevices of rocks below high water mark. This is only the second record since the days of Dr. Leach.

Chernes cyrneus, L. Koch, Pl. B, Figs. 27, 28.
Chelifer cyrneus, L. Koch-Sim., Arachn. de France, VII., p. 36 .

This species, new to Britain, was sent to me from Leicester by Dr. A. R. Jackson.
Chernes phalepatus, Sim.
Found among stable refuse at Hagenham, Essex, and sent to me by Mr. H. Wallis Kew.

Chernes rufeolus, Sim., Pl. B, Figs. 29, 30.
Chernes rufeolus, Sim., Arachn. de France, VI., p. 4 I.
Found at the Holborn Granary, London, and sent to me by Mr. H. Donisthorpe. New to Britain.

Order ACARIDEA.

## Fam. GAMASIDÆ.

Glyphopsis Bostocki, Michael.
A rare species, found in nest of Lasius flavus, Suffolk, sent to me by Mr. Claude Morley.

# Notes and Descriptions of Some of the Species in the foregoing List. 

## DRASSIDE.

## Phaeocedus parvus, sp. n. Pl. A, Fig. i.

Adult female, length 2.5 mm . ( $1 \frac{1}{4}$ lines).
Cephalothorax much longer than broad, narrow and rounded in front, truncated behind; lateral impressions at caput slight; upper side convex, but rather flattened. Colour dull yellowishbrown, and covered thinly with rather long dark hairs.

Eyes in two transverse rows, the posterior row rather the longest and nearly straight, convexity of curve directed backwards, the hind-central pair largest of the eight, near together, but not contiguous, somewhat oval, or sub-triangular, oblique, their small ends directed backwards, and very nearly the same interval between these ends as between the larger ends and the lateral eyes. The anterior row shortest, very slightly curved, and apparently in the same direction as the posterior. The eyes almost contiguous, the fore-centrals a little wider apart, smallest, and separated from the hind-centrals by nearly a diameter, height of clypeus rather less than the diameter of one of the fore-central eyes; all the eyes pearly-white, excepting the forecentrals.

Legs short, strong, 4, 1, 2, 3. No spines beneath those of the first and second pairs, but all furnished with long coarse hairs, two longish spines on the upper sides of the two first femora. Colour like that of the cephalothorax ; the under sides, as also the sternum, yellow. The maxilla and falces yellow- brown.

Abdomen elongate-oval, of a dull yellowish-hue, with a series of indistinct curvilinear dark-brown angular lines on the hinder half of the upper side, and clothed with long coarse hairs. Just beneath the fore extremity of the upper side are a number of long cylindrical curved hairs, upturned, and of a spinous character. The genital aperture is characteristic. Spinners not very long; inferior pair longest and stoutest. A single example
from Mr. Newbery, found among the contents of a returned package to London from India, and so may possibly be exotic.

## Agroeca ch̄rysea, C. L. Koch.

Immature female, length $1 \frac{1}{3}$ lines.
In general form, markings, and appearance this spider is much like some other nearly allied species, but its colouring is brighter, the abdomen being of a bright red-brown hue, clothed with short hairs, reflecting in a bright light strongish iridescent hues. The normal pattern is obscure, but some yellowish spots forming a somewhat quadrangular figure are more distinct near the middle of the upper side. The cephalothorax has an indistinct lateral sub-marginal border rather paler than the rest, but no longitudinal central stripe, or band.

The legs are without annuli and of a pale yellowish-brown hue. The tibir of the first and second pairs are suffused with reddish-brown, and apparently covered with minute, pale, hairbearing tubercles. Beneath the tibiæ are two pairs, and beneath the metatarsi three pairs of long adpressed spines.

Although not adult, I feel very little doubt about this spider being A. chrysea, C. L. Koch, as it agrees very closely with Continental examples in my possession. It was sent to me in 1904 from St. Leonard’s-on-Sea by Mr. Ruskin Butterfield, and has not been hitherto recorded as a British species.

## THERIDIIDE.

## Laseola dissimilis, sp. n. Pl. A, Figs. 6, 7, 8.

Adult male, length just over i line.
The profile of the cephalothorax forms an even and very slightly curved line from the hinder extremity to the ocular area, which curves over more sharply to the clypeus. This is very high and much impressed at the upper side, but prominent and with a curved outline below. The colour of the cephalothorax
is a dull yellow-brown, the ocular area suffused with black, and, as well as the upper part of the clypeus, furnished with numerous bristly hairs, those on the clypeus just below the ocular area upturned.

The Eyes are rather large and occupy the whole of the fore extremity of the caput. The posterior row is very nearly straight; its very slight curve has its convexity directed forward; the hind-central pair are separated by a diameter's interval from each other and by at least one and a-half diameters from the laterals. The fore-centrals are wide apart on somewhat tubercular prominences, and with the hind-centrals form a quadrangle, whose fore-side is much longer than the hinder one.

Falces, maxilla, labium, and sternum are yellow-brown.
Legs, moderately long, 1, 4, 2, 3, furnished with hairs only, and of a pale-yellow hue.

Palpi similar in colour to the legs, short, the cubital joint much rounded, or nodiform above, the radial short, broad, and spreading, in a somewhat mushroom form. The digital joint is very large, obtuse, oval ; the palpal organs simple.

Abdomen short oval, very convex above, and projecting over the base of the cephalothorax. Colour dull black, and clothed thinly with coarse hairs.

A single example of this species, which differs from all the others of the genus known to me, was found under a piece of rock near Pennsylvania Castle, Portland, in June, 1904, by Dr. A. Randall Jackson.

## Tmeticus firmus, sp. n. Pl. A, Figs. 13A, 13 B, 13 C .

Adult male, length I line ; adult female, length 1 line.
Cephalothorax, short, rounded in front, a little longer than broad; upper convexity uniform ; height of clypeus considerably exceeds half that of the ocular area. Lateral marginal impressions at the caput scarcely perceptible. Colour pale dull yellow tinged with brown, and a few coarse hairs among the eyes.

Eyes sub-equal, rather closely grouped, in the normal position. The posterior row straight, or as nearly as possible; the two centrals rather further from each other than from the laterals, the fore-centrals almost contiguous to each other, and the smallest of the eight. The four central eyes form a square, whose fore-side is much the shortest; all are pearly-white, excepting the fore-central pair, which are suffused with blackish.

Legs moderately long, rather slender, 1, 4, 2, 3, furnished with hairs and one or two slender spines, with some fine bristles on the tibiæ of the first and second pairs. Colour pale yellow.

Palpi similar to the legs in colour, moderately long. Cubital and radial joints about equal in length, the latter rounded and spreading at the fore-margin, which is furnished with a row of coarse bristly hairs; digital joint large, with a rather prominent sub-conical lobe at its base on the outer side, and another about the middle of the outer side, larger and prominent. The digital joint is furnished with coarse prominent bristles, especially at the base and fore-extremity. The palpal organs are highly developed, complex and prominent, with the whole of their outer side behind encircled by a strongly-curved corneous, somewhat trough-like, process, whose upturned extremity is bifid.

The Falces, maxilla, labium, and sternum are normal and of a dull pale yellow colour, like the cephalothorax.

The abdomen is oval, of a yellow-brown colour, thinly furnished with hairs, some of which on the upper side in front are long and of a bristly nature.

The colours above given of the male are probably too pale (having become obliterated in spirit of wine), as the female is altogether darker, and in this latter sex the posterior row of eyes appears to be slightly curved, the convexity of the curve directed forwards, and all the eyes are margined strongly with black. The genital process is large and of a sub-triangular form, the apex of the triangle directed backwards. It appears to be composed of two corneous plates superimposed upon each other,
and in a transverse line near its base are two more or less conspicuous dusky blackish round spots.

Adults of both sexes of this very distinct spider were sent to me from Hexham by Dr. A. R. Jackson in January, 1904, females having been before received from Mr. W. Falconer, Huddersfield (July 8th, 1903).

Tmeticus rivalis, sp. n. Pl. A, Figs. 14, 15, 16, 17, 18.
Adult male, length rather less than 1 line ; adult female, 1 line.

The cephalothorax is yellow-brown, short, broad, about equal in length and breadth, or slightly longer than broad, well rounded in front; lateral marginal impressions scarcely perceptible, upper convexity uniform. Height of clypeus half that of the facial space.

Eyes sub-equal and of tolerable size, rather closely grouped, and occupying nearly the whole width of the fore part of the caput. The hinder row has its very slight curve directed backwards, that of the front row forward. The hind-centrals are about a diameter's interval apart, but rather further from each other than from the hind-laterals. Those of the anterior row are almost contiguous to each other. The fore-central eyes are a little the smallest. The four centrals form a square, whose fore-side is shortest.

The legs were much damaged, but appeared to be moderately long; their relative length, 4, 1, 2, 3, of a pale yellow-brown colour, and furnished with hairs.

Palpi rather short; the radial is stronger than the cubital joint, its fore extremity very slightly produced, and beneath the fore-margin are two small projecting points, giving it a somewhat emarginate appearance, the point on the inner side being the strongest, and behind the joint are several strong bristly hairs. The digital joint is large, obtuse-oval, with a large lobe on its outer side, and the palpal organs are well developed and complex. There is a strong curved C-shaped process
(paracymbium) at their base on the outer side and several irregular black spiny projections at their extremity.

The maxilla, falces, and labium are yellow-brown, the sternum suffused with dusky blackish.

Abdomen oval, of a dark, dull blackish-brown colour, showing, in spirits of wine, many pale irregular lines, and clothed thinly with hairs.

The female has the cephalothorax longer in proportion to its breadth than the male, but resembles it in colour. The genital aperture is characteristic, and has a somewhat sub-triangular process, whose apex is directed backwards.

Although I have here included this species in the genus Tmeticus, I suspect that its ultimate place will be found among the nearly allied Micronetas, a group furnishing the closest resemblances among its numerous forms, and consequently giving great difficulty in allocating them rightly. Examples of both sexes were sent to me by Dr. A. R. Jackson from Staffordshire in October, 1902, and the female by Mr. W. Falconer in January, 1904.

## Tmeticus similis, Kulcz. Pl. A, Figs. 12, 13.

Centromerus similis, Kulzcynski, Araneæ Hungariæ, tom. II., Part I., p. 82, Pl. III., Fig. 25.

Adult female, length I line.
Cephalothorax rather longer than broad, oval, rounded in front; lateral marginal impressions at the caput moderately strong; height of clypeus rather exceeds half that of the facial space. Colour yellow, tinged with brown and narrowly margined with black.

Eyes rather large, sub-equal, pearly-white with black margins, the fore-centrals smallest ; posterior row curved, the convexity of the curve directed backwards, the hind-centrals separated by less than a diameter's interval, but rather further from each other than from the hind-laterals. The front row has a very slight curve, whose convexity is also directed backwards. The
eyes of this row are very close together, but not contiguous to each other.

Legs moderate in length and strength, 4, 1, 2, 3, furnished with hairs, bristles, and a few of a spinous nature. Colour like that of the cephalothorax.

Palpi like the legs in colour, the bristle at the fore extremity of the cubital joint short, tapering.

Falces and maxillce similar to the cephalothorax in colour, labium and sternum darker yellow-brown.

Abdomen oval, dark brown, clothed, but not thickly, with short hairs, genital aperture and process very characteristic. An example of this spider was sent to me some years ago, among others, from Balmoral by my cousin, the late Col. Pickard, R.A. It agrees with the figure and description given by Prof. Kulczynski (l.c. supra), and I believe it to be of the same species. This is its first record in Great Britain.

Tmeticus commodus, sp. n. Pl. A, Figs. 9, 10, II.
Adult female, length rather over $1 \frac{1}{2}$ lines.
Cephalothorax much longer than broad, oblong, rounded in front ; lateral marginal impressions at caput distinct, but not strong; height of clypeus equal to half that of the facial space; colour yellow-brown, the normal grooves indicated by a darker hue.

Eyes sub-equal, width of ocular area from side to side at least double the length (from back to front). Posterior row straight, its eyes equally separated by rather more than an eye's diameter; anterior row curved, the convexity of the curve directed forwards. The fore-central eyes are smallest, but not very small, near together, but not contiguous, and each is as widely separated from its lateral eye as the eyes of the posterior row are from each other. The four central eyes form a quadrangle, whose anterior side is much the shortest.

Legs rather short, slender, 4, 1, 2, 3, furnished with coarse hairs and bristles; two longitudinal parailel rows of bristly hairs
on the fore side of the femora of the first three pairs. Colour pale yellow-brown.

Palpi similar to the legs in colour; the ordinary bristle from the fore extremity on the upper side of the cubital joint, long straight, tapering, and almost of a spinous nature; numerous hairs and bristles at the extremity of the digital joint, and some of them spinous.

Falces, maxillx, labium, and sternum dark yellow.
Abdomen oblong-oval, thinly clothed with short hairs, and of a dull yellowish-brown colour-no doubt much faded. Genital aperture and process very characteristic. (See Pl. A, Fig. 11).

A single example, Suffolk, Mr. C. Morley.

## Lophomma stativum, Sim. Pl. A, Figs. 19, 20, 21.

Adult male, length I line; length of female rather over i line.
Cephalothorax nearly as long as broad, fore part much the narrowest and rounded, hinder extremity truncate. Lateral marginal impressions slight, upper convexity moderate and even; the height of the clypeus exceeds half that of the facial space, and it is rather prominent at its lower margin, but impressed above. Colour deep brown.

Eyes sub-equal. Those of the posterior row form a straight line; the interval between the hind-centrals considerably exceeds an eye's diameter, and is rather greater than that between each and the hind-lateral next to it. The four centrals form nearly a square.

Legs rather short, 4, 1, 2, 3, furnished with hairs only. Colour bright reddish-orange.

Palpi short, colour dull yellow-brown to dark brown, furnished with coarse hairs; radial joint slightly shorter, but stronger than the cubital, and spreading at its fore extremity. The outer side of the radial joint is produced at its fore extremity into a strong apophysis, rather less in length than the joint itself, slightly curved, and its end broad and rounded. The digital joint is rather large, somewhat roundish, with its posterior extremity a
little produced and truncated. The palpal organs are prominent and well developed; at their fore extremity is a strong black circularly-curved spine, and at their base on the outer side is a strong curved corneous process (paracymbium).

Falces long, moderately strong, straight, and of a dark yellowish-brown colour.

Maxilla and labium like the falces in colour.
Sternum as broad as long, heart-shaped, broadly and obtusely pointed behind, between the coxæ of the fourth pair of legs.

Abdomen short, oval, jet black, very shiny, and clothed with hairs.

The female resembles the male in general character and colours. The form of the genital aperture is characteristic, but much resembles that of Gongylidium retusum, Westr.

Both sexes were found at St. Leonard's-on-Sea by Mr. Ruskin Butterfield under the débris of grass and herbage, but nearly all were immature.

Styloctetor uncinus, sp. n. Pl. A, Figs. 22, 23, 24, 25.
Adult male, length i line.
Cephalothorax oval, narrowest in front, rounded both in front and behind; lateral marginal impressions at caput obsolete; height of clypeus exceeds half that of the facial space, and projects a little forwards to its lower margin. From the middle of the upper part of the clypeus and from the ocular area spring some upturned coarse bristly hairs. Upper convexity of cephalothorax even, only a very slight depression in profile at the junction of caput and thorax. Colour dull greenish-yellow black-brown. The normal grooves and indentations indicated by obscure darker lines and irregular markings.

Eyes sub-equal ; fore-central pair much the smallest. The width of the ocular area is nearly about double its length from back to front; posterior row of eyes curved, the convexity of the curve directed backwards, the interval between the hind-centrals rather more than an eye's diameter, and distinctly greater than
that between them and the hind-laterals. The anterior row has the convexity of its slight curve directed forward. The forecentrals are separated by less than half an eye's diameter from each other and by a diameter from the fore-laterals. Each lateral pair is seated on a rather strong tubercle, the fore-laterals being the largest. The four central eyes form a quadrangle whose anterior side is much the shortest, but its length rather greater than its width behind.

The Legs are moderately long, 4, 1, 2, 3, similar in colour to the cephalothorax, and furnished with hairs and a very few bristles. The coxæ of the fourth pair are specially furnished for stridulating purposes, described further on.

The palpi are short, similar to the legs in colour. Cubital and radial joints about equal in length, the radial much the strongest and enlarged at its fore extremity, produced on its inner side into a strong, curved, rather hooked tapering apophysis, whose point is directed outwards. On the outer side of the radial joint are some strongish bristly hairs of different lengths; digital joint of moderate size, short, oval, furnished with hairs, the strongest of which are at the extremity. Palpal organs prominent and complex.

Falces moderately strong, divergent at their extremities. Colour like that of the cephalothorax.

Maxilloe, labium, and sternum suffused with blackish-brown.
Abdomen short, oval, black, thinly covered with very short hairs. The spiracular plates form a strong convexity, transversely rugulose, their surface apparently broken up into a kind of network of slight chitinous edges. A sharp corneous point at the inner side of the fore extremity of the coxæ of the fourth pair of legs is in a position to act upon the chitinous edges, and no doubt, as has been conjectured, furnishes a stridulating apparatus, probably used for the purpose of sexual attraction. This apparatus occurs in both sexes ; but the corneous point on the coxæ is less sharp in the female.

Female similar to the male in size and colour and other general characters. On the upper side of the abdomen some
whitish spots are visible (in spirit of wine) on the fore half of the upper side. The genital aperture is small, but of characteristic form.

An adult of each sex found on Scafell Pike, Cumberland, by Dr. A. R. Jackson.

This spider is quite distinct from S. broccha, L. Koch, of which I have Dr. Koch's types. It is also, I believe, different from S. broccha, L. K.-Sim., Arach. de France, V., p. 739. Whether it is the same species as that described and figured from Ireland by Mr. G. H. Carpenter as S. broccha, L. K., I cannot say, as I have not seen Mr. Carpenter's examples; but, judging from his figures, it would seem to be distinct.

Cnephalocotes ambiguus, sp. n. Pl. B., Figs. 16, $17,18,19$.
Adult male, length $\frac{3}{4}$ of a line $=1-16$ th of an inch.
Cephalothorax short, broad, nearly as broad as long, rounded in front; lateral marginal impression at the caput very slight; height of clypeus, which is rounded and a little prominent, slightly exceeds half that of the facial space, and its lower margin, looked at from above, has a slightly pointed form in the middle. Caput rather large, and its profile convex behind the eyes, but no distinct elevation. The ocular area, a portion of the occiput, and the clypeus are roughened or covered with minute granulosities and short hairs; colour deep brown. There is no longitudinal indentation backwards from near the hindlateral eyes.

Eyes unequal in size, occupying the whole of the broad fore part of the caput. The posterior row is much curved, the convexity of the curve directed backwards, and the anterior row very slighty curved in the same direction. The interval between the hind-centrals exceeds an eye's diameter, but is rather less than that which separates them from the hind-laterals. The lateral pairs, which are the largest, are each seated on a strong tubercular prominence. The fore-centrals are smallest, and are divided by an eye's diameter from each other, but by a diameter
and a-half from the fore-laterals. The fore-central eyes form a quadrangle longer than broad, and its fore-side much the shortest.

Legs short, rather strong, 4, 1, 2, 3 ; colour yellow-brown, furnished with hairs only.

Palpi short (excepting the digital joints, which are darkbrown), similar to the legs in colour. Cubital and radial joints about equal in length; the radial is strong, broad, and of a spreading or somewhat mushroom shape; near the outer side at its fore extremity is a small spine-like tapering, somewhat sinuous, apophysis, its fore extremity drawn out into a fine hair-like point. The digital joint is large and sub-conically prominent on the inner side. Palpal organs prominent and highly developed. A long very prominent circularly-curved black tapering spine issues from near the base on the outer side of a large prominent corneous process, and has its filiform point in a kind of coil beyond the extremity of the palpal organs on their inner side. Just in front of the base of this long black spine there issues forwards, from within a strong hollow corneous process, a tolerably long, slightly curved, black pointed spine, directed forwards and inwards beneath the fore extremity of the digital joint.

Falces, maxilla, and labium dark yellowish-brown.
Sternum as broad, or broader, than long, very convex, and of a shining black-brown colour.

Abdomen short, oval, black, and covered with short hairs.
An adult male of this spider was found by Mr. W. Evans in the Isle of Bute some years ago, and was mistaken for a closelyallied species-Cnephalocotes curtus, Sim.

Tapinocyba insecta? L. Koch. Pl. B, Figs. 20, 21, 22, 23.
? Erigone insecta, L. Koch, Beitr. z. Kenntniss der Arachniden fauna Tirols Naturwissenschaftliche Abtheilung, 1868, II., p. 187.

Ploesiocrorrus insectus, L. Koch-Sim., Arachn. de France, V., p. 774.

Adult male, length I line ; adult female I line.

Cephalothorax longer than broad, uniformly convex above, no distinct elevation of the caput; lateral marginal impressions at caput scarcely perceptible ; height of clypeus rather less than half that of the facial space. Colour yellow-brown. From near behind each hind-lateral eye, and between it and the hindcentral, a long slightly-curved and a little-divergent tapering indentation runs backwards, the extremities slightly converging.
Eyes of moderate size, sub-equal, and occupying a considerable area. Posterior row very strongly curved, the convexity of the curve directed backwards; hind-centrals about a diameter's interval apart, but nearly three times that distance from the hind-laterals. Anterior row very slightly curved, its convexity directed forwards. The fore-centrals are very near to each other, but not contiguous, and about a diameter's distance from the fore-laterals. The length of the central quadrangle is double the breadth, and its fore-side is shortest.
Legs moderately long, sub-equal, 4, 1, 2, 3, of a yellow-brown colour, and furnished with hairs only.
Palpi moderate in length, of a pale yellow-brown hue. The radial and digital joints dark yellow-brown. The radial is a little shorter than the cubital joint and much stronger, very broad and spreading in front and on the sides, its anterior margin very strongly emarginate, leaving two strong cusps, that on the outer side shortest, strongest, and blunt-angularly pointed, the inner one a little longer, less strong, tapering, and curved, its obtuse point directed outwards. Palpal organs well developed, but not very complex. A large somewhat circular pale corneous bulb projects on their outer side, and one or two small black spiny processes at their anterior extremity.
Falces, maxilla, labium, and sternum yellow brown.
Abdomen short-oval ; dark yellow-brown; clothed thinly with fine hairs.
The female resembles the male in general character and colour, but the eyes of the posterior row are nearly equally separated from each other. The genital aperture is of very simple but characteristic form. (See Fig. 23, Pl. B.)

Adults of both sexes were found at Hexham by Dr. $\Lambda$. R. Jackson. They are identical with the spider described and figured by M. Simon, 1.c., of which I have an example received in 1872 from M. Simon; but whether they are identical with Dr. L. Koch's species does not seem to me quite certain. The type of the latter (if still in existence) may be in the Imperial Museum at Vienna, and, so far as I am aware, no other authentic example has ever yet been recorded. The spider I have described now certainly does not very well accord with drawings of his type sent to me by Dr. L. Koch in 1869.

Trochosa postuma, sp. n. Pl. B., Fig. 25.

Adult female, length $2 \frac{1}{2}$ lines.
Cephalothorax oval; lateral marginal impressions at the caput slight. Colour yellow-brown with two longitudinal lateral darker bands, formed by patches indicating the normal thoracic indentations, and leaving between them a central pale yellowbrown stripe, tapering to its hinder extremity; there is also a narrow sub-marginal brownish stripe and a blackish marginal line.

Eyes normal. The four posterior eyes form nearly a square, whose fore side is shortest. The anterior pair of these eyes are largest, and are separated by rather more than a diameter's interval. The four small anterior eyes form a slightly curved line; rather shorter than the two largest above them and the convexity of the curve directed forwards; the two centrals are the largest, and separated from each other by an eye's diameter, or less than that which separates them from the lateral.

The legs are of moderate length, 4, 1, 2, 3; colour pale yellowbrown; the femora indistinctly annulated with darker brown.

The palpi are similar to the legs in colour.
The maxillce, labium, and sternum yellow-brown.
Abdomen shrunken, deposition of ova having evidently taken place ; its colour is dull yellow-brown, with faint indications of the ordinary Lycosid markings. The genital aperture is of
moderate size and of characteristic form. Although the colours and pattern of this spider had become much obliterated, I am induced to describe it, as the form of the genital aperture appears to be sufficient to determine it. A single example sent to me from Balmoral many years ago by the late Colonel Pickard, R.A.

## LIST OF GENERA AND SPECIES ABOVE NOTED AND DESCRIBED.

Araneidea.

| Drassus pubescens, Thor. | p. 42. |  |  |
| :---: | :---: | :---: | :---: |
| Phaeocedus parvus, sp. n. | p. 43 . | Pl. A | Figs. 1, 2, 3. |
| Prosthesima rustica, L. Koch | p. 43. | Pl. B | Fig. I . |
| Zora nemoralis, Bl. | p. 43. |  |  |
| Agroeca celans, Bl. | p. 43 . |  |  |
| ,, celer, Cambr. | p. 43. |  |  |
| ,, striata, Kulcz. | p. 43 . |  |  |
| ,, chrysea, C. L. Koch | p. 43. |  |  |
| Protadia patula, Sim. | p. 44. |  |  |
| ,, subnigra, Cambr. | p. 44. |  |  |
| Cryphoca diversa, Cambr. | p. 44. |  |  |
| Agelena longipes, Carpenter | p. 44. | Pl. A | Figs. 4, 5. |
| Coelotes terrestris, Wid. | p. 44. |  |  |
| Hahnia helveola, Sim. | p. 45. |  |  |
| Episinus truncatus, Walck. | p. 45 . |  |  |
| Theridion impressum, L. Koch | p. 45. |  |  |
| Onesinda minutissima, Cambr. | p. 45. | Pl. B. | Fig. 2. |
| Lithyphantes corollatus, C. L Koch | p. 45. |  |  |
| Laseola coracina, C. L. Koch | $\text { p. } 45$ | Pl. | Figs 6, 7, 8 |

Enoplognatha thoracica, Hahn. p. 46.

Robertus neglectus, Cambr.
p. 46 .

Leptyphantes minutus, Bl.
p. 46.

Bathyphantes pullatus, Cambr.
p. 46 .
" setiger, F. O. P. Cambr. p. 47.
Tmeticus arcanus, Cambr.
p. $4 \%$.
p. 47. Pl. A. Figs. 13A, $13 \mathrm{~B}, 13 \mathrm{C}$.
p. 47. Pl. A. Figs. 14, 15, 16, 17, 18.
p. 47. Pl. A. Figs. 12, 13.
,, commodus, sp. n.
p. 47. Pl. A. Figs. 9, Io,
II.
,, reprobus, Cambr.
,, Huthwaitii, Cambr.
Sintula fausta, Cambr.
Syedra pholcommoides, Cambr.
p. 47.
p. 47 .
p. 48. Pl. B. Fig. 3.
p. 48 .

Gongylidium retusum, Westr.
Tiso vagans, Bl.
p. 48.
p. 48 .

Erigone longipalpis, Sund.
p. 48. Pl. B. Fig. 4.
p. 49. Pl. B. Fig. 5.
p. 49. Pl. B. Fig. 7.
p. 50. Pl. B. Fig. 6.
p. 50. Pl. B. Fig. 8.
p. 50. Pl. A. Figs. 19, 20, 21.

Lophomma stativum, Sim.
,, laudatum, Cambr.
subæquale, Westr.
Enidia, F. P. Smith (gen. substituted for Dicyphus, Menge, preoccupied) p. $5^{1}$.
Diplocephalus Beckii, Cambr.
p. $5^{1}$.

Entelecara Thorellii, Westr.
p. 51 .
omissa, Cambr.
p. 5 I.

Pocadicnemis pumilus, Bl.
p. 51 .

Troxochrus hiemalis, Bl. p. 52.
Cnephalocotes obscurus, Bl.
p. 52 .
" interjectus, Cambr.
p. $5^{2}$.

Pl. B. Figs. 13, 14, 15.
elegans, Cambr. p. 52. Pl. B. Figs. 1 1, 12. curtus, Sim.
p. 52 .
ambiguus, sp. n.
p. 52. Pl. B. Figs. 16, 17 ,

$$
18,19 .
$$

Tapinocyba insecta, L. Koch p. 52. Pl. B. Figs. 20, 2 I, 22, 23.
Panamomops bicuspis, Cambr.
p. 53 .

Baryphyma pratensis, Bl.
p. 53 .

Wideria subita, Cambr.
p. 53 .
fugax, Cambr.
p. 53 .

Walckenaera nodosa, Cambr.
p. 53 .
," obtusa, Bl. p. 53.
,, nudipalpis, Westr.
p. 53 .
capito, Westr.
p. 53. Pl. B. Fig. 24.

Cornicularia vigilax, Bl.
p. 53 .

Cercidia prominens, Westr.
p. 54 .

Singa pygmæa, Sund.
p. 54 .

Epeira triguttata, Fabr.
p. 54 .

Xysticus bifasciatus, C. L. Koch
p. 54 .
,, luctuosus, Bl.
p. 54 .

Oxyptila simplex, Cambr.
p. 54 .
,, sanctuaria, Cambr.
p. 54 .

Philodromus rufus, Walck.
p. 54 .

Trochosa spinipalpis, F. O. P.

Cambr.
postuma, sp. n.
Lycosa agricola, Thor. herbigrada, Bl.
Hasarius arcuatus, C. L. Koch ,, Adansonii, Sav.
p. 55 .
p. 55. Pl. B. Figs. 25, 26.
p. 55 .
p. 55 .
p. 55 .
p. 55 .

## Phalangidea.

Sclerosoma quadridentatum, Cuvier p. 55.
Romanum, L. Koch p. 55.
Oligolophus Meadii, Cambr.
p. 56 .

Hansenii, Kraepl.
p. 56 .

Chernetidea.
Obisium maritimum, Leach
p. 56 .
Chernes cyrneus, L. Koch
p. 56. Pl. B. Figs. 27, 28.
,, phaleratus, Sim.
p. 56 .
,, rufeolus, Sim.
p. 56. Pl. B. Figs. 29, 30.

Acaridea.
Glyphopsis Bostocki Michael p. 56.

For synonyms and other information upon the Arachnida included above see-

Araneidea-Spid. Dors., 1881, and Papers subsequently published in the Proc. Dors. N.H. and A.F. Club, 18821903. Also List of Brit. and Irish Spiders, 1900.

Phalangidea-See Monograph of British Phalangidea, Proc. Dors. N.H. and A.F. Club, Vol. XI., 1890.

Chernetidea-See Monograph on the British Species of Chernetidea or False Scorpions, l.c., Vol. XIII., 1892.


## Dorsef zifants.

By the Rev. E. F. Linton, M.A.


[ HE second edition of the Flora of Dorset was issued in 1895 , and consequently some ten years have elapsed since its issue, and it seems a fitting time to put on record such additional species and varieties as have since been observed in the county, and such localities of rarer plants as help to fill a gap in one or other of the districts. The seven districts into which the county was divided by the late J. C. Mansel-Pleydell, Esq., for the purposes of the Flora were lettered from A to $G$; $G$, for instance, denoting the Isle of Purbeck; F, the Stour watershed below Shillingstone; E, that part of it in the county above Shillingstone ; and so on. These letters I have introduced in this paper for easy reference to and comparison with the Flora of Dorset. The nomenclature is that of the London Catalogue, Ed. IX.; and, where it differs from that of the Flora, the synonym used in the latter is added in a bracket.

Myosurus minimus, L. F. A little S. of Wimborne ; Edmondsham.

Ranunculus Lingua, L. F. Cowgrove, Wimborne. R. arvensis, L. E. Twiford, Compton Abbas.

Helleborus viridis, L. D. Reported to me from Bloxworth by the Rev. O. Pickard Cambridge. F. Fdmondsham. The locality, " near Iwerne," should stand in the name of Mrs. Acton, the finder, who told me of it, and I passed it on to the Rev. R. P. Murray. H. fotidus, L. F. Ranston Wood, near a gamekeeper's cottage, and suspected of being introduced.

Aquilegia vulgaris, L. F. Hod Hill; Okeford Hill.
Papaver dubium, L. var. Lecoqii, Lamotte. E. Twiford. F. Iwerne Minster.

Chelidonium majus, L. E. On a wall, Compton Abbas; a very hispid form, perhaps due to dry situation. Locally called "Sollomtyne" (Cranborne).

Fumaria densiflora, DC. D. Mouth of Lytchett Bay, specimen from L. V. Garland-Lester.

Cheiranthus Cheiri, L. C. Walls, Dorchester.
Arabis hirsuta, Scop. (A. sagittata, DC.). E. Compton Abbas. F. Hod Hill. A. perfoliata, Lam. A. "Plenty near Bridport in Dorset," Notes on Drawings for English Botany in Journ. Bot., 1903, Suppl., p. 19. F. A specimen from Constitution Hill, Parkstone, was shown me by A. E. Hudson.

Nasturtium silvestre, R. Br. F. A very narrow-leaved form, probably of foreign extraction, occurred in 1893 on ground where refuse may have been thrown, by Durweston Mill.

Alyssum calycinum, L. F. Kinson; near Badbury Rings. Very scarce in both stations. A. maritimum, L. F. With rubbish on the shore near Parkstone.

Cochlearia danica, L. F. Near the shore N. and E. of Poole.
Sisymbrium Sophia, L. F. By the Mill, Durweston. Introduced ?

Coronopus didymus, Sm. (Senebiera didyma, Pers.). F. Parkstone and Poole, near the Park.

Brassica oleracea, L. C. Arish Mill. G. Worbarrow Bay.
Lepidium Draba, L. F. Branksome Park, Miss M. Blackman. G. Goatarne, by Poole Harbour, Miss Ella Smith.

Viola palustris, L. F. Moist woodland, Sutton Holms. V. hirta $\times$ odorata. F. At two spots near Sutton Waldron. E. Near Fontmell.
V. silvestris, Reich. The commoner species on the chalk and London Clay, flowering two or three weeks earlier than $V$. Riviniana, Reich. F. Both occur at Edmondsham. The latter is more frequent in heath districts, where I have not observed the former at all.
V. ericetorum $\times$ Riviniana. F. Railway bank near Dagham's Road. V. tricolor, L. D. Field S. of Morden Decoy. The type is rare in the county. A pure yellow form, which I have no name for, occurs in chalky fields.

Saponaria Vaccaria, L. E. In some quantity in a chalky fodder field, Compton Abbas, 1894. S. officinalis, L. E. Strongly established along a hedge-bank between Compton Abbas and Fontmell. F. Longfleet to Parkstone.

Silene Cucubalus, Wibel., var. puberula, Syme. E. and F. Not uncommon on the chalk, Shillingstone; N. and S.W. of Blandford. S. conica, L. F. In another spot at Parkstone ( 2 m . from Mr. Molesley's locality), where this very rare plant has all the appearance of being native. S. noctiflora, L. F. Two fields between Foxholes Wood and the railway near Baileygate. Not in the Flora.

Cerastium semidecandrum, L. Hardly so common as to deserve no localities. F. Ensbury; near Cranborne; Longfleet; Verwood. D. N.E. of Wareham; Lytchett Minster. G. Studland; Corfe Castle. C. tetrandrum, Curt. F. Abundant from Parkstone to the Sandhills, and along the Sandhills to the Haven. C. arvense, L. F. Alderholt; fieldside, Wallis Down. G. A glabrate form, greener than usual, S. of Creech Grange.

Spergula arvensis, L., var. vulgaris, Boenn. F. Heatherlands; Hamworthy; Wool Bridge. D. N. of Wareham. Var. sativa, Boenn. F. Canford Cliffs; Parkstone; Heatherlands; Hamworthy ; Broadstone; Kinson. The varieties are not distinguished in the Flora. I have few notes of the first and commoner variety.

Buda rupestris, F. J. Hanbury (Lepigonum rupestre, Kindb.). C. Weymouth Bay, J. W. White (Journ. Bot., 1896, 432). G. Durlston Head.

Claytonia perfoliata, Donn. F. Parkstone, Miss M. Wentworth Shields; near the Haven Hotel.

Hspericum dubium, Leers (H. quadrangulum, L.). F. Queen's Wood, Horton ; W. of Verwood Station; Sutton Common; Cross Keys, near West Moors.

Lavatera arborea, L: F. Parkstone, near Poole Park; Hamworthy Junction. Usually a casual now, though formerly native.

Tilia cordata, Mill. (T. parvifolia, Ehrh.). F. In some quantity about looyds. W. of Verwood Station, in a hedgerow. I have not seen it yet in the old and only other Dorset station, woods in Cranborne Chase.

Geranium striatum, L. D. Roadside, out of Bere Regis, 1894, not a native. G. pyrenaicum, L. E. Compton Abbas.

Ononis spinosa, L. E. East Orchard; rare in the county, except in the north and north-west.

Medicago falcata, L. C. Radipole towards Weymouth, J. W. White (Journ. Bot., 1896, 432).

Trifolium medium, L. E. and F. Frequent E. and N.E. of Blandford. G. Bushey, near Corfe Castle.

Anthyllis Vulneraria, L. F. Between Edmondsham and Verwood Station. E. Plentiful near Compton Abbas. Rather rare away from the coast.

Lathyrus Aphaca, L. E. Melbury Hill. L. Nissolia, L. E. East Orchard.

Prunus Avium, L. F. Ensbury; Foxholes Wood; near Durweston; Edmondsham. P. Cerasus, L. F. Kinson ; Edmondsham to Woodlands.

Rubus suberectus, Anders. F. Alderholt. R. sulcaitus, Vest. F. Alderholt. $R$. opacus, Focke. D. One mile N.E. of Wareham. R. integribasis, P. J. Muell. C. Wool. D. Bere Regis. R. affinis, W. and N. C. Wool. F. Alderholt. Var. Briggsianus, Rogers. Woolbridge and N. of Verwood. $\boldsymbol{R}$.
carpinifolius, W. and N. G. By the Railway N.W. of Corfe Castle, near Creech. $R$. incurvatus, Bab. Plentiful on heath N. of Corfe Castle; not quite typical. R. mollissimus, Rogers. F. N. of Verwood Station, abundant. G. Near Corfe Castle, R. infestus, W. and N. F. Newtown, I m. north. R. dumetorum, W. and N., var. ferox, Weihe. D. Lytchett Minster. F. Longfleet; Kinson ; Corfe Mullen; Wimborne.

Geum rivale, L. F. Alderholt; Edmondsham ("wild columbine"). D. Meadows N.W. of Wareham.

Potentilla argentea, L. C. West of Wareham Station; near Hethfelton Plantation, N. of Wool.

Alchemilla vulgaris, L. The Dorset plants of which I have seen specimens are all the segregate $A$. filicaulis, Buser; viz., C. Evershot, in plenty near the school, hb. W. M. Rogers; Rampisham to Wraxall, hb. J. C. Mansel-Pleydell. F. Filgroves, hb. J. C. Mansel-Pleydell.

Rosa lucida, Ehrh. F. Longfleet; Wallis Down. Well established, though not native.

Pyrus torminalis, Ehrh. E. Piddle Wood.
Saxifraga granulata, L. F. Near Cranborne.
Chrysosplenium oppositifolium, L. F. Edmondsham.
Sedum reflexum, L., var. albescens, Haw. F. Abundant on banks on the Longfleet side of Parkstone; Broadstone.

Epilobium roseum, Schreb. D. Near Wareham Station. In the critique on the Flora of Dorset in the Journal of Botany it was remarked that there were no Epilobium hybrids. The fact is they appear to be very scarce in the county. I have only noticed one, viz., E. obscurum $\times$ parviflorum. D. Lytchett Minster.

Enothera biennis, L. F. By the railway, Poole Park. ©E. odorata, Jacq. D. By the railway, Hamworthy to Wareham.

Smyrnium Olusatrum, L. E. Roadside banks, Manston, in plenty.

Carum segetum, Benth. and Hook. fil. C. West Lulworth. E. Hinton St. Mary; Manston. F. Shillingstone to Durweston; Shapwick, on several hedge banks; Hemsworth; Kingston Lacy ; Longfleet ; \&c.

Crithmum maritimum, L. F. On the railway causeway, Parkstone.

Caucalis arvensis, Huds. E. Compton Abbas.
Sambucus Ebulus, L. E. Hinton St. Mary.
Galium erectum, Huds. F. Badbury ; Spetisbury ; near Blandford. G. tricorne, Stokes. E. Twiford. G. Vaillantii, DC. D. By Wareham Station. F. Near Hamworthy Junction. Centranthus ruber, D. C. C. Walls, Preston.
Valerianella dentata, Poll., var. mixta, Dufr. C. Cult. ground, Portland, J. W. White (Journ. Bot., 1896, 432). G. On a broken, grassy slope at Seacombe, which looked like a native station. The variety is not given in the Flora.

Filago apiculata, G. E. Smith. F. Sandy ground, gone out of cultivation, and since built over, Parkstone, half-way to Branksome ; plentiful, 1894-95. New to the county.

Inula Helenium, L. E. East and West Orchard. F. By Piddle Wood. I. crithmoides, L. G. Rocks just W. of Tilly Whim caves.

Matricaria Chamomilla, L. F. Parkstone to Longfleet; Edmondsham.

Artemisia Absinthium, L. F. Waste ground by border of heath, Talbot ; most likely introduced here. G. Near Corfe Castle. A. maritima, L. In plenty near the mouth of Corfe River.

Senecio campestris, L. E. Compton Abbas.
Arctium majus, Bernh. E. Shillingstone. F. Stepleton.
Carduus crispus $\times$ nutans. F. A fine plant of this hybrid, Sutton Waldron.

Centaurea Cyanus, L. F. Near Longfleet Church.
Crepis taraxacifolia, Thuill. E. Compton Abbas. F. Kinson. G. Goatarne, Miss Ella Smith.

Hieracium riyidum, Htn., var. trichocaulon; Dahlst. F. Frequent and abundant along the line between Parkstone and Branksome Stations. Var. acrifolium, Dahlst. Woodland here and there in Parkstone. H. boreale, Fr., var. Hervieri, Arv.Touvet. D. Heath between Hamworthy Junction and Lytchett

Minster, F. Woodlands. H. umbellatum, L. E. Piddle Wood. Var. coronopifolium, Bernh. F. Wallis Down; West Moors; Queen's Wood, Horton; Woolbridge Heath. D. Lytchett Matravers. These Hawk-weed varieties are new to the Flora.

Taraxacum officinale, Web. A form which appears to be var. corniculatum, DC., and does not agree with any of our other varieties, occurs on downs, e.g., F. S. of Shillingstone; $1 \frac{1}{2} \mathrm{~m}$. E. of Blandford ; Badbury. G. Near Swanage.

Lactuca muralis, Fresen. F. Cranborne. G. Creech Grange, by the road through the wood.

Campanula glomerata, L. E. Melbury Hill. F. Iwerne Minster. C. rapunculoides, L. Borders of E. and F. Rabbit warren, east of Sutton Waldron, far from any house.

Specularia hybrida, A. DC. E. Compton Abbas.
Erica ciliaris, L. F. Heath near the waterworks, Parkstone. G. All along the Corfe River on the adjoining heath. The hybrid with E. Tetralix also occurs at Parkstone in some quantity.

Vinca major, L. E. Fontmell. F. Longfleet; Upton. $V$. minor, L. F. Upton; Screech Hill, near St. Giles; Edmondsham.

Chlora perfoliata, L. The "Compton Abbas," placed in District C. in the Flora, should be in District E.

Hyoscyamus niger, L. E. Okeford Hill. F. Canford.
Solanum nigrum, L., var. luteovirescens, Gmel. C. Wareham, just east of the town. F. Longfleet, in plenty, on waste ground. G. Redcliff.

Verbascum Lychuitis, L. F. St. Giles' Park, near a lodge on the east side. V. Blattaria, L. D. Winterborne Zelstone, one casual plant.

Mimulus Langsdorfi, Donn. (M. luteus, L.). F. Edmondsham. Orobanche elatior, Sutton. E. Fontmell. F. Edmondsham, near St. Giles' Park.

Mentha rotundifolia, L. D. Bloxworth, W. R. Linton. G. Corfe Castle. M. arvensis, L., var. Nummularia, Schreb. F. Hamworthy Junction. Var. praecox, Sole. F. West Moors.

Chenopodium polyspermum, L. F. Kinson; S. of Henbury Hill; Woodlands.

Salicornia herbacea, L., var. ramosissima, Woods. Not so common as the Flora would indicate. D. Lytchett Bay. F. Parkstone Saltmarsh. G. Mouth of Corfe River. S. appressa, Dumort. F. Hamworthy. G. Near the mouth of Poole Harbour ; new to county.

Polygonum mite, Schrank. D. Lytchett Minster. F. Kinson; Hampreston ; W. Parley ; Cowgrove, Wimborne ; Sturminster Marshall. G. Stoborough meadows. P. minus, Huds. D. Wool, by the bridge ; near Tonerspuddle. F. Talbot; Dudsbury; West Moors; Verwood.

Euphorbia platyphyllos, L. F. Edmondsham.
Buxus sempervirens, L. E. Near Fontmell, introduced. F. Stourpain Gorse, near Pimperne, on the débris of a lime kiln, very strong, but perhaps not native.

Carpinus Betulus, L. "Generally distributed" in the Flora; no localities given. D. A mile or more up the R. Piddle above Wareham. This is the only occurrence of the species I have met with in the county, where it seems to me very rare.

Salix triandra, L. D. Wareham to Trigon. S. Hoffmanniana, Sm. D. Wareham to Trigon. E. Compton Abbas ; East Orchard. F. Kinson; Wimborne ; Alderholt; Iwerne Minster. G. Corfe Castle; Littlesea. S. ambigua, Ehrh. G. Littlesea.

Empetrum nigrum, L. F. Sandhills, Parkstone, Mr. C. B. Clarke.
Juniperus communis, L. E. Melbury Hill.
Pinus Pinaster, Ait. D. Whole copses, Lytchett Minster to Wareham ; Morden Park; Sandford. F. Broadstone. G. Rempstone Wood and Heath; Studland; Arne.

Taxus baccata, L. F. Stourpaine Furze Down; frequent and native about Edmondsham and St. Giles.

Listera cordata, R. Br. F. Discovered in Branksome Park by Miss E. Armitage in 1895, who saw one plant. I found a few more soon after.

Orchis pyramidalis, L. E. Fontmell. F. Stourpaine; Cranborne. O. ustulata, L. F. Stourpaine. O. ericetorum, Linton. D. Hamworthy Junction to Sherford Bridge; Morden Decoy. F. Talbot Heath, near Bournemouth, frequent ; Broadstone ; West Moors; Verwood; Goatham, Edmondsham. G. South Haven, W. M. Rogers; Arne ; Bushey.

Habenaria Conopsea, Benth. E. Compton Abbas and Melbury Hill.

Ophrys muscifera, Huds. F. East end of Okeford Hill. G. Creech Grange.

Allium oleraceum, L. E. Compton Abbas.
Gagea fascicularis, Salisb. E. In a woud, Hinton St. Mary, Rev. E. Acton.

Colchicum autumnale, L. E. Near Fontmell.
Paris quadrifolia, L. F. South of Okeford Fitzpaine.
Juncus compressus, Jacq. C. Fleet to Wyke Regis, J. W. White. F. Crichel Pond. These are the only stations in the county, the former record for Poole being an error for $J$. Gerardi, Loisel. J. obtusiflorus, Ehrh. D. Lytchett Bay. F. Near the Salterns, Parkstone. G. Near the mouth of Corfe River.

Luzula Forsteri, DC. F. Westley Wood; Hemsworth; Crichel ; Edmondsham. L. Forsteri x vernalis (L. Borreri, Bromf.), hybrid. F. With both parents, Crichel.

Sparganium ramosum, Curtis, var. microcarpum, Neum. D. Bere Regis. G. S.W. of Wareham. S. neglectum, Beeby. F. East of Horton village; Woodlands; Woolbridge.

Lemna trisulca, L. Ditches between Wareham and the station, in plenty. L. gibba, L. C. Ditches east of Wareham. D. Ditches near Wareham Station.

Butomus umbellatus, L. D. Ditches between Wareham and the station.

Potamogeton alpinus, Balb. (P. rufescens, Schrad.). D. Near Trigon, 2-3 miles above Wareham. F. West Moors. $P$. decipiens, Nolte. G. R. Frome, near the Wareham to Swanage railway bridge. P. crispus, L., var. cornutus, Linton. E. Pond,

Manston. P. obtusifolius, M. and K. F. Recorded, rightly or wrongly, by Pulteney, for the R. Stour and its ditches, Dorset. (See note, Flora of Hants, ist Ed., p. 331.) Ruppia rostellata, Koch. F. Hamworthy to Lytchett Bay, abundant; a dwarf form on harbour mud exposed at low tide. D. Lytchett Minster, abundant in a ditch separated by a bank from the harbour.

Zannichellia palustris, L. F. Almer; 2 m. above West Moors, near Cross Keys.

Zostera marina, L., var. angustifolia, Fr. D. Lytchett Minster. F. Parkstone, W. M. Rogers: G. Near the mouth of Poole Harbour, near South Haven. Z. nana, Roth. D. Lytchett Minster. F. Near the clay pits by Lake, Hamworthy ; Sterte, near Poole; Parkstone. G. In the mouth of the Corfe River.

Scirpus silvaticus, L. F. East Moors River by the L.S.W.R. bridge. S. Caricis, Retz. (Blysmus compressus, Panz.). F. Cowgrove, Wimborne.

Cladium germanicum, Schrad. D. Marsh $\frac{3}{4} \mathrm{~m}$. east of Wareham Station. Probably extinct at Morden Mill.

Carex dioica, L. G. Bushey, near Corfe Castle. C. pulical is, L. D. N.E. and N.W. of Wareham. F. Near Broadstone; Woolbridge; Edmondsham. G. Stoborough; Wareham Heath, Corfe Castle; Rempstone; Godlingston Heath. C. echinata, Murr. D. Sherford Brook ; Morden Decoy; Lytchett Matravers. F. Talbot Heath; West Moors; East Moors River; Peat Moors River. G. Arne ; Corfe Castle; Rempstone ; Bushey ; Littlesea. C. axillaris, Good. G. Langton Matravers, L. V. GarlandLester. C. acuta $\times$ Goodenowii, nov. hybr. D. Between Wareham and the railway. C. humilis, Leysser. E. Melbury Hill. F. East end of Okeford Hill. C. laevigata, Sm. D. Copse N. of East Morden ; Lytchett Matravers. F. Near Canford ; Henbury Hill ; Alderholt and Edmondsham, abundant. C. distans, L. D. Lytchett Bay. F. Almer ; Kingston Lacy ; High Hall ; rare inland. C. extensa, Good. D. By Lytchett Bay. F. By the Harbour N. of Poole ; also E. and S.E. of Hamworthy Junction. C. filiformis, L. D. Besides Morden Decoy, whence I first
recorded this rare sedge for Dorset, I have found it between Wareham and Keysworth. C. pseudo-cyperus, L. F. West Moors; Woolbridge.

Panicum Crus-galli, L. F. Nursery garden, Constitution Hill, Parkstone ; casual.

Setaria viridis, Beauv. F. Waste ground near Longfleet Church, and near Poole Park; Bailey Gate; Hamworthy Junction.

Spartina Townsendi, H. and J. Groves. G. Near Owre, J. C. Mansel-Pleydell. New to County Flora.
Homalocenchrus oryzoides, Mieg. (Leersia oryzoides, Sw.). Ditch between Wareham and the station, W. Mitten. New to County Flora.

Calamagrostis Epigeios, Roth. F. Edmondsham to Woodlands.

Gastridium australe, Beauv. (G. lendigerum, Gaud.). F. Edmondsham; rare away from the neighbourhood of the coast.
Avena strigosa, Schreb. F. Cult. ground between Bournemouth and Talbot. A. pubescens, Huds. E. Compton Abbas. F. Shillingstone ; Spetisbury. A. pratensis, L. E. Melbury Hill. F. Hambledon Hill.
Keleria cristata, Pers. E. Melbury Hill.
Catabrosa aquatica, Beauv. F. Kinson; Cowgrove, Wimborne ; Corfe Mullen; Sturminster Marshall to White Mills; Shapwick. G. Stoborough ; Bushey; Woolgarston.
Poa nemoralis, L. F. Under Hod, amid trees by the Stour.
Festuca Myurus, L. C. On a wall, Osmington. F. arundinacea, Schreb. C. By the shore, Osmington.
Bromus erectus, Huds. F. Screech Hill, Cranborne ; Edmondsham, B. mollis, L., var. interruptus, Hackel. F. Cultivated field, Edmondsham to Verwood Station. New to county. B. arvensis, L. F. Almer.

Lolium temulentum, L. Only recorded for Dorset on the authority of Bell-Salter, who gives no locality. Neither does Mr. J. C. Mansel-Pleydell. I was, therefore, pleased to find it in some quantity in a field of rye at Edmondsham. The Darnel
is perhaps sometimes overlooked, because from above the thin edge of its distichous spikes is almost invisible; viewed horizontally, however, it is easily to see it. I am speaking of the fruiting stage, when the spike is weighed down and arching. One or two men at Edmondsham knew it by the name of "Cheat." The form found here was the awnless var. arvense, With.

Lepturus filiformis, Trin. G. Littlesea.
Elymus arenarius, L. F. Flag Head Chine and adjoining cliff, and by the Haven Hotel.

Asplenium Adiantum-nigrum, L. F. Cowgrove, Wimborne; near Bailey Gate; Westley Wood; Witchampton; Sutton Holms; Edmondsham. G. Bushey ; Knowle Hill. A. Trichomanes, L., said to be common in the Flora, but far from being so in East Dorset. In the whole of F. I have seen it only once, the churchyard wall of one of the Gussages. G. Corfe Castle ; Creech Grange.

Ceterach officinarum, Willd. F. Near Bailey Gate. Very rare in this district. G. Swanage ; I m. east of Corfe Castle.

Lastraa Oreopteris, Presl. G. Heath near Studland. L. spinulosa, Presl. F. South of Canford; West Moors River; Alderholt.

Osmunda regalis, L. F. West Moors River; Woolbridge; between West Moors and Hern Bridge, about half way. G. Stoborough; Wareham Heath and S.W. of Wareham; Studland Heath, in great quantity near the S. end of Littlesea; Arne.

Ophioglossum vulgatum, L. D. Lytchett Minster; E. of Wareham Station. F. Meadows by the Stour, Shapwick, both sides of the river ; field by Bailey Gate Station; abundant near Kingston Lacy; Edmondsham.

Botrychium Lunaria, Sw. F. Near Branksome Chine (1895), and still flourishing, 1904.

Chara vulgaris, L. E. Okeford Fitzpaine, in a brickyard pit. Var. papillata, Wallr. E. West Orchard.

Lamprothamnus alopecuroides, Braun. This rare and beautiful species, an account of which was given in these "Proceedings"
(Vol. XIII., p. 163, 1892), by the President, together with an admirable plate, I had the good fortune to find in some pits just reached by high tides in District F. to the west of Hamworthy Junction.

I have accumulated many more notes of localities additional to the Flora of Dorset, many of which are published in my Flora of Bournemouth ( 1900 ); but the above list is long enough for its purpose of supplementing the facts given in the Flora of Dorset and filling out the geographical distribution of our less common species and varieties,



## Ziefurns of 彐̉ainfalf, \&c., in きorsef int 1904.

By H. STILWELL.

 excess of the normal. Compared with the average deduced from the Table of Constants given in the Appendix to the Report for 1898, the ratio has been as $102^{\circ} 6$ to 100 . In this respect it differs from the general experience of the rest of the country. Elsewhere 1904 has been a dry year.

The average Rainfall of 48 stations taken in various parts of the county amounted to 34.53 inches, distributed as under:-

| Month. |  | Total. | Proportion. |  | Difference in 1904. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1904. | 18.6 to 1903. |  |
|  |  | Ins. |  |  |  |
| January .. | - | 5.309 | 154 | 96 | + 58 |
| February | . | $5 \cdot 035$ | 146 | 75 | + 71 |
| March . | .. | $1 \cdot 633$ | 47 | 69 | - 22 |
| April | $\cdots$ | $1 \cdot 276$ | 37 | 67 | - 30 |
| May .. | -• | $3 \cdot 001$ | $8{ }^{7}$ | 59 | + 28 |
| June .. | . | 1.065 | 31 | 66 | - 35 |
| July . | . | 3.227 | 94 | 70 | +24 |
| August .. | . | 3.856 | 112 | 80 | +32 |
| September | . | $2 \cdot 532$ | 73 | 91 | - 18 |
| October . . | . | 2357 | 68 | 118 | - 50 |
| November | . | 1.637 | 47 | 104 | - 57 |
| December | .. | 3.60 ? | 104 | 105 | - 1 |
| Total .. | . | 34.530 |  |  |  |

Here it will be noticed that, having regard to the time of year, January, February, May, July, and August, were wet months, that the autumn was fine and dry, and that in December the rainfall was nearly normal. For the 49-year period, 1856-1904, the average rainfall, ascertained by assigning the same value to each year's return, independent of the number of stations, is 33.769 inches.

With regard to individual stations, the greatest amount, $43^{\circ} 44$ inches, was registered at Cattistock; the smallest, 26.28 inches, at Buckhorn Weston. The latter had not only the smallest rainfall in the county, but it was relatively the dryest station, the ratio to the average annual fall being $92^{\prime} 18$. Other places with a small proportionate fall are Winterbourne Houghton, with a percentage of 93.04 ; Melbury, $95^{\circ} 25$; Gillingham, 96.27 ; and Beaminster, 96.32 . On the other hand, the following are the largest proportionate falls recorded :Wimborne, in7.16; Bridport (Coneygar), $1144^{2}$; Dorchester Waterworks, 110.15 . Cattistock, with the largest fall, had only an excess of 3.16 per cent. beyond the normal.

There was no record of 2 inches having been measured in 24 hours in any part of the county. The heaviest fall registered was 1.88 inch at Longthorns, Winterbourne Whitchurch, on 25 th July. At ten stations the rainfall did not amount to I inch on any one day during the year, but a fall of I inch, or over, is recorded on 23 different days during the year. The heaviest and most general fall occurred on the 29th July, upwards of an inch having been registered at 15 different places on that day.

The omission this year of the names of two observers must be noticed with much regret, namely, those of the Rev. G. H. Billington, at Chalbury Rectory, and Mr. Oliver Farrer, at East Stoke. The former had kept a record since 1865 , and his death removes a most careful and reliable observer, and breaks a long record-an event which is always to be greatly deplored. To make up for these and other losses, the names of eight new stations appear in the tables, but from two of them only partial
returns are given, the records not beginning on the ist of January.

The new stations are :-


A return from Whitelackington, near Ilminster (Lat. $50^{\circ} 56^{\prime}$, Lon. $2^{\circ} 52^{\prime}$ ), is added from the neighbouring county of Somerset.

In the following tables the alphabetical arrangement of the stations has been given up, and the places follow one another, as far as possible, according to their respective situations. Beginning at the extreme north of the county with Milton-onStour, a general sweep is taken in a south-easterly direction towards Verwood, then towards Purbeck in the S.E. corner of the county, thence along the coast to Lyme at its western extremity, then turning to the N.W. up to Sherborne, and ending with the central parts of Dorset. By this arrangement it will be more easy to compare the rainfall of different places with that of the immediate neighbourhood.

In conclusion, it is desired to draw the attention of observers to the necessity of an almost daily inspection of their gauges, otherwise small falls of rain are unnoticed and unrecorded. It may also be worth while to add that all entries should be made to the day previous to that on which the rain is collected. To insure uniformity in the work, it is very important that this should be done.

## Observers' Notes.

Sturminster Newton.-December 5th: Heavy hailstorm, accompanied by thunder, between 3 and 4 a.m.

Sturminster Marshall.-January 13th: Lightning during the evening and heazy thunderstorm, with hail, about midnight.

August irth: 0.92 fell between 9 and 10.45 a.m. No thunder heard. September 12 th : 0.48 fell between 9 and 10.45 a.m.
Bloxworth Rectory.-(i.) Almost complete absence of thunderstorms. The only ones noticeable were on July igth and 25 th, though lightning was seen at a distance on several other occasions. (ii.) The general coldness and ungeniality of the nights, even in the finest parts of the summer.

Wareham, Holme.-January 13th: Heavy thunder and hailstorm in the night. August 23 rd: Thunder showers. Greatest rainfall in 24 hours in the year $r \circ 07$ inch.

Worth Matravers.-January izth: Thunderstorm from 7 p.m. to midnight. February 2nd : Tidal wave damaged boats at Chapman's Pool. July 18th: Thunderstorm in evening. August 24th and 30th: Thunderstorms. November 21st: Thunder and hail with strong W. wind. December 7th : Heavy hailstorm 4.30 p.m. December 12th: Hail in night. Highest temperature in screen, $76^{\circ} 5$, July 17th; highest temperature in direct sun, $89^{\circ}$, July 8 th.
Weymouth, Nothe.-January 10th, 12th, 14th, and 29th: S.W. gales. 12th: Thunderstorm 4.45 p.m. February ist: Tidal wave; S.W. gales on ist, 8th, 9th, roth, irth, 13 th, and 14th. Barometer fell to 28.850 on February 16th. March 9th : Thunderstorm at 4 p.m. March 25 th : Snowstorm. April 5 th : West gale. May 8th: Slight snowstorm at 2 p.m. Thunderstorms June 6 th at 2 p.m. ; July 12th, 6 a.m. ; July 19th, 8 p.m. ; August 4th, 10.20 a.m. September 12th: S.E. gale. S.W. gales on October 5th and 16th, December 5th and 13th; W. gale December 30th. December 6th: Thunderstorm. Bright sunshine for the year, 1675 hr .36 min .; sunless days, 69 ; mean temperature of the year, $5^{\circ}$. 1 .
Wyke Regis.-Snow observed on the following days:February 14th and 16th, March 3rd and 24th. Thunder January 13th, July 19th (heavy), August 4th (heavy), 24th, 25 th, 29th, and 3 1st, September 6th, and December 5th.
Chickerell.-January inth: Heavy thunderstorm, lasting till an hour or more after midnight. Snow, slight, on

February 27th, 28th, 29th, March 1st, 2nd, 24th, and 25 th. 19th: Thunderstorm with very bright lightning, but never very near. August 4th: Thunderstorm in morning, lasting several hours. December 5th : Short thunderstorm, lightning very bright.

Beaminster (Fleet Street).- $1 \cdot 0^{\circ}$ of rain fell in 28 minutes on morning of September 14th (entered to 13 th). Barometer (corrected to sea-level) fell to 28.68 on February 9th. A cyclone, or tornado, of narrow breadth, accompanied by lightning, thunder, and hail, swept over a part of Beaminster in early morning of December 6th, doing considerable damage to roofs, ricks, and trees in its course. Snow fell on five occasions to a total depth of 0.45 melted rain. Average monthly maxima in shade-January, $44^{\circ .7}$; February, $44^{\circ} .7$; March, $4^{\circ}{ }^{\circ} 7$; April, $55^{\circ .8}$; May, $60^{\circ .} 8$; June, $66^{\circ .} 8$; July, $71^{\circ .} 6$; August, $68^{\circ} .4$; September, $62^{\circ} .7$; October, $56^{\circ} 9$; November, $48^{\circ} \cdot 5$; December, $47^{\circ}$. 1 .

Broadwindsor, Vicarage.-Snow observed February 15 th, 16th, 25 th, 26 th, March 2nd, 3rd, 4 th, 5 th, 25 th, May 8 th (slight), November 22nd. Thunderstorms July 19th, August 23 rd and 30th, and December 6th ; on the last date at 4 a.m., accompanied by hail. Cow killed by lightning on that day. Hailstones picked up size of walnuts, and windows facing west broken as by bullets.

Broadmindsor, Blackdown `House. - Thunderstorms observed May 1oth, slight, July 121 h , 19th, heavy, August 3rd, at night, and morning of 4th. Also thunder August 16th, 22nd, ${ }^{23}$ rd, and 30th. Tremendous hailstorm, with thunder and lightning, about 3 a.m., December 6th. Stones the size of walnuts; much glass broken.

Chedington.-September 14th: The heaviest fall of the year 1.15 (entered September 13 th), fell between 7 and 9 a.m. This fall appears to have been a local one, as scarcely any was registered in places a few miles distant. On December 6th we had between 3 and 4 a.m. a very heavy storm of thunder, lightning, and remarkably large hailstones.

Chetnole.-January 27th: A sudden and violent squall upset the rain gauge, and there was in all probability more than 0.40 , which was what remained in it. March 29th there was a very heavy hailstorm, with thunder and lightning, about I p.m., and on the 30th several hailstorms. On December 6th, about 3.30 a.m., there was a short sharp storm of thunder and lightning with hail, followed by wind and rain.

Winterbourne Steepleton.-The rainfall of the year has exceeded the average of the previous in years by 3.57 in . There was no long period of drought, 12 days being the longest period during which no fall was recorded. This occurred between 7 th and 2oth March.

Dorchester No. 2.-One-third of the total rainfall occurred in the first two months, which followed on a year with a total of 13 inches above the average.

Rousdon, Devon.-The year's rainfall was 3.58 inches above the average of the last 20 years. June was the driest month, with 0.99 , and July the wettest, with 5.84 inches. This was the largest record for any July since observations commenced here in 1883, and included the two wettest days of the year, July 23 rd, 1.22 inch, and July 29 th, 1 oi inch. There were 173 rainy days during the year, which is about the average number. The longest dry period was 19 days in March, during which only a slight shower, 0.03 inch, was recorded. In December rain was measured on 16 consecutive days. On January roth, about noon, 0.38 inch fell in a very short time. January 13 th, about $5^{\circ} 15$ p.m., a sudden squall of rain and hail passed over. Lightning was seen, and as the evening advanced it became more brilliant, and continued all night, with heavy thunder over the Channel. Lightning was also frequent on the nights of 14th and 15th. This is very unusual in January. On the 26 th rain commenced about 9 p.m., and continued till the same time next day, making 24 hours cortinuous downpour. On 30th, at 6 a.m., 0.40 inch fell in half-an-hour. February, 1904, was the wettest of the last 21 years. The morning of the ist was calm, fair, and frosty,
but a fresh S.E. gale came on in the evening with heavy rain and sleet. During the early morning hours of the 2nd a great tidal wave, causing much damage and alarm, swept along the south coast, and between 4 and 6.45 a.m. severe earthquake shocks were felt at Jersey. At this station the barograph showed no disturbance, and the registering anemometer only a very light wind movement. On May 23 rd rain, with fog, commenced about 4 p.m., and continued till the same time next day. Such a continuous downpour, accompanied by dense fog, is happily unusual. On July 19th, at 9 p.m., o.31 inch fell in half-an-hour, accompanied by brilliant lightning and thunder, and soon after noon on the 23 rd 0.75 inch fell in less than I hour. On the night of December 5 th lightning was frequent, and from 2 to 3 a.m. on the 6th a heavy thunderstorm, with vivid lightning, was passing over the Channel.

Ilminster, Whitelackington, Somerset.-January 14th: Vivid lightning and loud thunder. May soth: Very loud thunder and vivid lightning, about 0.50 inch from melted hail in 121 $\frac{1}{2}$ minutes. A thatched poultry-house was set on fire at Atherstone Farm by the lightning. Maximum thermometer in shade recorded on July 9th, $84^{\circ}$; 10th, $86^{\circ}$; 11th, $83^{\circ}$; 17 th, $84^{\circ}$; 18 th, $83^{\circ}$; and August 3 rd, $81^{\circ}$. Lightning and thunder on July 22nd and August 3rd, 23 rd, and 30th. On the evening of August 23 rd rain and hail, amounting to 2.00 inch, feli in about 2 hours.

The following cutting from the Daily Telegraph of December 8th, 1904, refers to the thunderstorm mentioned by several observers as having occurred in Beaminster and that neighbourhood on the 6th of that month :-

## A Dorsetshire Cyclone.

Tuesday morning the town of Beaminster, in Dorsetshire, was visited by a cyclone. Rain and hail descended in torrents, the
wind blew a gale, and the storm was accompanied by heavy thunder and vivid lightning. The path of the windstorm was perfectly defined, and extended over an area of about half-a-mile. At Southgate, the lower end of the town, a tree was torn up bodily, and many others were stripped of their branches. Slates and tiles flew through the air, and the timber of one roof was twisted by the fury of the cyclone. Crossing the road, the wind struck an engine-house, tearing away the roof and dropping it in a neighbouring orchard. The storm then made a sharp turn up the valley, doing great damage in the orchards and farmyards. A rick of hay had a huge hole torn in it. So well defined was the track of the storm that some parts of the town suffered no damage at all.
Table I.-Depth of Rain in Inches, 1904.

| Observer. | Station. |  |  |  | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Year. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L. B. Matthews. . | Milton-on-Stour |  |  |  | 3.78 | $4 \cdot 70$ | 1.53 | 1.45 | 3.24 | -81 | $2 \cdot 65$ | 4.33 | $2 \cdot 18$ | $2 \cdot 96$ | $2 \cdot 40$ | 3.36 | 33.39 |
|  | Gillingham |  |  | $\cdots$ | 3.78 | ${ }^{4} 770$ | 1.56 | $1 \cdot 39$ | 3.07 | '90 | $2 \cdot 18$ | $3 \cdot 87$ | $2 \cdot 49$ | $2 \cdot 45$ | $2 \cdot 08$ | $3 \cdot 32$ | 31.79 |
| Rev. W. H. H. D'Aeth. . | Buckhorn Weston |  |  |  | 3.08 | $3 \cdot 81$ | 1.14 | 1.04 | 2.71 | -71 | 3.09 | $9 \cdot 93$ | 1.58 | $2 \cdot 03$ | 1.36 | $2 \cdot 80$ | 26.28 |
| Kev. F. Khlvers.. | Shaftesbury |  |  |  | $3 \cdot 64$ | $4 \cdot 38$ | $2 \cdot 02$ | $1 \cdot 36$ | $3 \cdot 29$ | -75 | $2 \cdot 69$ | $3 \cdot 80$ | $2 \cdot 09$ | 3.01 | 1.87 | $3 \cdot 29$ | $32 \cdot 19$ |
| A. R. Hallett | Sturminster Newton |  |  |  | $4 \cdot 40$ | 5.07 | 1.60 | $1 \cdot 26$ | $2 \cdot 80$ | $\cdot 77$ | $2 \cdot 25$ | 3.00 | $2 \cdot 66$ | $2 \cdot 49$ | 1.62 | 3.49 | 31.41 |
| Vice-Admiral Stopford | Shroton House |  |  |  | 6.29 | $5 \cdot 59$ | 1.62 | $1 \cdot 31$ | $2 \cdot 66$ | -88 | $2 \cdot 68$ | 3.01 | $2 \cdot 53$ | $2 \cdot 35$ | $1 \cdot 35$ | $3 \cdot 27$ | $33 \cdot 54$ |
| Rev. L. A. Williams .. | Stoke Wake Rectory |  |  |  | $7 \cdot 14$ | 6.84 | $2 \cdot 08$ | $1 \cdot 42$ | 3.27 | $1 \cdot 18$ | $2 \cdot 77$ | $3 \cdot 48$ | 3.33 | $2 \cdot 33$ | 1.52 | $4 \cdot 20$ | $39 \cdot 56$ |
| Rev. H. H. T. Bassett | Winterbourne Hough |  |  |  | 6.42 | $5 \cdot 47$ | $1 \cdot 80$ | $1 \cdot 29$ | 2.88 | '92 | $2 \cdot 85$ | 3.71 | $2 \cdot 64$ | $2 \cdot 29$ | 1.46 | 4.06 | 35.72 |
| S. Smart . | ", Whitchu | ch, $L$ |  |  | 6.63 | $5 \cdot 32$ | $1 \cdot 86$ | $1 \cdot 29$ | $2 \cdot 87$ | $1 \cdot 24$ | $4 \cdot 21$ | 3.98 | $2 \cdot 62$ | 2.44 | $1 \cdot 73$ | 4.03 | $33 \cdot 22$ |
| Rev. G. Wellington | Horton Vicarage .. |  |  |  | $5 \cdot 18$ | $4 \cdot 56$ | 1.48 | $1 \cdot 24$ | $2 \cdot 66$ | . 92 | $2 \cdot 83$ | $4 \cdot 11$ | $2 \cdot 47$ | $2 \cdot 19$ | 1.93 | 3.71 | $33 \cdot 28$ |
| W. R. Fryer | Verwood Manor |  |  |  | $5 \cdot 10$ | $4 \cdot 39$ | 1.59 | $1 \cdot 26$ | 2.76 | $1 \cdot 00$ | $3 \cdot 11$ | $4 \cdot 75$ | $2 \cdot 29$ | $2 \cdot 25$ | $1 \cdot 14$ | $3 \cdot 46$ | $33 \cdot 10$ |
| Dr. G. H. Batterbury | Wimborne, Codford |  |  |  | $5 \cdot 96$ | $4 \cdot 53$ | $1 \cdot 73$ | $1 \cdot 28$ | 2.74 | ${ }^{-98}$ | $3 \cdot 66$ | $5 \cdot 10$ | $2 \cdot 59$ | $2 \cdot 16$ | 1.49 | 4.03 | 36.25 |
| F. A. Philbrick .. | , 'Hestfield |  | .. | . | $5 \cdot 80$ | $4 \cdot 59$ | 1.07 | 1.91 | $2 \cdot 73$ | 1.03 | $3 \cdot 76$ | $3 \cdot 85$ | 3.07 | $2 \cdot 90$ | 1.62 | $4 \cdot 31$ | 36.64 |
| Rev. J. Cross | Sturminster Marshall |  |  |  | $5 \cdot 48$ | $4^{\cdot} 71$ | 1.62 | $1 \cdot 24$ | $2 \cdot 67$ | 1.01 | $3 \cdot 26$ | $4 * 89$ | $2 \cdot 56$ | $2 \cdot 31$ | 1.53 | $3 \cdot 40$ | $34 \cdot 18$ |
| F. G. A. Lane . . . | Bloxworth House.. |  |  |  | 6.34 | $5 \cdot 14$ | 1.78 | $1 \cdot 26$ | 3.07 | 1.26 | 3.47 | $4 \cdot 40$ | $2 \cdot 48$ | $2 \cdot 39$ | 1.87 | 3.92 | 37.38 |
| Rev. O. P. Cambridge. . | ', Rectory |  |  |  | $5 \cdot 76$ | $4 \cdot 69$ | $1{ }^{\prime} 74$ | $1 \cdot 24$ | 3.06 | 1.04 | 3.40 | 4.59 | $2 \cdot 47$ | $2 \cdot 26$ | 1.84 | $3 \cdot 79$ | 35.88 |
| A. Lucas .. - | Bere Regis Vicarage |  |  |  | $5 \cdot 65$ | 4.58 | $1 \cdot 50$ | 1.01 | $2 \cdot 66$ | ${ }^{\cdot 96}$ | 3.66 | 3.51 | $2 \cdot 29$ | $2 \cdot 01$ | $1 \cdot 73$ | 3.50 | 33.06 |
| W. Symes.. | Parkstone, Poole Roo |  |  | - | $5 \cdot 41$ | $3 \cdot 96$ | 1•33 | $1 \cdot 21$ | 2.72 | . 87 | $2 \cdot 47$ | $3 \cdot 87$ | $2 \cdot 68$ | $2 \cdot 54$ | $1 \cdot 28$ | 3.72 | 32.06 |
| S. W. Bennett | Wareham .. .. |  |  | $\cdots$ | 5.95 | $4 \cdot 52$ | 1.35 | 1.19 | $3 \cdot 10$ | $1 \cdot 15$ | $2 \cdot 00$ | 4'20 | $2 \cdot 82$ | $2 \cdot 24$ | $1 \cdot 38$ | 3-28 | $33 \cdot 18$ |
| G. D. Bond | Holme |  |  | $\cdots$ | 5.91 | $4 \cdot 75$ | 1.58 | 1.09 | 3.29 | 1.11 | 1.90 | $4 \cdot 55$ | 2.66 | $2 \cdot 36$ | 1.44 | 3.56 | $34 \cdot 20$ |
| H. B. Vincent | Swanage, Victoria Ho |  | .. | . | $4 \cdot 61$ | $3 \cdot 40$ | 1.32 | $1 \cdot 20$ | $2 \cdot 95$ | -98 | $2 \cdot 17$ | $3 \cdot 71$ | $2 \cdot 58$ | $2 \cdot 76$ | 1.33 | $3 \cdot 65$ | $30 \cdot 66$ |
| Rev. C. S. Shepherd | Worth Matravers .. |  |  |  | $4 \cdot 59$ | 4.01 | 1.64 | 143 | 3.44 | $\cdot 92$ | $2 \cdot 74$ | 4.48 | 2.97 | $2 \cdot 97$ | 1.48 | $3 \cdot 33$ | 34.00 |
| Colonel Farrer | East Stoke, Binnegar |  |  |  | $6 \cdot 17$ | $4 \cdot 83$ | 1.55 | 1.19 | 3.01 | 1.31 | 2.07 | 4.48 | $2 \cdot 68$ | $2 \cdot 49$ | 1.46 | 3.55 | $34 \cdot 79$ |
| Rev. W. D. Filliter | Luiworth, Last Hall |  |  |  |  | 4.67 | 1.61 | 1.43 | $3 \cdot 35$ | 1.05 | $2 \cdot 81$ | $4 \cdot 78$ | $2 \cdot 80$ | ${ }^{2} \cdot 92$ | $1 \cdot 30$ | 3.67 |  |
| Rev. W. P. Schuster | W, West, Vica |  |  |  | $5 \cdot 16$ | $4 \cdot 31$ | 1.59 | -95 | $3 \cdot 12$ | -89 | $2 \cdot 82$ | $4 \cdot 48$ | $2 \cdot 23$ | $2 \cdot 79$ | $1 \cdot 75$ | 3.04 | $33 \cdot 13$ |
| I. J. Brown | Weymouth, Nothe |  |  |  | 4.03 | 4.06 | 1.07 | -90 | $2 \cdot 96$ | -86 | 2.63 | 3.30 | 1.58 | 1.95 | 1.96 | 3.00 | $28 \cdot 30$ |
| Mrs. Pretor | Wyke Regis, Belfield | couse | $\cdots$ |  | 4.05 | 4.63 | $1 \cdot 22$ | -98 | $3 \cdot 16$ | 1.00 | 2.78 | 3.69 | 1.77 | $2 \cdot 49$ | 1.88 | $3 \cdot 21$ | 30.86 |

Table I. (Continued).

| Observer. | Station. |  | Jan. | Feb. | Mar. | Apr. | May. | June. | July | Aug. | Sept. | Oct. | Nov. | Dec. | Year. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W. Batton | Portland, High Lighthouse |  | 3.97 | 4.00 | 1.23 | $\cdot 96$ | $2 \cdot 25$ | . 85 | $2 \cdot 89$ | 4.01 | $1 \cdot 29$ | $2 \cdot 60$ | 1.12 | $2 \cdot 77$ | 28.04 |
| Mrs. George | Fleet House |  | $4 \cdot 13$ | $4 \cdot 55$ | 1.35 | 1.04 | 3.04 | . 70 | 3.02 | $2 \cdot 92$ | $1 \cdot 82$ | $2 \cdot 44$ | 1.59 | 3.00 | $29 \cdot 60$ |
| Mrs. Richardson | Chickerell, Montevideo |  | 4.20 | $5 \cdot 09$ | 1.23 | -93 | $3 \cdot 12$ | .91 | $2 \cdot 80$ | $2 \cdot 72$ | $1 \cdot 66$ | $2 \cdot 38$ | 1.65 | 3.03 | 29.72 |
| R. Stevenson Henshaw | Upwey, Waterworks |  | $4 \cdot 21$ | $5 \cdot 02$ | 1.29 | $1 \cdot 10$ | 3.01 | 83 | $2 \cdot 89$ | $2 \cdot 85$ | 1.94 | $2 \cdot 50$ | 1.73 | 3.05 | $30 \cdot 42$ |
| J. C. P. White .. | Abbotsbury, New Barn |  | 4.00 | $5 \cdot 00$ | 1.35 | 1.04 | $2 \cdot 90$ | 1.05 | 3.18 | $3 \cdot 30$ | 1.90 | $2 \cdot 27$ | $1 \cdot 73$ | 3.08 | 30.80 |
| H. Gordon | Bridport, Coneygar |  | 5.06 | $5 \cdot 98$ | 1.61 | 1.34 | $3 \cdot 16$ | 1.08 | -4.38 | $4 \cdot 14$ | $2 \cdot 61$ | $2 \cdot 38$ | 2.00 | 3.87 | $37 \cdot 61$ |
| Dr. J. Spurr j .. | Lyme Regis, Colway Cottage |  | $4 \cdot 30$ | $4 \cdot 45$ | 1.85 | $1 \cdot 15$ | $3 \cdot 37$ | 1.09 | $5 \cdot 06$ | 4.70 | ${ }^{2 \cdot 77}$ | $2 \cdot 11$ | $1 \cdot 72$ | $3 \cdot 60$ | ${ }^{35 \cdot 67}$ |
| J. Andrews, jun. | Beaminster, Fleet Street |  | $5 \cdot 55$ | 5.31 | 1.94 | 1.37 | $2 \cdot 60$ | 1.34 | $4 \cdot 44$ | $3 \cdot 88$ | 3.34 | $2 \cdot 12$ | $1 \cdot 70$ | 8.79 | $37 \cdot 38$ |
| Rev. A. A. Leonard | , Vicarage. |  | $5 \cdot 54$ | $5 \cdot 26$ | 1.99 | $1 \cdot 46$ | $2 \cdot 67$ | $1 \cdot 29$ | 4.40 | $3 \cdot 94$ | 3.31 | $2 \cdot 11$ | 1.73 | 3.70 | $37 \cdot 40$ |
| C. E.M. Pinney.. .. | Broadwindsor, Blackdown House |  | 6.35 | 5.77 | 1.98 | $1 \cdot 56$ | $2 \cdot 89$ | 1.50 | $5 \cdot 32$ | $4 \cdot 66$ | $2 \cdot 74$ | $1 \cdot 96$ | $2 \cdot 12$ | 4.25 | 41.10 |
| Rev. G. C. Hutchings ... | Brad , Vicarage .. |  | 5.03 | $4 \cdot 92$ | 1.92 | $1 \cdot 45$ | $2 \cdot 94$ | 2.09 | ${ }^{4} 73$ | 4.03 | $2 \cdot 15$ | $1 \cdot 99$ | $1 \cdot 91$ | 3.67 | 36.83 |
| H. Birkinshaw .. .. | Chedington Court |  | ${ }_{5}^{5.65}$ | $5 \cdot 56$ | 1.99 | 1.40 | ${ }^{2} \cdot 19$ | 1.35 | 4.33 3.4 | 3.41 | $\stackrel{3}{3.08}$ | ${ }^{1} 67$ | $1 \cdot 43$ | 3.70 | ${ }_{38}^{35 \cdot 76}$ |
| R. Rintoul ${ }^{\text {a }}$ | Melbury Sampford | $\cdots$ | ${ }_{5}^{5.93}$ | ${ }^{5.71}$ | 1.84 | 181 | $2 \cdot 67$ | $1 \cdot 38$ | ${ }^{3.44}$ | ${ }^{3} 5.50$ | ${ }_{2}^{2.67}$ | 1.81 | $1 \cdot 32$ | 4.61 | ${ }^{36} \cdot 69$ |
| Col. E. F. Chadwick | Chetnole ${ }^{\text {a }}$. |  | $5 \cdot 74$ | ${ }_{5}^{6.18}$ | 2.25 | ${ }^{1}$ '58 | $2 \cdot 69$ | $1 \cdot 20$ | 3.27 | $3 \cdot 23$ | $2 \cdot 35$ | ${ }^{1} 73$ | 1.12 | ${ }^{4} \cdot 18$ | 35.52 |
| T. Turton .. | Sherborne Castle . |  | $4 \cdot 35$ | $5 \cdot 11$ | 1.68 | 1.37 | 3.01 | ${ }^{7} 7$ | 3.02 | 3.44 | 2.07 | 2.06 | 1.36 | 3.81 | 31.99 |
| G. Coffin . Wilmot-Sitwell | Holwell, Westrow | $\cdots$ | 5.16 6.92 | $5 \cdot 83$ 6.68 | $\xrightarrow{1.84}$ | 1.49 1.76 | $3 \cdot 12$ 2.85 | 1.07 1.47 | 2.92 | 3.64 5.01 | 2.87 | $2 \cdot 36$ $2 \cdot 39$ | 1.34 | 3.48 4.48 | $35 \cdot 12$ $43 \cdot 44$ |
| Rev. A. Lewis .. | Littlebredy Parsonage |  |  |  |  |  |  | $1 \cdot 31$ | $3 \cdot 85$ | 3.76 | $2 \cdot 71$ | $2 \cdot 94$ | $1 \cdot 84$ | $4 \cdot 14$ |  |
| H. Stilwell | Winterbourne Steepleton |  | 6.43 | 6.49 | 1.85 | 1.35 | $4 \cdot 47$ | $1 \cdot 31$ | $3 \cdot 87$ | $3 \cdot 82$ | 3.13 | $2 \cdot 77$ | $1 \cdot 80$ | $4 \cdot 20$ | $41 \cdot 49$ |
| R. B. White | ", Herringston |  | 6.40 | 5.89 | 1.50 | 1.01 | $3 \cdot 82$ | 1.08 | $3 \cdot 18$ | 4.01 | $3 \cdot 06$ | $2 \cdot 56$ | $1 \cdot 65$ | $3 \cdot 11$ | $37 \cdot 27$ |
| G. J. Hunt | Dorchester Waterworks |  | 6.10 | 6.01 | 1.57 | 1-26 | $3 \cdot 81$ | $1 \cdot 12$ | $3 \cdot 22$ | $3 \cdot 57$ | 2•90 | ${ }^{2} \cdot 68$ | 1.70 | 3.73 | 37.67 |
| Capt. J. E. Acland | Wollaston House |  | 6.74 | 6.10 | $1 \cdot 60$ | 1'23 | ${ }^{3-50}$ | $1 \cdot 00$ | ${ }^{3.02}$ | 3.45 | $\xrightarrow{3.40}$ | 2.56 | 1.5 | 3.68 | ${ }^{37 \cdot 86}$ |
| J. Powell.. . | Piddletown |  | 6.75 | 5.27 | 171 | $1 \cdot 27$ | 3.08 | $1 \cdot 23$ | 3.75 | $3 \cdot$ | 2 | 2'26 | 1.63 | 82 | $36 \cdot 97$ |
|  | Means of 48 Stations |  | $5 \cdot 309$ | $5 \cdot 035$ | $1 \cdot 633$ | 1.276 | $3 \cdot 001$ | 1.065 | 3.227 | $3 \cdot 856$ | $2 \cdot 532$ | $2 \cdot 357$ | 1.637 | 3.602 | $34 \cdot 530$ |

RAINFALL IN DORSET．
Table II．－Rainfall in 1904.

|  | $\cdot \operatorname{dra}$ X |  |
| :---: | :---: | :---: |
|  | ${ }^{\circ}$ əd |  |
|  | ${ }^{-{ }^{\text {on }} \mathrm{N}}$ |  |
|  | ＇๒0 |  |
|  | － d．as |  |
| 志 | －9nv |  |
|  |  |  |
| $\begin{aligned} & \text { ए. } \\ & \text { 를 } \end{aligned}$ | ＇ounf |  |
|  | －stu |  |
|  | $\cdot \mathrm{ddv}$ |  |
|  | $\cdot \mathrm{ArIN}$ |  |
|  |  |  |
|  | UEP |  |
|  |  |  |
|  | $\begin{aligned} & \text { viout } \\ & \text { do ‘u!t } \end{aligned}$ |  |
|  | ®ٌ |  <br>  <br>  |
|  |  |  |
|  | $\begin{aligned} & \text { تूं } \\ & \text { だ } \end{aligned}$ |  |
|  |  |  |

Table II．（continued）．

|  | $\cdot \operatorname{rez} \boldsymbol{\lambda}$ |  | 尔 |
| :---: | :---: | :---: | :---: |
|  | －ә¢ |  | 9 |
|  | ${ }^{\text {AO }} \mathrm{N}$ |  | $\bigcirc$ |
|  | ？ 70 |  | $\stackrel{\square}{\square}$ |
|  | －ıdes |  | $\#$ |
| 药 | － 8 n V |  | $\stackrel{ }{5}$ |
|  | － Smp |  | $\cdots$ |
|  | －amp |  | $\infty$ |
|  | － Se N |  | $\stackrel{\square}{\square}$ |
|  | $\cdot \mathrm{ddv}$ |  | $\stackrel{\sim}{\sim}$ |
|  | ＇RET |  | $\stackrel{\text {－1 }}{ }$ |
|  | ＇qว， |  | \％${ }^{\text {a }}$ |
|  | －uve |  | 81 |
|  | : Ruo и!то. |  | ： |
|  |  |  | ： |
|  | ぎए |  | ： |
|  | $\begin{aligned} & \text { जi } \\ & \text { む̀ } \\ & 0 \end{aligned}$ |  | ： |
|  |  |  <br>  | ¢ \％ \％ |
|  |  |  | ： |

Table III.-Statistics of the Temperature of the Air and of the Humidity and Amount of Cloud at Winterbourne Steepleton Manor at 9 A.m., kept by Mr. H. Stilwell.

| 1904. | Temperature of the Air. |  |  |  |  |  |  |  | $\begin{array}{r}0 \\ 0 \\ 0.1 \\ 0 \\ 0 \\ 0 \\ 0 \\ \hline\end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In Stevenson's Screen. |  |  |  |  | On Grass. |  |  |  |
|  | Average of |  |  | Extremes. |  | Average Lowest. | $\begin{aligned} & \text { 嵒 } \\ & \text { E } \\ & \text { B } \end{aligned}$ |  |  |
|  |  |  | ถั๊ |  |  |  |  |  |  |
|  | - | - | 0 |  |  |  |  |  |  |
| January | $45 \cdot 1$ | $34 \cdot 4$ | $40^{\circ} 0$ | $50 \cdot 9$ | 23.0 | 30.8 | 18.0 | 93 | 8.2 |
| February .. | $44^{\prime} 2$ | $34 \cdot 6$ | $39 \cdot 4$ | $49^{\circ} 7$ | 21.4 | 31.6 | 17.0 | 88 | $7{ }^{\circ} 2$ |
| March | $46 \cdot 8$ | $33 \cdot 6$ | 40.0 | $59^{\circ} 1$ | $25 \cdot 3$ | $31 \cdot 2$ | 21.9 | 83 | $7 \cdot 1$ |
| April | $55 \cdot 2$ | 40.2 | $47 \cdot 3$ | 64.0 | $32 \cdot 0$ | $37 \cdot 2$ | $28^{\circ} 0$ | 83 | 6.7 |
| May . . | 58.4 | 44.1 | $50 \cdot 8$ | 67.2 | 33.5 | 41.2 | 29.0 | 86 | $7 \cdot 1$ |
| June | $64 \cdot 1$ | $46 \cdot 8$ | $54 \cdot 8$ | $70^{\circ} 0$ | 36.9 | $43 \cdot 3$ | $32 \cdot 2$ | 78 | 6.2 |
| July .. . | 68.9 | $53 \cdot 8$ | $60 \cdot 8$ | $80 \cdot 8$ | $45^{\circ} 8$ | $49 \cdot 4$ | $38 \cdot 4$ | 83 | $6 \cdot 7$ |
| August . ${ }^{\text {a }}$ | 67.8 | 49.6 | $58^{\circ} 2$ | 77.8 | 39.4 | $44 \cdot 3$ | $33 \cdot 1$ | 84 | $7 \cdot 0$ |
| September.. | 63.4 | $44 \cdot 3$ | 53.4 | $69 \cdot 1$ | $32 \cdot 5$ | 38.5 | $28 \cdot 8$ | 84 | 5.9 |
| October .. | 56.9 | $43 \cdot 4$ | $49 \cdot 9$ | $65 \cdot 7$ | 317 | 39.4 | 25.8 | 91 | $7 \cdot 9$ |
| November . | $50 \cdot 2$ | 34.9 | $42 \cdot 6$ | $58 \cdot 3$ | 21.9 | 30.8 | 16.0 | 90 | $5 \cdot 9$ |
| December .. | $47 \cdot 4$ | $36 \cdot 9$ | $42 \cdot 4$ | 53.3 | $25^{\circ} 0$ | $34 \cdot 1$ | $20 \cdot 6$ | 94 | $8 \cdot 6$ |
| Year.. .. | 55.7 | 41.4 | $48 \cdot 3$ | 80.8 | 21.4 | $37 \cdot 6$ | 16.0 | 86.4 | $7 \times 0$ |

Note.-The mean daily temperature of the twelve years ending December, 1904, was $48^{\circ} 6$. The year 1898 had the highest mean-viz., $49^{\circ} \cdot 7$, and 1895 the lowest-viz., $47^{\circ} \mathrm{I}$.

## Qhuxch Eoods, Doxsef, 1552. (continued.)

146. The parishe of CORFF MOLEN.

Fyrst, one chalis of Sylver parcell gylt, one crosse of copper \& gylt, $j$ payre of vestmentes of crymson veluet, $j$ cope of crymsen veluet, j payre of vestmentes of whyt fustyon, iij Table clothes of whyt clothe, iij Table clothes of satten of brydges yellowe and grene, one surplice, \& j rocket, ij cruetes of Tyn, iiij Beiles in the Tower.

To thuse of the Churche.-Appoynted by the said commyssioners, j chalis of Syluer, one cope of crymsen veluet, wythe all the Table clothes \& surplices, The resydewe of all the premisses commyttyd to the custody of thes men vnder wrytten.
$\left.\begin{array}{ll}\begin{array}{l}\text { Sir Water Mathewe curat } \\ \text { Richard Leyston } \\ \text { Richard Wyllys }\end{array} & \text { Renold Frampton } \\ \text { William Wyllys }\end{array}\right\}$ Morrys Dyll

## 147. The parishe of EVERSUTE.

Fyrst, Too chalyces of Sylver parcell gylt, one pax of sylver parcell gylt, iiij parre of vestments, j blewe veluet, j Dornex with thole sute of sylke, thother payre of redd satten a brydges, iij copes, $\mathbf{j}$ crymsen veluet, j of blewe veluet, j of blewe Sarsenet, Too table clothes of blewe redd \& yellowe Satten of brydges, ij candlestickes \& j sencer of bras, j lyche bell, j payr of vestmentes of Dornex, iiij belles in the Tower.

To thuse of the Churche.-Appoyntyd by the said commyssioners, The least chalis, one cope of blewe veluet, wythe all the Table clothes, and surplices, The resydew of all the premmysses commyttyd to the custody of thes men Whose Names be vnder wrytten.
$\left.\left.\begin{array}{ll}\text { Sir Hugh Gyllat parson } \\ \text { Thomas Fysher } \\ \text { Richard Hensebury } \\ \text { Aly xander payne }\end{array}\right\} \begin{array}{l}\text { John powne } \\ \text { Richard Doue (?) } \\ \text { Homfrey bushell }\end{array}\right\}$

## 148. The parishe of FROME QUYNTAYNE.

Fyrst, one chalis Sylver parcell gylt, iij payre of vestmentes, $\mathbf{j}$ of purpul veluet one of grene Dornex sylke, thother of redd worsted Too copes $j$ of blacke veluet, thother crymsen Damaske, Too candelstickes of bras, j payre of sencers of bras, Too belles in the Tower.

To thuse of the Churche.-Appoyntyd by the saide commyssioners, j chalis of Sylver, j cope of crymsen Damaske, wythe all the Table clothes and Surplices, The resydewe of all the premysses commyttyd to the custody of thes men Whose Names be vnder wrytten.


Mem. $12 d$.

## 149. The parish of MELCOMBE HORSEY.

Fyrst, $\mathbf{j}$ chalis Syluer, iij payre of vestmentes, j cope of sylke, j cheseble, j frunt clothe of grene sylk, j cheseble of fustion, ij corporas with the cases, j pyx of Lattyn ij candelstickes of Lattyn j crosse of Lattyn, j payre of cruetes of tyn, vj alter clothes, j surplis, j sencer of bras, j lyche bell, j oyle box oi tyn, ij belles in the Tower.

To thuse of the Churche.-appoyntyd by the said commyssioners the chalis, j cope with all the table clothes \& surplices, The residewe of all the premisses comyttyd to the custody of thes men whose names be vnder wrytten $\sim$
$\left.\begin{array}{l}\text { Sir Renold Dowle parson } \\ \text { William Sprynge } \\ \text { Robert condyt }\end{array}\right\}$

## 150. The parishe of CLENSTON.

Fyrst, j chalis, j cope, j surples, ij Table clothes, j bell in the Tower ~

To thuse of the churche.-appoyntyd by the said commyssioners, j chalis, j cope, with the surplice \& Table clothes, the resydewe of all the premisses commyttyd to the custody of thes men vnder wryttyn o

Sir Roger gould parson Robert Jones ~

## Mem. 13.

## THE DENARY OF BYRPORTE.

## 151. The parishe of CHARDESTOK.

Fyrste, j. challes all gylt with a cover, .j. challes of sylver parcell gylt with a cover, .j. shipp of syluer parcell gylt, .j. sencer of syluer parcell gylt, Fower payre of vestmentes, .j. of redd branchede veluet, .j. of red chamlet, .j. of whỵt Damaske, .j. of blewe satten of brydges, Fower coppes, j of redd Dornex, sylke, j. of Dornex wrought vppon with yollowe sylke, .j of blewe Dornex, .j. of blacke woolstede, .j. pyde vestment of sylke, j clothe to hange before the Table of chyckerell saye, .j. vestment of redd \& grene satten of brydges, $j$. corporas case with a charchif, 'Too Table clothes, fyve paynted banners of buckram, Too candelstyckes of latten, iij olde surples, Fyve belles in the Tower, .j. lyttyll bell in the chancell, ij other lyttyll belles ~

To thuse of the churche.-Appoynted by the saide commyssioners, .j. challes all gylt ij copis, .j of Dornex with yelowe, .j. of woolstede, with all the Table clothes \& surples, The resydew of all the premisses to remeayne in the custody of these men here after Folowyng

Sir John Cryche vicar there John Coxton

William Estmunde
Water Clement

## 152. The parishe of STOCKLONDE.

Fyrste, j sence of Syluer, .j. shipp of Syluer, j. pax of Syluer parcell gylt, $j$ challes of Syluer parcell gylt, $j$ hole shute of vestmentes of purpull veluet, $j$ cope of redd veluet, $j$ vestment with Decon \& subdecon of redd \& grene Dornex, ij vestmentes of blewe satten of brydges, j vestment of blewe sarsenet, fower belles in the Tower, iiij candelstickes, Too of latten \& ij of Tyn ~

To thuse of the Churche.-Appoyntede by the saide commyssioners, one challes of Syluer, j cope of redde veluet, with all the Table clothes \& surples, The resydewe off all the premisses commyttyde to custody of thes men here vndre wrytten.

| Sir John Knyght curat there | William Webber |
| :--- | :--- |
| Harry bowet | William Carter |
| William Spyller | paule Towker |
| Thomas Hamlyne |  |

153. The Chapell of DALWOODE with in the parishe of STOCKLONDE.

Fyrst, j challes of Syluer parcell gylt, j pax parcel gylt, j pyx of Syluer parcell gylt, .j sence \& a shipp of Syluer, j cope of blewe veluet, \& vestmentes of the same, .j payre of vestmentes of whyt fustion, iij corporas cases, iij surples, fyve Table clothes, iij Lent clothes, ij Towelles, iiij great belles in the Tower, $j$ lyche bell, iij sacrynge belles, j . holy water pot of bras ij cruetes of tyn, ij candelstickes of bras.

To thuse of the churche.-Appoynted by the sayde commyssioners, .j. vestment of blewe veluet with all the Table clothes, \& surples, The resydewe of all the premisses are commyttyde to the custody of thes men here vndre wryten $\infty$

Harry Hanne
Richarde Whytmore

## Mem. 13. $d$.

154. The parishe of SOUTHE PERAT.

Fyrst, vj payre of vestmentes, $j$ of blewe veluet, $j$ of redde brydges satten, $j$ of tawnye sarsenet, $j$ of blacke saye, ij payre of Dornex, ij copes of Dornex, .j Table clothe of blewe \& redd veluet with flowers of gould \& sylke, iij corporas \& iiij charchefes ij payre of candelstickes \& a payre of sencers of latyn, .j, challes with the patent of syluer parcell gylt, iij belles in the Tower, .j. canapy of blewe \& redd satten of brydges, ij surples, iiij Table clothes, .j. cope of blewe veluet, j frunt clothe of grene veluet, iiij Towelles of Dyapper, .j payntede clothe of canvas, iij sacringe belles, ij crewetes, .j lent clothe, ij payre of vestmentes, .j whyt sylke, thother blewe sylke.
155. MOSTRON infra poch iam p̂đ.

Fyrst, iij payre of vestmentes, .j of brydges satten, thother of dornex,.$j$ challes with the partent of Syluer, ij copes,.$j$ redd satten, thother of Dornex, .j crewet of leade,.$j$ lyttell bell, ij candelstyckes, .j sencer of latten, iij banners paynted, .j crosse of latten j surples.

To thuse of the churche.-Appoyntede by the sayde commyssioners,.$j$ challes,.$j$ cope of Dornex, with all the Table clothes \& surples, The resydewe of all the premisses comyttyd to the custody of thes men vndre wrytten.
$\begin{array}{ll}\text { Sir Hughe farnañ parson there } & \text { John Gvppey } \\ \text { John Ode } & \text { Richard Irloner }\end{array}$
156. The parishe of MAPERTON.

Fyrst, .j challes of syluer parcell gylt with the pattent, ij payre of vestments, $j$ of redd satten of bridges, j of Taffytay, j cope of Dornex, ij candelstickes of bras, ij Table clothes of lynnyn, ij belles in the Tower.

To thuse of the churche.-Appoynted by the saide commyssioners, j challes, j vestment of redd satten of brydges with all the Table clothes $\&$ surples, The resydewe of all the premisses commyttede to the custody of these men vndre wrytten $\rightarrow$

> Robert Morgan gentleman parson there Symonde Gyll
> John Travys
157. The parishe of BYRTON \& SHIPTON.

Fyrst, fyve payre of vestmentes j of sylke Dornex j of grene satten of brydges, $j$ of redd satten of brydges, $j$ of Dornex, $j$ of blewe veluet, ij copes, j of crymsen veluet, j of whyt satten of brydges, iij Table clothes of lynnyn clothe, Too challes of Syluer parcell gylt ij candlestickes, .j. sencer of bras, iiij belles in the Tower, .j lyche bell.

To thuse of the churche.-Appoyntede by the saide commyssioners, j challes, j cope of satten of brydges, with all the Table clothes $\&$ surples, The resydewe of all the premisses comyttyde to the custody of these men vndre wrytten $\sim$

| Sir John Cotrell parson there | Roger Clerke |
| :--- | :--- |
| John Clerke | Richard Knyght |
| William Gregory | Harry spenser |

## 158. SHIPTON Capella de BYRTON.

Fyrst, j challes of Syluer parcell gylt, ij payre of vestmentes $\mathbf{j}$ of whyt chamllet, thother of blewe worsted, $j$ cope of blewe worstede, iij Table clothes of lynnyn, $j$ sencer, ij candelstickes of bras, Thre belles in the Towre $\sim$

To thuse of the churche.-Appoyntyde by the saide commyssioners, j challes, j cope of blewe worstede, with all the Table clothes, \& surples, The resydwe of all the premysses commyttyde to the custody of these men vndre Wrytten.

Sir John Cotrell
Rycharde Knyght
Harry Spenser

## Mem. 14.

## 159. The parishe of CHEDYOKE.

Fyrst, ij challes of Syluer one parcell gylt, thother Dowble gylt vij payre of vestmentes j of crymsen veluet, j of blewe Damaske, $j$ of blacke Damaske, $j$ of whyt satten of brydges, $j$ of redd satten of brydges, $j$ of blewe sarsenet, $j$ vestment of blewe veluet, $j$ cope of whyt Damaske, iij Table clothes of lynnyn clothe, $\mathbf{j}$ crosse of Syluer, $\mathbf{j}$ sencer of syluer, j pax of Syluer \& gylt, iiij candelstickes, \& a sence of bras, iiij belles in the Tower j lyche bell.

To thuse of the churche.-Appoynted by the saide commyssioners, j challes parcell gylt, j vestment of satten of brydges with all the Table clothes \& surples, The resydewe of all the premisses comyttede to the custodye of these men vndre Wrytten.

| Sir John Ludlowe vicar there | John Beare |
| :--- | :--- |
| William Kyche | William orcharde |
| John Williams | William Woodcocke |
| John Hynde, |  |

160. The parishe of WHYTCHURCHE.

Fyrst, j challes all gylt with the cover, fyve payre of vestmentes, j shute of Dornex sylke, j shute of blewe worstede, j vestmente of crymsen Dornex, $j$ vestment of murrey Damaske, $j$ vestment of whyt fustion, iij copes, j of redd Dornex, j of blewe saye, j of Dornex, ij candlestickes \& a sence of bras, j lyche bell, fyve belles in the Tower $\sim$

To thuse of the churche.-Appornted by the sayde commyssioners, j challes, j vestment of crymsen Dornex, with all the surple \& Table clothes, The resydwe of all the premysses comyttyde to the custody of these men vndre wrytten.

[^21]161. The parishe of LONGE BRYDDY \& LYTTELL BRYDDY.

Fyrst, iij challes syluer all gylt with covers, iij vestmentes, j of whyt Damaske, $j$ of changeable sersenet, $j$ of grene satten of brydges, j cope of blewe veluet, iij Table clothes, ij candelstickes \& a sencer of latten vj belles in the Tower, j Lyche bell, j surples.

To thuse of the churche Eo chappell.-Appoyntede by the saide commyssioners, ij challes, j vestment of grene satten of brydges, with all the Table clothes \& surples, The resydewe of all the premisses comyttede to the custody of these men vndre wrytten.

| Sir Roger Bonde parson there | John Gyllion |
| :--- | :--- |
| Thomas Byrde | John Marten |
| Robert Bartlet | Thomas Cake |
| Nycholas Bartlet |  |

## 162. The parishe of ASKERSWELL.

Fyrst j challes gylt with a cover, j olde cope, ij vestmentes, j of satten of brydges, $j$ of threde, $j$ vestment of whyt lynnyn clothe, j lent clothe olde, ij Table clothes, j surples vj candelstickes of bras, j banner of grene sylke, ij banners of payntede canvas, ij payntede clothes of canvas, iiij belles in the Tower, xlli. of olde Iron to the valewe of fower li olde bras to the valewe of Too brewynge Leades to the valewe j broche of Iron to the valewe

To thuse of the churche.-Appoyntede by the sayd commyssioners, j challes gylt, j vestment of satten of brydges, with all the surples \& Table clothes, The resydewe of all the premisses to the custody of these men vndre wrytten.

| Sir William Derby parson | Peter Mydway |
| :--- | :--- |
| Thomas Egerdon | John Gyll |
| Robert Derby senior | Christopher Darby | John Hardy

## Mem. 14. $d$.

## 163. The parishe of COSCOMBE.

Fyrst, iij challes of Syluer parcell gylt, fyve payre of vestmentes, j of crymsen veluet, j of grene satten of brydges, j of whyt sarsenet, ij of Dornex, ij copes, j of redd satten of brydges, thother of blewe taffytay, iij Table clothes, of lynnyn, ij candelstyckes of bras, iiij belles in The tower, j lytell bell $\infty$

To thuse of the churche.-Appoyntede by the saide commyssioners, The least challes, $j$ cope of satten of brydges, with all the Table clothes \& surplices, the resydewe of all the premisses comyttyde to the custody of these men vndre wrytten.

Sir John Gyll curat there John Hopkens William Barnes Robert Wooddyer Robert Heren

## 164. The Boroughe of BYRTPORT.

Fyrst, ij challices, j all gylt, thother parcell gylt, with ther covers, j crose of Syluer, j sence of syluer, j shipp of syluer, vj copes, $j$ of blewe veluet, $j$ of grene veluet,.$j$ of crymsen veluet, j of murry veluet, ij of whyt Damaske, with Decon \& subdecon, iij payre of vestmentes with decon \& subdecon of veluet accordinge to the copes before named, $j$ vestment of grene satten of brydges, ij candelstickes \& j sence of latten, j holy water pott of bras, iij belles in the Tower, j lyche bell.

To thuse of the churche.-Appoyntede by the sayd commyssioners, j chalyce parcell gilt, j cope of crymsen, veluet, with the Table clothes \& surplces, The resydewe of all the premisses to custody of these men vndre wrytten $\sim$

| Sir Richard Harrys parson there | Richard Tygyn |
| :--- | :--- |
| George Hyggens | William Davy |
| Cristopher bettyscombe | Richard Davy |
| John Alforde |  |

## 165. The parishe of PORTYSHAM.

Fyrst, j chalys gylt, ij cruetes of syluer, .j pax of syluer, j pyx of lattyn, ij candelstyckes of lattyn, $j$ crosse of lattyn, $j$ sencer of latten, iij vestmentes, j of whyt damaske \& red veluet, thother ij of redd damaske \& grene, iij copes, j of whyt taffytay, j of redd sylke, .j. of Dornex, ij paynted banner clothes, iiij Table clothes, ij surplices, iij belles in the Tower, iij corporas cases, ij carchifes to the same $\sim$

To thuse of the churche.-Appoyntede by the saide commyssioners, j challes of syluer, j cope of red sylke, with all the Table clothes \& surplices, The resydewe of all the premisses comyttyd to the custody of thes men vndre wrytten.
\(\left.\begin{array}{l}Sir Raffe Haserde vicar <br>
Walter samforde <br>

Richard Hardy\end{array}\right\}\)| Hugh Samwaies |
| :--- |
| Owen HeББes |

Thomas bartrme

## 166. CORTON.

Fyrst, j challes, j vestment of blewe veluet, j bell, j surples, ij Table clothes,

Sir Thomas Waters, curat, William Hobbes, Owen Hebbes, These thinges above writen comytted to ther charges $\sim$

## 167. The parishe of WEST COMPTON.

Fyrst, $\mathbf{j}$ challes of syluer parcell gylt, $\mathbf{j}$ vestment of blewe satten of brydges, $j$ cope of redd satten of brydges, $i j$ candelstyckes \& a sencer of bras, ij belles in the Tower, j surples, ij Table clothes.

To thuse of the churche.-Appoynted by the saide commyssioners, $j$ challes, $j$ vestment of redd satten of brydges with all the surplices \& Table clothes, The resydewe of all the premysses commyttyd to the custody of these men vndre wrytten $\sim$

$$
\begin{array}{ll}
\text { Sir John Samwaies parson there } & \text { Thomas Sargent } \\
\text { William Hardy } & \text { Jles churchell } \\
\text { Richard Garlande } &
\end{array}
$$

## Mem. 15.

## 168. The parishe of LODERS.

Fyrst, ij challices of syluer, one all gylt, thother parcell gylt, j shute of vestmentes of crymsen veluet, iiij payre of vestmentes, $j$ of whyt Damaske, $j$ of redd sarsenet, $j$ of redd satten of brydges, j of dornex, j cope of Dornex, iij Table clothes, ij candelstickes of bras, j sence of bras, fyve belles in the Tower, j lyche bell.

To thuse of the churche.-Appoyntede by the saide commyssioners, j challes parcel gylt, j cope, with all the Table clothes \& surplies, The resydewe of all the premisses comyttyd to the custody of these men vndre wrytten.

$$
\left.\left.\begin{array}{ll}
\text { Sir John Baker curat } \\
\text { John Hutys } & \begin{array}{l}
\text { Harry browne } \\
\text { John Marshe } \\
\text { John Larder }
\end{array}
\end{array}\right\} \begin{array}{l}
\text { Myles Warren } \\
\text { Nycholas Warren }
\end{array}\right\}
$$

## 169. BAWNTON parishe of LODERS.

Fyrst, j chales of Syluer parcell gylt, iij payre of vestmentes, j of crymsen veluet, $j$ of redde Satten of brydges, thother redde Sarsenet, ij copes, $j$ of grene dornex, thother of redd sarsenet, $j$ Table clothe of lynnyn, ij candelstickes of bras, $j$ sence of bras, j holy water stocke of bras, iij belles in the Tower $\sim$

To thuse of the churche.-Appoyntede by the sayde commyssioners, j challes of Syluer, j cope of Dornex, with the surples \& Table clothes, The resydew of all the premisses comyttyd to the custody of these vndre wrytten

$$
\left.\begin{array}{l}
\text { Sir John Baker curat } \\
\text { Robert Mone } \\
\text { John Clerke }
\end{array}\right\}
$$

## 170. The parishe of WALDYCHE.

Fyrst, j challes sylver parcell gylt, ij vestmentes, $j$ of whyt bustion, thother of Dornex, ij copes, j of Dornex, thother whyt Damaske, ij Table clothes of lynnyn clothe, ij candelstickes \& a sence of Latten, ij belles in the Tower, ij surplyces.

To thuse of the churche.-Appoyntyde by the saide commyssioners, j challes, j vestment of whyt bustion, with all the Table clothes \& surplices, The resydewe of all the premisses comyttyde to the custody of these men vndre writen
$\left.\begin{array}{l}\text { Sir Robert Blackwell curat } \\ \text { Stephen Hyde } \\ \text { Stephen Akerman } \\ \text { John Hallet }\end{array}\right\}$

## 171. The parishe of HOOKE.

Fyrst, j challes, ij vestmentes of veluet, iij belles in the Tower, ij candelstyckes of bras, j frunt for the Table of veluet, ij vestmentes of saye, $j$ holy water pott of bras, $j$ cope of sylke, $j$ surples, iiij Table clothes, j corporas of Damaske $\infty$

To thuse of the churche.-Appoyntyde by the saide commyssioners, j challes, j cope, with the surples, \& Table clothes, The resydewe of all the premisses comyttyde to the custody of these men vndre wrytten $\infty$
$\left.\begin{array}{l}\text { Sir John Style parson there } \\ \text { Homfrey Wyllyams }\end{array}\right\}$

## 172. The parishe of MAYDON NEWTON.

Fyrst, ij challices of syluer parcell gylt with ther covers, j pyx of syluer parcell gylt, j pax of syluer parcell gylt, fyve payre of vestmentes, $j$ of redd damaske, $j$ of Tawny Dornex, $j$ of purpull veluet, $j$ of whyt Damaske with decon \& subdecon of the same, j of blewe Dornex sylke iiij copes, $j$ of whyt Damaske, $i$ of Dornex blewe, j of whyt Dornex, j of branched sarsenet of orrenge culler, iij clothes to hange before the table, of oryant culler Dornex, j of whyt \& blewe sarsenet, j of grene \& yellowe lockram, iij Table clothes, ij Towelles, iij surplices, j sence $\& \mathrm{ij}$ candelstyckes of latten, j crosse of latten, ij crewetes of tyn, j lyche bell, ij lyttell belles, iiij in the Tower, j holy water pott of latten -

To thuse of the churche.-Appoyntyd by the saide commyssioners, j challes, j vestment of whyt Damaske, with all the surples \& Table clothes, The resydewe of all the premisses comyttyd to the custody of these men vndre wrytten
Sir Christopher Hadson curat
Christopher Hole

| John goode |
| :--- |
| Robert Myryfyld | | Robert Harrys |
| :--- |
| Richard Synge |

## 173. The parishe of CHEDYNGTON.

Fyrst $\mathbf{j}$ challes gylt with the pattent, iiij payre of vestmentes, j of purpull veluet, j of Dornex, j of blew sarsenet j of blacke worstede, $i j$ copes, $j$ of blewe veluet $j$ of blewe sarsenet, $i j$ candelstickes of bras, iij Table clothes \& other ij clothes, $\mathbf{j}$ surples, iij belles in the towere, xj other small belles, $j$ crosse of latyn j holy water pott $\sim$

To thuse of the churche.-Appoynted by the said commyssioners, j challes, j cope of blewe sarsenet with all the Table clothes \& surples, The resydewe of all the premysses comyttyd to the custody of these men vndre wrytten $\sim$

Sir Christopher Benston parson
John Guppy $\left\{\begin{array}{l}\text { John Hunt } \\ \text { Robert Hallet }\end{array}\right\}$
174. The parishe of NETHERBURY.

Fyrst, ij chalices of syluer parcell gylt, j pax of syluer parcell gylt, $j$ shute of vestmentes of blewe Damaske, $j$ shute of vestmentes of grene sylke Dornex, iiij payre of vestmentes, $j$ of syluer tynsell, $j$ of red damaske, $j$ of satten of brydges, $j$ of whyt chamlet, ij copes of gulde fygure, j Table clothe, of grene \& redd Damaske, ij candelstickes, \& a sence of latten, fyve belles in the Tower, j lyche bell $\sim$

To thuse of the churche.-Appoynted by the sayd comyssioners, the Least challes of syluer, $j$ cope of gould fygur with all the Table clothes \& surplices, The resydewe of all the premysses commyttyd to the custody of these men vndre Wrytten.

| Sir John Newman vicar there | Walter Hoyewelt |
| :--- | :--- |
| Nycholas Crabbe | Anthony Collens |
| Stephen Tacle | Robert Crabbe |

Mem. 15. $d$.
175. The parishe of BEMYNSTER.

Fyrst, ij challices, j all gylt thother parcell gylt, vj payre of vestementes, $j$ of rosset veluet, $j$ of blewe veluet, $j$ of whyt satten of brydges, j of blacke say, j of blacke sarsenet, j of Dornex, with Decon \& subdecon of crymsen veluet, ij copes, j of Tynsell, $j$ of whyt satten of brydges, iij Table clothes of lynnyn, $j$ candelstick of bras, $i j$ surplices, $j$ bell in the Tower.

To thuse of the churche.-Appoynted by the saide comyssioners, the worst challes, j cope of whyt satten of brydges, with all the Table clothes \& surplices, The resydewe of all the premisses, to the custody of these men vndre wrytten
$\left.\begin{array}{l}\begin{array}{l}\text { Sir John Newman vicar there } \\ \text { James Danyell } \\ \text { John Hyllary }\end{array}\left\{\begin{array}{l}\text { Robert Turner } \\ \text { Thomas rodburd } \\ \text { William Hoskens } \\ \text { John Mason }\end{array}\right\}\end{array}\right\}$

## 176. The parishe of $A B B O T Y S B U R Y$.

Fyrst, j challys all gylt with the pattent of Syluer, j pax of Syluer parcell gylt, j cope of redd sylke j vestment of redd sylke, $j$ redd cope of veluet, $j$ vestment of grene satten of brydges, $j$ vestment of blacke worsted, $j$ vestment of whyt sylke, $j$ other of red sylke ij surplices vj Table clothes, iiij Towelles, iij corporas with their cases, ij frunt clothes of canvas paynted, ij curtens of grene sylke, j crosse of copper gylt, j pyx of latten, j sencer of latten, j payre of candelstickes of latten, fyve belles in the Tower.

To lhuse of the churche.-Appoynted by the said commyssioners, j challes, ij copes one of redd sylke thother of veluet with all the surplices \& Table clothes, The resydewe of all the premisses commyttyd to the custody of these men vndre Wrytten.

Sir John Thomson vicar there Jeffrey Samwaies
Hughe peson John Rodden
Henry curties
Nicholas Watercombe

## 177. The parishe of WYNTERBORNE ABBAS.

Fyrst, j challes of Syluer parcell gylt, iij vestmentes, j of crymsen veluet, j of blewe satten, j of blewe sarsenet, j cope of crymsen Damaske, iij Table clothes of lynnyn cloth, j corporas case \& j carchif, ij Towelles .j. of Dyapper, thother canvas, ij candelstickes \& a sencer of bras, j surples, iij belles in the Tower, j lyche bell.
To thuse of the churche.-Appoyntyd by the said commyssioners, $\mathbf{j}$ challes, j cope of crymsen Damaske, with all the Table clothes \& surplices, The resydewe of all the premisses comytted to the custody of thes men vndre wrytten.

Sir Harry Samwaies parson,
Robert Whytell
Nycholas Adams
Richard bettyscombe

John Balson
$\left\{\begin{array}{l}\text { William collyer } \\ \text { John carpenter }\end{array}\right\}$

## 178. The parishe of HALSTOCKE.

Fyrst, ij chalices of Syluer, V belles in the Tower, j crosse of latten, ij candelstyckes of Latten, ij cruetes of tyn, j sencer of latten, j cope of blewe veluet, j other cope j vestment of whyt satten, iij olde vestmentes, Vj Table clothes, j corporas, iij clothes, j surplyce.
To thuse of the churche.-Appoynted by the said commyssioners, the worst challes, j vestment of whyt satten, with all the Table clothes \& surples, The resydewe of all the premisses commytyd to the custody of thes men vndre wrytten

> Robert Nele \}Roger Sylly William Sylly $\left.\}_{\text {Roger barge }}\right\}$

## 179. The parishe of ABBOTYSTOKE.

Fyrst, $\mathbf{j}$ challes of syluer parcell gylt, iij payre of vestmentes, $\mathbf{j}$ of redd Damaske, j other of dyuers cullers, j of whyt fustion, ij copes, one of sylke Dornex, thother russet sylke, iij Table clothes, ij candelstyckes \& j payre of sencers of latten, iij bells in the Tower, j lyttell bell.

To thuse of the churche.-Appoynted by the saide commyssioners, j challes, j cope of sylke Dornex, with all the Table clothes \& surples, The resydew of all the premisses comytted to the custody of thes men vndre Wrytten $\sim$
$\left.\begin{array}{ll}\text { Sir John roby curat } & \text { William Shet } \\ \text { Thomas goge } & \text { William Smyth } \\ \text { John Dalyber } & \text { William Pavy } \\ & \text { Robert Hyllary }\end{array}\right\}, ~=~$

## 180. The parishe of SYMYSBOROUGHE.

Fyrst, j chalyce of syluer parcell gylt, j pyx of Syluer parcell gylt, one cope of grene sylke, one vestyment of blewe veluet, the decon of the same, $j$ cheseble of redd veluet, one Table clothe of grene and whyt satten of brydges, Too candelstickes \& a sence of bras, one holy water pott of bras, Fower belles in the Tower.

To thuse of the churche.-Appoynted by the sayde commyssioners, one chalyce of Syluer parcell gylt, one cope of grene sylke, wythe all The Table clothes and surplyces, The resydewe of all the premysses are comyttyde to the custody and charge of these men whose names be vndre wrytten.
> $\left.\left.\begin{array}{ll}\text { Sir John Collens curat } & \begin{array}{l}\text { Androwe Holcombe } \\ \text { John baron } \\ \text { John Jeffrey }\end{array}\end{array}\right\} \begin{array}{l}\text { John Collant } \\ \text { John Croker }\end{array}\right\}$

## 181. The parish of PUNCKNOLL.

Fyrst, ij challes, j all gylt thother parcel gylt, j whyt vestment of sylke, ij blewe vestementes of satten of brydges, $j$ cope of whyt sylke, iij Table clothes of lynnyn, j surplyce, iij belles in the Tower j pyx of Syluer ~

To thuse of the churche.-Appoynted by the said commyssioners, j challyce parcell gylt, j vestment of blewe satten of brydges, wythe all the surplyces, \& Table clothes, The resydewe of all the premysses are commytted to the custody \& charge of these men whose names be vndre wrytten.
$\left.\left.\begin{array}{l}\begin{array}{l}\text { Sir Robert Eyere parson } \\ \text { Robert byshoppe } \\ \text { William Ewens }\end{array}\end{array}\right\} \begin{array}{l}\text { John Hall } \\ \text { John Locke } \\ \text { James Napper } \\ \text { Robert Crybbe }\end{array}\right\}$

Mem. 16.
182. The parishe of SWYERE.

Fyrst, j chalyce of Syluer gylt with a broken pattent, iij payre of vestmentes, j of redd sylke, j of blewe sylke, j of threde, ij copes, j of redd sylke, thother blewe, iij Table clothes, ij corporas cases, j surples, j Towell, j napkin, j longe bord clothe, j crosse of bras, j canapie shete, iij belles in the Tower, j olde canapie ij old candelstickes.
To thuse of the churche.-Appoynted by the said commyssioners, j challes of syluer, j cope of blewe sylke, with all the Table clothes \& surplices, the resydewe of all the premisses comyttyd to the custody \& charge of these men whose names be vndre Wrytten
$\left.\left.\begin{array}{l}\text { Thomas Attyna } \\ \text { John Blackwoode }\end{array}\right\} \begin{array}{l}\text { Robert Rallyns }\end{array}\right\}$

## 183. The parishe of CATYSTOCKE.

Fyrst, j challes of Syluer parcell gylt, iij vestmentes, j of crymson taffatye, j of sylke Dornex, j of Dornex, ij copes, j of blewe satten of brydges, thother of blewe Dornex, ij corporas cases with their carchifes, ij Table clothes of lynnyn ij candellstickes of bras, j payre of sencers of bras iij belles in the Tower, j lyche bell.

To thuse of the churche.-Appoyntyde by the saide commyssioners, j chalice, j cope of Dornex, with all the 'Table clothes, \& surplices, The resydewe of all the premysses are commyttyd to the custody \& charge of thes men whose names be vndre Wrytten ~

| Sir John Maskall parson |  |
| :---: | :---: |
| John pyllarde | Alyxander Dyke |
| Thomas Forse | John Harrys |

## 184. The parishe of TOLLER PORCORUM.

Fyrst, j challyce of Syluer parcell gylt, fyve payre of vestmentes ij of them branched Sarsenet, $\mathbf{j}$ of redd say, $\mathbf{j}$ of whyt fustyon, j of grene satten of brydges, ij coppes, j of purpull veluet, j of Dornex, ij surplices, iij Table clothes, j corporas \& ij carchyffes, ij candelstickes of bras, ij Towelles, ij cruetes of tyn, j lyche bell iij sacrynge belles iiij belles in the Tower, iij banners of payntyd clothes, j crosse of Lattyn.

To thuse of the churche.-Appoyntyde by the sayde commyssioners, j challes of syluer, j cope of Dornex, with all the Table clothes, \& surplices, The resydewe of all the premisses to the custody \& charge of thes men Whose names be vndre Wrytten.

Sir Davyd barry vicar
$\left.\left.\begin{array}{l}\text { Thomas Buckler } \\ \text { Richard bylke } \\ \text { Robert Symon }\end{array}\right\} \begin{array}{l}\text { William younge } \\ \text { Renold Cole }\end{array}\right\}$

## 185. The parishe of LYME REGIS.

Fyrst, $\mathbf{j}$ challyce Syluer \& gylt, j crosse of woode coveryd with syluer, viij vestmentes, $j$ of clothe of gould, $j$ of blewe veluet, $j$ of blacke satten, $j$ of blacke worsted, $j$ of whyt Damaske, with Decon \& subdecon to the same, $j$ of blewe satten of brydges, j of blewe veluet with Decon \& subdecon to the same, j of redde satten of brydges, fyve copes, $j$ of whyt Damaske, ij of whyt taffytaye, ij of blewe veluet, iiij Table clothes, iiij Towelles, iij corporas cases with ij carchyffes, j crosse of copper, j banner of sylke, j of payntyd clothe, iij surplyces, ij clothes to hange before the Table, of canvas payntyd Too belles in the Tower, ij candelstickes of Latten.

To thuse of the churche.-Appoyntyd by the said commyssioners, j chalyce, j cope of blewe veluet, with all the Table clothes \& surplyces The resydewe of all the premisses comyttyd to the custody \& charge of these men Whose names be vndre wrytten.

| Sir Robert palf John Morrys |  |
| :---: | :---: |
| Richard Norrys | Roger Garlond |

## 186. The parishe of CHARMOUTHE.

Fyrst $\mathbf{j}$ chalyce of Syluer parcell gylt, ij payre of vestmentes, $\mathbf{j}$ of whyt satten of brydges thother of grene satten of brydges, $j$ cope of Dornex, ij Table clothes of lynnyn, ij candelstyckes \& A sence of Latten, $\mathbf{j}$ crosse of Latten, iij belles in the Tower j lyche bell.

To thuse of the churche.-Appoyntyd by the said commyssioners, j challes, j cope of Dornex, with all the table clothes \& surplices The resydewe of all the premisses to the custody \& charge of thes men whose names be vndre written

> Sir William Sankey parson
John Lymbery
John balston $\left\{\begin{array}{l}\text { Thomas best } \\ \text { William Lymbery } \\ \text { John James }\end{array}\right\}$

## 187. The parishe of CHYLFROME.

Fyrst, j chalice of syluer parcell gylt, ij vestmentes j grene Dornex sylke, thother satten of brydges, j cope of red sarsenet, ij Table clothes of lynnyn clothe, ij candelstickes of bras, ij belles in the Tower, j Table clothe of sylke, j holy water pot of bras, $\mathfrak{j}$ vestment of blew satten brydges.

To thuse of the churche.-Appoyntyd by the said commyssioners, $\mathbf{j}$ chalyce j vestment satten brydges with one Table clothe, The resydew of all the premysses to the custody and charge of these men whose names be vnder wrytten

## Sir William Hyllary parson

Thomas payre
)William Stephens

## 188. The parishe of MYLTON.

Fyrst, j chalyce parcell gylt, j vestment of blewe satten of brydges ij candylstickes of bras, j Table clothe of lynnyn iij belles in the Tower.

To thuse of the churche.-Appoyntyd by the sayd commyssioners j chalyce of Syluer parcell gylt, one vestment of blewe satten of brydges, with all the Table clothes, \& surplyces The resydewe of all the premysses ar comyttyd to the custody \& charge of these men whose names be vndre Wrytten $\sim$
Sir John Harryson curat
Thomas Conwaye $\quad$ John Symes

Mem. 16. $d$.
189. The parishe of PORESTOCKE.

Fyrst, ij chalyces of Syluer parcell gylt, V payre vestmentes, $\mathbf{j}$ of satten of brydes j of Sylke Dornex ij of Dornex, j of redd

Damaske j cope of redd Damaske, ij Table clothes of lynnyn, ij candelstickes of bbras j payre of sencers of bras, V belles in the Tower j lytell bell.

To thuse of the churche.-Appoyntyd by the said commyssioners, The warst chalyce, j cope of redd Damaske with all the Table clothes \& surpliees The resydewe of all the premysses are comyttyd to the custody \& charge of thes whose names be vndre wrytten

| Sir John Harryson curat |  |
| :---: | :---: |
| William Turner | Harry Turner |
| Robert More | William Stephens |
| Nycholas Travys | Robert prynce |

190. The parishe of HAUKECHURCHE.

Fyrst, j challyce of Syluer parcell gylt, j pax of Syluer parcell gylt, j pyx of Syluer, V vestmentes with thar albes, j of blacke veluet, j of grene satten, of brydges, with decon \& subdecon, j of tawny taffytay, ij vestmentes of Dornex iij copes, j of grene satten of brydges, $j$ or redd satten of brydges, $j$ of blewe worsted, ij Table clothes, of lynnyn, iiij candelstickes \& a sence of bras, j holy water pott of bras, iiij belles in the Tower, j lyche bell.

To thuse of the churche.-Appoyntyd by the said commyssioners, j chalyce, j cope of redd satten of brydges, with all the Table clothes \& surplices, The resydewe of all the premisses, commyttyd to the custody \& charge of these men whose names be vndre wrytten $\sim$

Sir John purches parson $\left.\begin{array}{l|l}\begin{array}{l}\text { John penny } \\ \text { Thomas Samson }\end{array} & \begin{array}{l}\text { Thomas Balston } \\ \text { John phyppayn }\end{array} \\ \left.\begin{array}{l}\text { William beamont }\end{array}\right\}\end{array}\right\}$

## 191. The parishe of WAMBROKE.

Fyrst, j chalyce of syluer parcell gylt, ij copes $j$ of redd veluet thother of fustion $V$ vestmentes, $j$ of redd veluet, $j$ of blew sylke, j of grene j of saye, thother ij of Dornex, j banner of sylke, iiij of clothe paynted, ij crosses, $j$ of latten thother ot plated latyn, ij candelstyckes of latten, j sencer of latten, iiij Table clothes, iiij belles in the Tower, j lych bell, ij sacringe belles, ij cruetes of tyn.

To thuse of the churche.-Appoyntyd by the said commyssioners, j chalyce of syluer, j cope of fustion, with all the Table clothes \& surplices, The resydewe of all the premisses commytted to the custody \& charge of these men whose names be vnder wrytten.

John pears
Robert crandon

## 192. The parishe of ALLYNGTON.

Fyrst, j challyee of syluer parcell gylt, iij payre of vestementes, j of blewe sarsenet, $j$ of blewe satten of brydges, $j$ of Whyt chamlet, ij copes, $j$ of blewe satten of brydges, thother of Dornex, ij candelstickes \& a sence of bras, ij belles in the Tower, j lyttell bell, j crosse \& a pax of latten, ij corporas cases, with their carchiffes, j holy water pott of bras, ij Table clothes, ij Towelles ij Surplices.

To thuse of the churche.-Appoynted by the saide commyssioners, j chalyce, j cope of blewe satten, with all the Table clothes \& surplices, The resydewe of all the premisses commyttede to the charge \& custody of these men whose names be vnder wrytten.

| Sir Richard Fort cur | Harry Egerdon |
| :---: | :---: |
| Robert pytfold | William Waye |
| Richard halker | John Conwey |

## 193. The parishe of LANGTON HERRYNGE.

Fyrst, iiij vestmentes, j of blewe veluet, j of redd satten of brydges, j blewe satten of brydges, j of redd russelles worsted, iij copes, j of blewe veluet thother ij sylke, j grene, thother murry wrought with sylke, j pyx of Syluer ij surplyces, Vj Table clothes, ij candelstickes of Latten, j sencer of latten, ij belles, j holy water pott of tyn, j lyche bell, j sance bell, ij sacringe belles.

To thuse of the churche.-Appoyntyd by the said commyssioners, j cope of murry sylke, with all the Table clothes \& surplices, The resydewe of all the premisses to the custody of thes men vnder writen

| Sir Stephen Hor |  |
| :---: | :---: |
| Robert carpenter | William Abram |
| John Gele [?] | John Smart |

## 194. The parishe of BRODWYNZOR.

Fyrst, ij chalices of syluer thone parcell gylt, ij cruetes of syluer, j pycture of syluer, Vij payre of vestmentes $\mathbf{j}$. of grene cullyred veluet, ij of whyt satten of brydges, j of grene Dornex, j of blew satten of brydges, j of blacke fustion, j of purpull sarsenet, ij copes, j of crane cullored veluet, j of sylke Dornex, ij table clothes, ij candelstickes \& a sence of bras, j crosse of bras, j holy water pot of bras, iiij belles in the tower, j lyche bell, j surplyce.

To thuse of the churche.-Appoyntyd by the said commyssioners, the worst chales, j cope of dornex, with all the table clothes \& surples, The resydewe of all the the premisses comyttyd to the custody of thes men vnder wrytten
$\left.\left.\begin{array}{l}\text { Sir John Roche curat } \\ \text { John Mantell senior } \\ \text { John Adame } \\ \text { John Mantell Junior }\end{array}\right\} \begin{array}{l}\text { Nyolas Herchen } \\ \text { Hughe Hyde } \\ \text { John Traske }\end{array}\right\}$

Mem. 17.

## 195. The parishe of BURSTOCKE.

Fyrst, j challice of Syluer parcell gylt, iiij vestmentes, j of blewe satten, j of blacke satten, j of whyt fustion, j of Turkye sattyn, ij copes, j of blewe satten j of grene satten of brydges, iij Table clothes of lynnyn, ij candelstickes \& a sencer of bras, j crosse of latten, iij belles in the Tower, xij Small cheme belles

To thuse of the churche.-Appoyntyd by the saide commyssioners, j chalice of Syluer, j cope of grene satten of brydges, with all the Table clothes \& surplyces, The resydewe of all the premysses commyttyd to the custody of thes men vndre wrytten.
$\left.\left.\begin{array}{l}\begin{array}{l}\text { Sir John Hyggen vicar } \\ \text { Robert bagge } \\ \text { John Howchens }\end{array}\end{array}\right\} \begin{array}{l}\text { Thomas Hyckes }\end{array}\right\}$

## 196. The parishe of WYNTERBORNE STEPLETON.

Fyrst, j chalice of syluer parcell gylt, j pyx of latten, iij vestmentes with thar albes ij of satten of brydges, thother fustion, ij copes, j of blewe damaske, thother of brydgs satten, Vij Table clothes, ij Towelles iiij frunt clothes for the Table, j of sylke ij of clothe bottken, thother of canvas, iij banner clothes of lynnyn clothe stayned j sepurker clothe steyned, j clothe for the rowde stayned, ij surplyces, ij crosses of latten vppon Tymber, j sencer of latten, j canapy over the pyx, j lyttell bell, ij cruetes of tyn, j payre of candelstickes of latten, ij corporas cases of sylke, iij belles in the Tower, j lyche bell, j other bell called a sance bell.
To thuse of the churche.-Appoynted by the said commyssioners, j chalice, j cope of brydges satten, with all the surplices
\& Table clothes, The resydewe of all the premysses commyttyd to the custody of these men whose names be vnder wrytten.
$\left.\left.\begin{array}{l}\begin{array}{l}\text { Sir Robert Blundon curat } \\ \text { John Meche senior } \\ \text { Richard Hodder }\end{array}\end{array}\right\} \begin{array}{l}\text { Richard Lawrence } \\ \text { Raff cake } \\ \text { John Meche Junior } \\ \text { Richard Myche }\end{array}\right\}$

## 197. The parishe of B尺APPAUL.

Fyrst, j chalice of syluer parcell gylt, iij vestmentes, j of whyt satten of brydges, j redd Sarsenet, thother of Dornex, ij copes of Dornex, ij candelstickes \& j sence of lattyn, ij Table clothes of lynnyn, ij chessebelles of sylke, iiij belles in the Tower \& $j$ lyche bell

To thuse of the Churche.-Appoynted by the said comyssioners, j chalice, j cope of Dornex, with all the Table clothes $\&$ surplices, The resydewe of all the premisses comyttyd to thes men whose names be vnder writen

Sir Robert Charde vicar Robert Waddon John Hollerde John Derke

William Weye
$\left.\begin{array}{l}\text { Richard Luter } \\ \text { Nycholas Hallet }\end{array}\right\}$

## 198. The parishe of RAWNASHAM.

Fyrst, j chalyce of syluer all gylt, V vestmentes, j of crymsen veluet, j of purpull veluet j of crymsen taffytaye, j of blacke saye, j of Dornex, ij copes, j of crymsen veluet thother of blacke sylke, iij Table clothes, ij surplices, j crosse of Syluer parcell gylt j shipp of Syluer, ij candelstickes of Syluer, j sence of Syluer, j lyche bell, ij candelstyckes of latten, fyve belles in the Tower.

To the vse of the churche.-Appayntyde by the sayde commyssioners, j chalyce, j cope of blacke sylke, with the Table clothes \& surplices, The resydewe of all the premisses comyttyd to the custody of thes men vnder writen
$\left.\left.\begin{array}{ll}\text { Sir Thomas burges parson } \\ \text { John Warren }\end{array}\right\} \begin{array}{l}\text { William Cobthorne } \\ \text { John Keyneye }\end{array}\right\}$
199. The parishe of WOTTON PHYTZ PAYNE.

Fyrst, $\mathbf{j}$ chalyce with the cover parcell gylt, ij payre of vestmentes, $\mathbf{j}$ of blew satten of brydges, $\mathbf{j}$ of redd Damaske, $\mathbf{j}$ cope of Dornex, ij candelstickes \& A sence of brass, ij Table clothes, j lyche bell, iij belles in the Tower.

To thuse of the churche.-Appoyntyd by the said commyssioners, $\mathbf{j}$ chalice, $\mathbf{j}$ cope of Dornex, with all ye Table clothes \& surplices The resydewe of all the premysses comyttyd to these men under Wrytten.
$\left.\begin{array}{l}\left.\begin{array}{l}\text { Sir John Serle parson } \\ \text { William Locke } \\ \text { William Crosse }\end{array}\right\} \text { Wohn russell } \\ \text { William Dare }\end{array}\right\}$

## 200. The parishe of CHELBOROUGH.

Fyrst, j chalice of syluer parcell gylt, iij vestmentes, j of blewe satten of brydges, j of grene Dornex thother of grene saye, $\mathbf{j}$ cope of redd satten of brydges, ij Table clothes of lynnyn, ij candelstickes, \& a sencer of bras, $\mathbf{j}$ surplice, ij belles in the Tower.

To thuse of the churche.-Appoynted by the said commyssioners, $\mathbf{j}$ chalyce of syluer parcell gylt, j vestment of grene Dornex, with all the Table clothes, \& surplyces, The resydewe of all the premysses comyttyd to the custody \& charge of these men vnder wryttyn

$$
\left.\left.\begin{array}{l}
\text { Sir Roger grenewaye parson } \\
\text { Harry Drake } \\
\text { Harry Drawe }
\end{array}\right\} \begin{array}{l}
\text { Sansome Abbot } \\
\text { George baker }
\end{array}\right\}
$$

Mem. 17.d.
201. The parishe of TOLLERFORDE.

Fyrst, $\mathbf{j}$ challes of Syluer parcell gylt with the pattent, $\mathbf{j}$ vestment of whyt Damaske, $j$ of redd Damaske, ij candelstickes, and \& A sencer of bras, $\mathbf{j}$ Table clothe, j cruet of leade, j cope of redd Damaske, ij belles in the Towre.

To thuse of the churche.-Appoynted by the said commyssioners, j chalyce of syluer, 1 vestment, with all the Table clothes and surplices, The resydewe of all the premysses to the custody of thes men vnder wrytten
$\left.\begin{array}{ll}\begin{array}{l}\text { Sir James Bayly parson } \\ \text { Richard Hyll }\end{array} & \begin{array}{l}\text { Robert Dawe } \\ \text { William Skymer } \\ \text { John Dawe Senior }\end{array} \\ \text { John Dawe Junior }\end{array}\right\}$
202. The parishe of WRAXOLE.

Fyrst, $\mathbf{j}$ chalyce parcell gylt, $\mathbf{j}$ cope of whyt Damaske, $i j$ vestmentes, $\mathbf{j}$ of whyt Damaske thother of blewe satten of brydges, ij candelstickes of lattyn, j surples, ij Table clothes, ij belles in the Tower, j lyche bell.

To thuse of the churche.-Appoyntyde by the saide commyssioners, $\mathbf{j}$ chalice, j cope, with all the Table clothes \& surplices The resydewe of all the premisses comytted to the custody of thes men vnder writen
$\left.\begin{array}{l}\left.\text { Sir Thomas Burges parson } \left\lvert\, \begin{array}{l}\text { William Tyser } \\ \text { Symon mody }\end{array}\right.\right\} \text { Richard Whorrow }\end{array}\right\}$
203. The parishe of BETTYSCOMBE.

Fyrst, $\mathbf{j}$ chalyce of syluer parcell gylt, iiij vestmentes, j blewe satten, j of whyt satten brydges, j of grene satten of brydges, j of Dornex, ij Table clothes, ij candelstickes and A sence of bras, j crosse of latten, ij Surplices, iij belles in the Tower.

To thuse of the churche.-Appoyntyd by the said commyssioners, $\mathbf{j}$ challes, $\mathbf{j}$ cope of Dornex, with all the Table clothes \& surplices, The resydewe of all the premisses comyttyde to the custody, of thes men vnder writen

| Sir John Come parson |  |
| :---: | :---: |
| John Dammat | Robert osborne |
| Humfrey paule | Robert rawe |

## 204. The parishe of LYTTON.

Fyrst, $\mathbf{j}$ chalyce parcell gylt, $\mathbf{j}$ cope of whyt Damaske, $\mathbf{j}$ vestment whyt Damaske, iij albes, ij Towelles, ij Table clothes, j surplice, j lyttell bell, ij cruetes of tyn j pyx of copper, j crosse of latten, iiij belles in the Tower.

To thuse of the churche.-Appoynted by the saide comyssioners, $\mathbf{j}$ chalice, $\mathbf{j}$ cope of whyt Damaske, with all the Table clothes \& surplices, The resydewe of all the premisses, comyttyd to the custody of thes men whose names be vnder wrytten $\sim$

Sir Willam Bullynge curat John Morton Jppolat bartlet John fawkener
$\left\{\begin{array}{l}\text { Edmonde prowt } \\ \text { William prowt } \\ \text { John pypwyne }\end{array}\right\}$
205. The parishe of CHYLCOMBE.

Fyrst, of challes Syluer [sic] parcell gylt, ij vestmentes, j redd sylke, thother whyt sylke, ij surplyces, ij candelstickes of bras, j crosse copper, iij Table clothes, j cope red veluet, j bell in the Tower

To thuse of the churche.-Appoyntyd by the said commyssioners, $\mathfrak{j}$ chalys, j vestment red sylke, with all the Table clothes, \& surplices The resydewe of all the premisses comyttyd to the custody of thes men vnder wrytten

Sir William Curry curat ther
Thomas Jesoppe
206. The parishe of PYLSDON.

Fyrst, $\mathbf{j}$ chalys syluer parcell gylt, $\mathbf{j}$ cope of blewe Dornex, iiij payre of vestmentes, $\mathbf{j}$ redd Damaske, j blewe taffytay, $\mathbf{j}$. blewe satten, $\mathbf{j}$ dornex, ij Table clothes of lynnyn j crosse $\&$ sencer of latten, ij candelstyckes of bras, ij belles in the Tower.

To thuse of the churche.-Appoyntyd by the said commyssioners, j chalyce, j vestment of red Damaske with all the Table clothes \& surples, The resydewe of all the premisses comyttyd to these men vnder writen

| Sir John Cooke curat William Jenkins |  |
| :---: | :---: |
|  | John Demet |
| Richard Smythe | William baker |

## 207. The parishe of PORE TOWNE.

Fyrst, $\mathbf{j}$ chalyce syluer with the pattent parcell gylt, j vestment grene sylke, ij Table clothes, $\mathbf{j}$ corporas of blacke veluet, Too belles in the Tower.

To thuse of the churche.-Appoynted by the sayd commyssioners, j chalice, j vestment of grene sylke, with all the Table clothes, \& surplices, The resydewe of all the premisses comyttyde to the custody of these men vnder Wrytten.

| Sir William Baker parson |
| :--- | :--- |
| Edward fowrde |\(\left\{\begin{array}{l}Thomas Stone <br>

Robert Dowche\end{array}\right\}\)

Mem. 18.

## THE DENRY OF SHASTON'.

208. The paryshe of BELLCHALLWELL.

Firste one challice of Silver, iij Belles in the Towre, One payre of vestmentes of white Saten of Briges, $j$ olde payre of vestmentes of Durnex $j$ Cope of vnwateryd chamlet, j Syrples, ij Aulter clothes, j Crosse and ij candelstickes of Latyn.

To thuse of the churche there.-Appoyncted by the saide commissioners, The saide chalis, the cope, The Syrples, And the table clothes, The reste commytted to the charge of suche as here after followethe,

Sir Thomas vyall parson
$\left.\begin{array}{l}\text { William Jolyffe } \\ \text { Roberte Godwyne }\end{array}\right\}$ churchewardens.
Thomas Hayne
John Tollervey

## 209. The paryshe of OSBORNE.

Fyrst ij Belles, One Challice of Syluer, ij Candelstickes of Brasse, $\mathbf{j}$ olde Cope of Durnex.

To thuse of the Churche there.-Appoyncted by the saide Commyssioners, The saide Chalice of Siluer, A Cope of Durnex The resydue comytted to the charge of suche as hereafter followethe,

Sir John Dunster vicar
$\left.\begin{array}{l}\text { Robte Dowle } \\ \text { Walter Appleby }\end{array}\right\}$ churche- Thomas Dowle $\quad$ wardens Thomas Rychemond $\}$ parysheoners
210. the paryshe of MELBURY OSMONDE.
firste one chalice, V payre of vestmentes, ij copes, ij payre of candelstickes, $\mathbf{j}$ Censer of Brasse, $\mathbf{j}$ Sirples, iiij Aulter clothes, A Border of Silke, iiij Banners, $\mathbf{j}$ Crewet of Leade, ij crosses of Laten, iiij Belles iij Towels, $\mathbf{j}$ Trendall of yron, ij corporas casies.

To the churche vse there--Appoyncted By the saide comyssioners, The saide Chalice, one Cope, all the table clothes and Sirplies, The residue comytted to the charge of those vnder wryten
\(\left.\begin{array}{ll}Sir Richarde Adams parson \& Giles Austyn <br>
John Sherston <br>

Roberte Cowper\end{array}\right\}\) church- $\left.\begin{array}{l}\text { Henrye Wallys }\end{array}\right\}$ pardens Roberte Bigges | Roners |
| :--- |

## 211. The parishe of STOURE PARVYS.

firste ij Chalices, one all gilte, and thother parcell gilte, One litell paxe of Siluer and gilte ij candelstickes of Latyn, one pixe of Brasse Vj Sacrynge bells, a Sencer of Brasse, iiij Belles in the Tower, ij crosses of Brasse, one holye water pott of Brasse, one vestment of red velvet one cope of the same, one vestment of Briges Satten, one Cope of the same, one vestment of blewe Satten of Briges, one cope of the same, iiij vestmentes, one of grene Satten of Briges, one of red saye one of Durnex silke, one of white Tweke, one table clothe of red and yelowe Satten of Briges, viij table clothes, one of red Saye, and the reste of Lynnen, iiij Curtens, ij of grene Sarcenet, and ij of grene and red Saye, one Stremer of Sarsenet, ij olde Banners, one lyttell pillowe of satten of Briges iiij corporas, one of velvet, one of checked Silke, ij of grene Satten of Briges, ij Syrples.

To the use of the churche there.-Appoyncted by the saide comyssioners One challice parcell gilte one cope of red velvet one vestment of Satten of Briges and A Cope to the same, i.j Syrples, iiij lynnen table clothes, The resydue to the custodie of the parson churchewardens \& parissheoners abouenamed.

## 212. The paryshe of SYLTON.

Firste One chalice of Syluer parcell gilte, one Sencers [sic] of Latyn, one Crosse of Copper, ij greate Candelstickes of Brasse, ij smalle Candelstickes of Brasse. one Candelsticke of brasse branched, one payre of vestmentes of red velvet, one payre of vestmentes of Red sylke, one payre of vestmentes of blewe Satten of Bridges One Cope of blewe Satten of Briges, one payre of vestmentes of red Russell, one Cope of Silke, one

Syrples, V aulter clothes, iij clothes to hange before the aulter ij payre of Curteyns, one aulter clothe of red sylke, iij Banuers and A stremer iij corporas with ij casies, iij Belles in the Towre.

To the churche vse there.-Appoyncted by the saide commyssioners, One Challice the blewe cope of Briges Satten, with the table clothes, and Syrples The reste commytted to the charges of those vnderwryten

Sir John forward parson $\left.\begin{array}{l}\text { William Butte } \\ \text { Richarde parsons }\end{array}\right\} \begin{array}{c}\text { churche- Thomas Hopkyns } \\ \text { wardens }\end{array}$ Stephane Moger $\}$ parisheoners.

## 213. The parishe of STOKE GAYLARD.

firste. One chalice parcell gilte, ij vestmentes, thone of Canvas, and thother of blacke Saye with A red crosse, ij Copes, thone blewe satten of Briges, and thother Red saye, ij Belles in the Towre, one Syrples, ij table clothes, and ij Towelles of Lynnen

> Sir John Colcell parson
> Thomas Daye churchwarden.

To the wse of the churche there.-Appoyncted by the commrssioners, One chalice, ij copes thone blewe Satten of Briges and thother of red Saye, ij table clothes of Lynnen, one Syrples, The resydue to the custodye of the parson and churchewarden abouenamyd
214. The parishe of WOOTTON NOR.
fyrste One chalice of Syluer, iij belles, A crosse of Laten, ij candelstyckes of brasse ij payre of vestmentes, thone blewe Silke, thother grene Satten of Briges, iiij aulter clothes, one Syrples, a corporas, and ij clothes, A cope of grene, Satten of briges

To thuse of the churche there.-Appoyncted by the saide commyssioners, one chalice, A cope of Briges Saten with all the table clothes, and Syrples, The resydue of the premysses are comytted to the custodye of those vnder wryten
$\left.\left.\begin{array}{ll}\begin{array}{l}\text { Sir John Dunster curate, }\end{array} & \text { William Oldyshe } \\ \text { Richarde Wryte } \\ \text { Thomas Manfilde }\end{array}\right\} \begin{array}{c}\text { churche- }\end{array} \begin{array}{l}\text { William grenynge } \\ \text { wardens } \\ \text { Henry Arber } \\ \text { John Hoode }\end{array}\right\}$ paryssheoners

Mem. 18. $d$.

## 215. The parishe of OVER COMPTON.

firste One Chalice of Syluer, one crosse of Laten, iiij Belles, one corporas case, ij aulter clothes, ij olde copes, iiij payre of vestementes ij cardelstickes of Laten, one Syrples.

To the churche vse there.-Appoyncted by the saide commyssioners, one chalice, a cope of grene with all the Table clothes \& Syrples, The reste comytted to the charge of these vnder wryten
$\left.\begin{array}{ll}\begin{array}{l}\text { Sir Roberte frye parson } \\ \text { Raynolde Hane |churche- }\end{array} & \text { Cutberte Amers } \\ \text { Thomas Gill }\end{array}\right\}$ wardens $\left.\begin{array}{ll}\text { Thomas Mychell }\end{array}\right\}$ parisheoners
216. The paryshe of FAWKE alias ALVESTON.
firste One Chalice of Syluer, iij Belles, vj payre of vestmentes, one red Silke, another whyte Silke, another blewe, and ij other of Crane coloure silke, and the sixthe of grene threade, iij Copes one of Crymson velvet Another of grene Satten, And another of grene Durnex iiij aulter clothes A fronte for the aulter of Silke, iij paxes of Laten ij Candelstickes of Brasse, one Sencer of Brasse, A crosse of Brasse, A corporas case, and iij clothes.

To the churche wse there.-Appoyncted, One chalice, a Cope of grene Satten, with all the aulter clothes and Syrples, The
resydue of the premysses are commytted to the custodie of those vader wryten

> Henrye fuller churchewarden Edwarde Hull James Lacey John Ladwyn parissheoners.

## 217. The parishe of HAYDON.

firste one challice parcell gilte, ij copes, thone of Dornex, thother of blewe satten iij vestmentes, one grene velvet, Another of Durnex, \& Another of white fustyan, ij Syrplies, ij candelstickes of brasse, ij Crewettes of Tynne, ij Banners, thone grene, thother Red, one paxe of coper, iij belles in the Towre, ij Lyche belles, ij Albes, iij table clothes.

To the churche vse there.-Appoyncted by the saide commyssioners, the saide chalice, one Cope of Dornex ij Syrples and iij table clothes, The resydue to the custodie and charge of those vnder wryten
$\begin{array}{ll}\text { Sir John Warwell vicar } & \text { John Golvesnye } \\ \text { Roberte Stalbridge } & \text { churche- } \\ \text { William Cuffe } \\ \text { Thomas Togood } & \text { wardens } \\ \text { Raynolde Hickes }\end{array}$ parisheoners

## 218. The paryshe of THORNEFORD.

firste One chalice of Siluer, iij payre of vestmentes, one cope of tawnye Durnex, iij corporas clothes, iiij Aulter clothes, ij Towelles, iij Belles in the Towre, one crosse of Latyn, ij candelstickes of Latyn.

To thuse of the churche there.-Appoyncted by the saide Commyssioners, the said Chalice, the tawnye cope with all the table clothes and Syrples, The resydue commytted to the charge of those vnder wryten,
$\left.\begin{array}{l}\left.\begin{array}{l}\text { Sir John Russell parson } \\ \text { William Elys } \\ \text { Thomas Kinge }\end{array}\right\} \begin{array}{l}\text { Roberte Stryde } \\ \text { wardens } \\ \text { warden }\end{array} \\ \begin{array}{l}\text { John Dybsdall } \\ \text { Richard Crybbe } \\ \text { John Olver }\end{array}\end{array}\right\}$ paryssheoners

## 219. The parishe of NETHER COMPTON.

First one chalis of Syluer ij peyre of vestmentes of Sylke j cope of grene iij corporas clothes iiij alter clothes iij belles in the tower

To the churche vse.-Appoynted by the said commyssyoners the said chalis and the grene cope with all the table clothes and surplecis The residewe comytted to the charge of them vnder wryten
$\left.\begin{array}{ll}\text { Pancras Gront parson } & \text { Nycholas Maunfyld } \\ \text { Robert Hodgis } \\ \text { Thomas pytman }\end{array}\right\} \quad$ Nycholas coll

## 220. The parishe of BERHACKET.

First one chalice of syluer one paire of vestmentes of whyt satten one Cope of Red saten of brigis one surples iij alter clothes ij corporas clothes with cases thone of Red veluet thother of whyt saten iij belles one candelstycke of laten.

To the churche vse.-Apoynted by the said commyssyoners the chalis, and the Cope with all the alter clothes and surplesis the rest comytted to the charge of them vnder wryten
$\left.\left.\begin{array}{ll}\text { Henry Smythe parson } \\ \text { Wylliam Doll } \\ \text { Thomas Lamcent }\end{array}\right\} \begin{array}{l}\text { John Churchhowse } \\ \text { Hughe panter }\end{array}\right\}$
221. The parishe of STURMISTER NEWTON.

First iij chalices of syluer, a pyx of syluer ij cruetes of syluer iiij belles ij paire of candelstykes one of brase thother of Tynne ij holywater pottes of brase, j vestment of Red veluet one Grene suyt of Damask, a suyt of blacke Damaske a suyt of whyt vestmentes a vestment of whyt chamlet ij pere of vestmentes very old vij alter clothes iij towelles ij banners of Sylke ij other of Clothe ij surpleces one oyle boxe of Syluer one payre of censers [sic] vestmentes of Syluer

To the churche vse.-Apoynted by the said comyssyoners the worst chalis one Cope of blewe veluet with all the table clothes and surplecys The rest comytted to the charge of them vnder wryten
$\left.\left.\begin{array}{l}\text { Lawrence bentame curat } \quad \text { Thomas Yong } \\ \text { Richard Chemocke } \\ \text { Robert Ford }\end{array}\right\} \begin{array}{l}\text { churche- William Yngrame } \\ \text { wardens Matthewe Gyllet }\end{array}\right\}$ parisheoners

## 222. The parishe of CAUNDELL MARSHE.

First one chalis of syluer iij payre of vestmentes iiij alter clothes ij cruetes of led j censer of bras ij table clothes of canvas ij candelstyckes of bras ij corporas clothes j corporas j surples one alter clothe to hang before the alter j banner of Sylke.

To the churche vse.-Apoynted by the said commyssioners the chalis and one whyt Cope with all the table clothes and surpleses The rest comytted to the charge of them vnder wryten
$\left.\begin{array}{ll}\text { Thomas Hull parson } & \text { John Hull } \\ \text { William burt } & \text { churche- } \\ \text { Harry burt } \\ \text { Thomas Curtyes }\end{array}\right\}$ wardens $\left.\begin{array}{ll}\text { John burt }\end{array}\right\}$ parisheoners

Mem. 19.

## 223. The parishe of LYLLINGTON.

First j chalis of syluer ij corporas cases with iiij clothes viij alter clothes vj peyre of vestmentes ij of Red sylke a nother whyt sylk \& red, a nother of crane colord sylke and a nother of grene sylk, ij towelles ij brasen candelstyckes a censer of brase ij cruetes of tynne one crose of Coper parcell gylt one paxe of Copper parcell gilt ij surpleses ij copes, one of blewe veluet thother of gren sylk iiij belles

To the churche vse.-Apoynted by the said comyssiooners, one chalis of syluer one cope of gryne sylk with all the table clothes and surpleces, the rest comytted to the charg of them vnder wryten

> William Chapell churchwarden
> William Keylwaye John Chapell
> Thoms master

## 224. The parishe of STOWER EST OUER.

First j peyre of vestments of whyt saten embroderid, j peyre of old vestments of red saten embroderid ij copes of saten one whyt another greyne j chalis of syluer parcell gilt ij alter clothes of Lynen j crose of Latyn j peyre of candelstyckes of Laten j censar of Laten j front to the alter of yelowe saye j banner of gryne sylk j paxe of laten iij belles in the tower

To the churche vse.-Apoynted by the said comyssioners, the chalis and the grene Cope with all the table clothes and surpleses, the rest comytted to the charge of them vnder wryten
$\left.\begin{array}{ll}\text { William Stanley curat } & \left.\begin{array}{l}\text { Richard Cave } \\ \text { William Weyt } \\ \text { Thomas Chaper } \\ \text { peter bulleyne }\end{array}\right\} \text { churche- } \\ \text { Richard Craspyn }\end{array}\right\}$ parisheoners

## 225. The parishe of LONG BURTON.

First j chalis of syluer j cope of Red saten of briges ij peyre of vestmentes thone red sylk thother grene iiij alter clothes iiij belles a crose of brase ij candelstyches of brase j surples

To the churche use.-Apoynted by the said comyssyoners the chalis and the cope of Red saten of briges with all the table clothes and surpleses, the rest comytted to the charg of them vnder wryten
$\left.\begin{array}{ll}\text { Walter Hayes vicar } & \text { Edmond Downton } \\ \text { Thomas Rowde churche- } & \text { Rise Tytchet } \\ \text { warden } & \text { Robert pytman }\end{array}\right\}$ parisheoners
226. The parishe of HOLNESS.

First j chalis of syluer a cope of blewe saten ij peyre of vestmentes thone of whyt saten of briges thother of Red iij belles, ij surpleses ij alter clothes ij towelles ij candelstyckes of brase

To the churche vse.-Apoynted by the said comyssioners the chalis with the cope of blewe saten, and all the table clothes and surpleces, the rest comytted to the charg of them vnder wryten

Walter Hays vicar<br>Walter Vyncent , churche- Robert Corme<br>Thomas Corme $\}$ wardens Walter Corme $\}$<br>parisheoners

## 227. The parishe of GYLLINGHAM.

First j crose of syluer parcell gylt j sencer of syluer j shippe of syluer j paxe of syluer ij cruetes of syluer ij chalecis of Syluer \& gylt $j$ cope of Red veluet one whyt cope of sylke $j$ of black saye j of Red, j of grene j suyt of Red veluet j purple a nother suyt of whyte j blewe j blacke, j newe vestment of whyt j blewe vestment of Damask $j$ vestment of whyt $j$ old cheseble $i j$ clothes of dyaper for the table ij clothes of holond for the table ij clothes that dyd hang before the vont ij towelles for the lavetory ij surplecis ij Rochetes $i j$ peyre of organes iij Lynen clothes $j$ crose of brase $j$ censar of brase iiij candelstyckes of brase a paxe of brase $j$ holy water pot of brase iiij banners of sarcenet ij streymers ij curtyns iij cushines iij corporas $\mathbf{j}$ oyle vate of Tynne V great belles $\mathbf{j}$ lytele bell

To the churche vse.-Apoynted by the said comyssioners the chalis the cope of Crymeson veluet with all the table clothes and surpleses, the rest comytted to the charg of them vnder wryten
$\left.\begin{array}{ll}\text { Thomas Hankines curat } & \begin{array}{l}\text { Nycholas Rykes } \\ \text { John Mathewe } \\ \text { churche- }\end{array} \\ \text { Thomas Aishe Garret } \\ \text { Thomardens } & \text { John Stone } \\ & \text { Walter Henbury }\end{array}\right\}$ parisheoners
228. The parishe of BATCOMBE.

First iiij belles ij peire of vestmentes of saten $j$ cope of gryne Dornex ij surpleses j corporas clothe vj alter clothes iij towelles $j$ peyre of candelstyckes of brase $j$ crose of laten

The the churche vse.-Apoynted by the said comyssioners the cope with all the table clothes and surpleses The rest comytted to the charge of them vnder wryten

> William Slade parson $\left.\begin{array}{ll}\text { Henry Kent } \\ \text { Henry Myntorne }\end{array}\right\}$ churchewardens $\begin{aligned} & \text { John Wyffyne } \\ & \text { John Myntorne }\end{aligned}$

## 229. The parishe of FVNTNELLE.

First j cope ij peyre of vestmentes one of blewe fustyane thother of Red sylk j chalis of syluer j paxe of syluer j front clothe of saten of brigis ij surplecis iiij belles in the tower $j$ crose of brase ij candelstyckes of brase j peyre of censers of brase iij table Clothes of Lynen ij towelles of Lynen ij front clothes of partye sylke

To the churche vse.-Apoynted by the said comyssioners the chalis and the Cope with all the table clothes and surpleces the rest comytted to the charg of them vnder wryten
$\left.\begin{array}{ll}\text { William Rydowt vicar } & \text { Harry Hastoll } \\ \text { Thomas Cryne }\}_{\text {churche- }} & \left.\begin{array}{l}\text { John barter } \\ \text { Harry Skynner }\end{array}\right\} \text { wardens } \\ \text { John Swetnam } \\ & \text { John Davye }\end{array}\right\}$ parisheoners

## 230. The parishe of COMPTON ABBAS.

First ij chalices one gilt thother vngilt j pixe of siluer j paxe of coper $j$ censer of brase iiij vestmentes $j$ of veluet $j$ of Sylke $j$ of saten of brigis $j$ cope of saten of brigis vj alter clothes of whyt Lynen ij towelles of Lynen iij belles

To the churche vse.-Apoynted by the said comyssyoners one chalis j cope of saten of briges with all the table clothes and surplesis the rest comytted to the charge of them vnder wryten
> $\left.\left.\begin{array}{ll}\text { Christoper Rigley parson } & \text { Richard Come } \\ \text { William Sevyer } \\ \text { Harry Cryne }\end{array}\right\} \begin{array}{l}\text { churche- } \\ \text { Johardens } \\ \text { wade }\end{array} \begin{array}{l}\text { Edward Williams }\end{array}\right\}$ parisheoners John brokman

Mem. 19. $d$.

## 231. The parishe of YETMINSTER.

First $v$ belles in the tower $j$ suyt of vestmentes with a cope of blewe veluet $j$ suyt of vestmentes of black wosted, with a cope $j$ payre of vestmentes of whyt saten, one paire of vestmentes of Red wosted j paire of blewe chamlet j peyre of blewe sylke, j paire of blewe wosted j cope of Gryne Sylk, j cope of whyt fustyane ij banners of Lynen clothe ij surpleces $v j$ alter clothes j chalis parcell gyllt iiij towelles

To the churche vse.-Apoynted by the said comyssioners the chalis with the Cope of whyt fustyane, with all the table clothes and surpleces The Rest comyttèd to the charge of them vnder wryten
$\left.\left.\left.\begin{array}{ll}\text { John Turner Curat } & \text { Wylliam Shery } \\ \text { Thomas Mvndaye } \\ \text { John Myller }\end{array}\right\} \begin{array}{ll}\text { churche-- } & \text { Wylliam Wylles } \\ \text { Thomas carter }\end{array}\right\} \begin{array}{l}\text { Wardens } \\ \text { Walter phelpes } \\ \text { John Aylvord }\end{array}\right\}$ parisheoners

## 232. The Chapell of LIGHE.

First j chalis of syluer parcell gylt j crose of laten j candelstyck of brase ij cruetes of led j cope of Grene Dornexe ij peyre of vestmentes one Red thother Grene wosted iij belles $j$ corporas with his clothe ij alter clothes of Lynen j alter clothe of Dornex j surples

To the churche vse.-Apoynted by the said comyssioners the chalis and the Cope of Grene Dornex with all the table clothes and surpleses the rest comytted to the charge of them vnder wryten

> Owen vpryce curat Walter phelpes John Myller

## 233. The Chappell of CHETNOLL.

First j chalis of Syluer j corporas and a clothe ij Table clothes iij payre of vestmentes ij candelstyckes of Laten iij belles

To the churche vse.-Apoynted by the said comyssioners the chalis and the cope with all the table clothes and surpleces The rest comytted to the charge of them vnder wryten.

$$
\begin{array}{ll}
\text { Austyne Grene curat } & \text { Tristrame Maynard } \\
\text { John Aylvord } & \text { Thomas Dyar }
\end{array}
$$

## 234. The parishe of BRODFORD.

First iij chalices of syluer j paire of vestmentes j cope of Crimeson veluet V peyre of vestmentes wherof one is of Sylk the rest of Dornex ij old copes iiij alter clothes of Saten of briges and V of canvas, Vj alter clothes of Dyaper j of locorom [lockram] Item one hundred of led in weight, half a hundred of candelstyck metall V belles in the tower, Viij towelles ij corporas iij corporas clothes

To the churche vse.-apoynted by the said comyssyoners the worst chalis $j$ cope of crymeson veluet with all the table clothes and surplesis, the rest comytted to the charge of them vnder wryten


## 235. The paryshe of STALBRIDGE.

Firste one paxe of siluer gilte, ij chalis, one gilte, thother vngilte, one pixe of syluer parcell gilte, one payre of Crewetes of Syluer, ij Crosses of coper ij payre of Crewetes of Tynne iij paxes, one of whyte bone, another of Brasse, \& another of coper, iij Sacrynge belles one sencer of Laten, iij payre of [sic] Stertes Lhandles?] of Brasse, iij corporas, iij corporas clothes, V Cussyns of Sylke, One Suet of vestmentes of whyte Damaske with a cope to the same \& an Aulter clothe of the same, one Suet of vestementes of grene Silke, with a cope, to the same, one payre of blacke Damaske, one payre of blewe Silke, one payre of whyte checker silke, one other payre of whyte Silke, one Cope of checked Silke, iij clothes for the Aulter, iij for the syde Aulter of diaper iiij frontes of stayned clothes a dexte clothe of the same, iij payre of curtens stayned iij Towelles, twoo napkyns ij kerches for the Crosse, one fyne towell of diaper ij dexte clothes of diaper ij towelles for the aulter. one towell for the fonte, iij Syrples ij rochetes, iiij Belles in the towre.

To the churche vse.-Appoyncted by the said commyssioners. one chalis vngilte one cope of grene Silke, with all the table clothes and Syrples The reste commytted to the charge of them vnder wryten

William Vowell curat
William Kayleway churcheJohn Jenes senior $\}$ wardens
$\left.\begin{array}{l}\text { Hughe Weston } \\ \text { Thomas Snoke } \\ \text { thomas Atwaters } \\ \text { John Jenes Junior }\end{array}\right\}$ parisheoners

## 236. The parishe of MARNHULL.

First iij chalices of Syluer ij parcell gylt thother vngilt j pax of Syluer j pyx of syluer iiij suytes of vestmentes ij corporas cases of sylk one of black veluet iij surpleces ij table clothes $j$ front clothe of sylk stayned ij candelstyckes of bras $j$ censer of bras ij candelstyckes of Syluer iiij belles

To the churche vse.-Apoynted by the said comyssioners the said chalis vngilt, one of the vestmentes with all the table clothes and surpleses the rest comytted to the charge of them vnder wryten
$\left.\left.\begin{array}{ll}\text { Robert Tucker Curat } & \text { Thomas Poldon } \\ \text { John Keylwaye } \\ \text { Nycholas Keylwaye }\end{array}\right\} \begin{array}{l}\text { churche- Nycholas Joyse } \\ \text { wardens } \\ \text { Thomas Keylwaye } \\ \text { Thomas bromker }\end{array}\right\}$ parisheoners
237. The parishe of MELBURYE BUBE with the Chapell of WOLCOMBE.

First ij chalecis of syluer, j corporas clothe ij kerchews ij alter clothes of lynen ij peyre of vestmentes one cope of blewe saten, iiij belles in the Churche of melbury forsaid and ij belles in the said chapell, ij candelstyckes of brase j bason of laten j crose of laten

To the churche use.-Apoyntend by the said comyssioners one chalis for melbury forsaid and the other for the chapell aforsaid the blewe Cope of Saten with all the alter clothes and surpleses and the rest comytted to the charg of them vnder wryten.
Richard Skaland parson
Walter Foye $\quad$ William Hebdige
Alexander buckeler
Walter Coxe
William Foye

Mem. 20.
238. The parishe of HYNTON MARY.

First $\mathbf{j}$ chalis of syluer iij belles in the tower j peyre of vestementes $\mathbf{j}$ cope j surples iij table clothes of Lynen ij candelstyckes of brase one paxe of laten.

To the vse of the churche.-Apoynted by the said comyssioners the chalis and Cope the rest comytted to the charge of the vnder wryten.
$\left.\begin{array}{ll}\text { John Chiles Curate } & \text { Robert Etman } \\
\text { Richard Shote ;churche- } & \text { Robert Markes } \\
\text { John Gardyner }\end{array}\right\}$ wardens \(\left.\begin{array}{l}John Hart <br>
<br>
<br>

\end{array}\right\}\) Henry samfer | Herisheoners |
| :--- |

## 239. The parishe of STOURE ESTOUER.

First j chalis parcell gilt ij corporas with their cases ij alter clothes ij candelstyckes of brase iij peyre of vestmentes one old cope of whyt Damaske ij surpleces j Rochet iij belles j sencar of bras

To the churche vse.-Apoynted by the said comyssioners, the chalis and Cope, with all the table clothes and surplecis the rest comytted to the charge of them vnder wryten.
$\left.\left.\begin{array}{ll}\text { John bleke curat } & \text { Richard pytrige } \\ \text { Richard Wyllet } \\ \text { Harry vanner }\end{array}\right\} \begin{array}{l}\text { churche- } \\ \text { wardens }\end{array} \begin{array}{l}\text { John Demer Coles } \\ \text { Jobert Grene }\end{array}\right\}$ parisheoners
240. The parishe of MARGARET MARSHE.

First j chalis of syluer parcell gylt ij table clothes j surples ij candelstyckes of laten $j$ crose of coper $j$ cope of dornex iij vestmentes $j$ pype of brase iij belles in the tower

To the churche vse.-Apoynted by the said comyssioners the chalis the cope of domex with all the table clothes \& surpleces the rest comytted to the charg of them vnder wryten.

$$
\begin{array}{ll}
\text { John George curat } & \text { John Hoper } \\
& \text { Johē Catman }
\end{array} \text { churchewardens }
$$

241. The parishe of MOTCOMBE.

First j chalis of syluer parcell gilt iiij old vestmentes ij copes ij front clothes of canvas stayned iij table clothes of lynen iij corporas cases iij surpleses j Rochet ij candelstyckes of laten j crose of laten $j$ censer of laten $j$ holywater pot of laten iiij belles j lyche bell

To the churche vse.-Apoynted by the said comyssioners the chalis and one cope with all the table clothes \& surplecis the rest comytted to the charge of them vnder wryten

\author{
John Wykes curat John Carre <br> William Wykes jchurche- William Spencer parisheoners William brokwaye $\}$ wardens William Mountyer

}

## 242. The parishe of YEWREN MYNSTER.

First ij chalis of syluer j crose of copper j pax of syluer j censer of copper $j$ pere of candelstyckes of laten $j$ pyx of syluer iij copes of sylke $V$ peyre of vestmentes thone of tany sylke with decon and subdecon, the second red sylke the third of red damaske thother ij of blacke ij corporas cases with theire clothes iij surpleses ij alter clothes iiij belles in the towere

To the churche vse.-Apoynted by the said comyssioners $j$ chalis $\mathbf{j}$ cope with all the table clothes and surpleses the rest comyted to the charge of them vndre wryten

243. The parishe of EST ORCHARD.

First j chalis of syluer j vestmentes [ssc] j cope ij candelstyckes of brase $i j$ table clothes $j$ front clothe of canvas stayned ij pax of brase $j$ peyre of censers of brase $j$ towell ij belles

To the churche vse.-Apoynted by the said comyssioners the chalis and cope with all the table clothes and surpleses, the rest comytted to the charge of them vnder wryten.
$\left.\left.\begin{array}{l}\text { Thomas Rede } \\ \text { John Collyns }\end{array}\right\} \begin{array}{c}\text { churche- William beamond } \\ \text { wardens John Chypman }\end{array}\right\}$ parisheoners

## 244. The parishe of TOTBERE.

First ij peyre of vestmentes, thone grene sylke thother blewe saye j cope of grene saye j chalis of syluer parcell gilt ij candelstyckes of brase j censer of laten ij belles

To the churche vse.-Apoynted by the saide comyssioners the chalis and the cope of grene saye with all the table clothes and surpleses the rest comytted to the charg of them vnder wryten
$\left.\begin{array}{ll}\text { William Gaye } \\ \text { Thomas Pope }\end{array}\right\} \begin{array}{c}\text { churche- } \\ \text { wardens }\end{array}$ John Cave $\left.\begin{array}{l}\text { Thomas Stone }\end{array}\right\}$ parisheoners
245. The parishe of CHILD OKEFORD inferior \& superior.

First j chalis of syluer parcell gilt j cope of grene saten of briges j surples ij paire of vestmentes of grene saten of briges ij alter clothes $\mathbf{j}$ towell iij belles.

To the churche use.-Apoynted by the said comyssioners the chalis and cope of grene with all the tabell clothes and surpleses the rest comytted to the charge of them vnder wryten.
\(\left.\begin{array}{ll}William Wylkockes curat \& Gylbert Shere <br>
William Arnold <br>

William freman\end{array}\right\}\)| churche- |
| :---: |
| wobdens | parishioners

246. The parishe of ST. JAMES in SHASTON.

First j chalis of syluer percell gilt ij peire of vestmentes ij copes thone of blewe veluet thother cheker ij corporas with their cases ij surpleses iij alter clothes ij towelles ij candelstyckes of Latyn ij sacring belles iij belles in the tower

To the churche vse-Apoynted by the said comyssioners the chalis the cope of blewe with all the table clothes and surpleses the rest comytted to the charge of them vnder wryten
$\left.\left.\begin{array}{ll}\text { Walter Hewes vicar } & \text { William percy } \\ \text { Antony Anketell } \\ \text { Richard Wilkynes }\end{array}\right\} \begin{array}{c}\text { churche- } \\ \text { Henry Henbery } \\ \text { wardens }\end{array} \begin{array}{l}\text { John beamond }\end{array}\right\}$ parisheoners

## 247. The TRYNITYE in SHASTON.

First ij chalis of syluer parcell gilt Vj peire of vestmentes ij copes ij pyxes one of bone thother of laten $j$ paxe of syluer parcell gylt Vj alter clothes of lynen iiij frontes to hang before the alter of peynted clothe j dyaper towell a canapye of Gryne sylke ij peyre of candelstyckes of laten ij banners of Sylke iiij belles j lytell saunce belles. [sic]

To the churche vise.-Apoynted by the said comyssioners $\mathbf{j}$ chalis $\mathbf{j}$ cope of blewe veluet with all the table clothes and surpleses the rest comytted to the charg of them vnder wryten

$$
\left.\begin{array}{ll}
\text { William Axe } \\
\text { John Rear }
\end{array}\right\} \begin{array}{ll}
\text { churche- } & \text { Peter Syluester } \\
\text { wardens } & \text { Walter blandford } \\
& \text { John Trent }
\end{array}
$$

## 248. ST. PETERS in SHASTON.

First xv peyre of vestmentes iiij copes xviij alter clothes iiij frontes to hange before the alter $j$ peyre of candelstyckes of laten j bason and yewer of laten ij chalis of siluer thone parcell gilt thother all gilt iij belles in the tower iij surpleses ix banners $i j$ stremers, Vj corporas cases iiij towelles

To the churche vse.-Apoynted by the said comyssioners $\mathbf{j}$ chalis j cope with all the table clothes and surpleses the rest comytted to the charge of them under writen.

John Rodberd parson John Fuell<br>William nell John bartor

## 249. The parishe of ROMBOLL.

First $\mathbf{j}$ chalis of siluer parcell gilt $\mathbf{j}$ cope of satene of briges Viij vestmentes ij belles iiij alter clothes ij towelles one border of Sylke ij curtynes of Red Sylke

To the churche vse.-Apoynted by the said comyssioners the chalis one cope with all the table clothes and surpleces the rest comytted to the charge of them vnder wryten
$\left.\begin{array}{cc}\text { Thomas Glase curat } & \text { John fowell } \\ \text { Peter Hascall }\} \text { churche- } & \text { John Haskall } \\ \text { Thomas pore }\end{array}\right\}$ wardens $\left.\begin{array}{l}\text { Thomas Sheve }\end{array}\right\}$ parisheoners

Mem. 20. d.

## 250. The Chapell of WEST ORCHERD.

First $\mathbf{j}$ chales of Syluer parcell gylt ij peyre of vestmentes thone of sylke thother of sa[ten of] briges, $j$ cope of Sylke $j$ crose of brase j censer of brase ij candelstyckes of [brase] ij belles

To the vse of the church.-Apoynted by the said comyssioners the chalis one cope with all the table clothes and surpleses the rest comytted to the charge of them vnder wryten
$\left.\begin{array}{l}\text { Walter Mewe } \\ \text { William Combe }\end{array}\right\}$ churchewardens

## 251. The parishe of HOLWALL.

First ij chalis thone gilt thother parcell gylt V belles in the tower j lyche bell ij s[acring] belles, ij crosses one of Coper gylt thother of laten and gylt ij copes one of pur[pull] veluet thother of old sylke a paxe of laten gilt ij pyllowes to laye the crose [vpon] iij peyre of vestmentes one of grene and Red veluet thother ij of sylke j lynen clothe to cover the vant ij corporas clothes ij cruetes of 'Tynne ij candelstyckes of brase j holywater pot of belmetall iij old towelles iij old alter clothes [of] lynen one front clothe for the alter stayned j surples a sepulcer clothe

To the vse of the churche.-Apoynted by the said comyssioners $\mathbf{j}$ chalis $\mathbf{j}$ cope with all the table clothes and surples the rest comytted to the charge of them vnder wryten

William Wolsaye parson Harry Olyuer Robert Olyuer \}churche- William Shaffy \{ parisheoners Edward Keby ) wardens

## 252. The parishe of CAUNDELL EPISCOPI.

First ij chalis of syluer one all gylt thother parcell gylt V table clothes ij towelles of dyaper iij shetes of lockrome iij front clothes for the table a grene sarcenet that served for the pyx iiij peyre of vestmentes wherof ij be saten of briges, ij old copes of veluet one blewe thother Red $j$ surples a peyre old sencers of bras ij candelstyckes of brase iiij belles in the tower a holy water pot of bras

The churche vse.-Apoynted by the said comyssioners j chalis tbe Red cope with all the table clothes and surplesis the rest comytted to the charge of them vnder wryten

Thomas Elyot curat
$\left.\begin{array}{ll}- \text { Richard Farley } \\ \text { Richard byrt }\end{array}\right\}$ churchewardens $\begin{aligned} & \text { Thomas Lyllye } \\ & \text { Raynold martyne }\end{aligned}$

## 253. The parishe of PURSE CAUNDELL.

First $\mathbf{j}$ chalis of syluer iij belles iiij peyre of vestmentes of sylk ij copes one of [silk] thother of Dornex iiij alter clothes ij candelstyckes of laten ij cruetes of lede j crose of laten j sencer of laten $i j$ corporas with there cases ij banners of peynted . . . .

To the churche vse.-Apoynted by the said commyssioners the chalis the cope of Dornex, with all the table clothes and surpleses the rest comytted to the charge of them vnder wryten

$$
\left.\left.\begin{array}{ll}
\text { Thomas Moden parson } & \text { William Mewe } \\
\text { John Domet } \\
\text { churche- } & \text { Thomas Duffet } \\
\text { John Mewe }
\end{array}\right\} \text { wardens } \begin{array}{l}
\text { Thomas James }
\end{array}\right\} \text { parisheoners }
$$

## 254. The parishe of STORTON CAUNDELL.

First $\mathbf{j}$ chalis of syluer parcell gylt $\mathbf{j}$ pyx of laten j shipe of laten j crose of Laten j peyre of candelstyckes of laten j peyre of censers of laten j vestment of yelow [silk] j of blacke wosted ij copes of whyt and red sylke j peyre of curtynes of [silk] iij table clothes iiij belles in the tower

To the churche vse.-Apoynted by the said comyssioners the chalis $\&$ the red cope with all the table clothes and surpleses the rest comyted to the charge of them vnder wryten

Robert Symondes curat John byell ;churcheWilliam Clement $\}$ wardens

Laurence Hanne
Peter Mewe parisheoners Ellis churchill $\}$

## 255. The parishe of LYD LINGECHE.

First j chalis of syluer gylt j peyre of vestmentes of red sylke ij candelstyckes of bras j crose of laten j alter clothe j towell ij chesebelles iij belles

To the churche vse.-Apoynted by the said comyssioners, the chalis and vestment with all the table clothes and surpleses the rest comytted to the charge of them vnder wryten

> Thomas Jurdan parson Nycholas Roman
> Jeffery Roman churche- Edmond narbard)
> Richard Eyre wardens Richard Styckley $\}$ parisheoners
> nycholas Hane

## 256. The parishe of KINGTON MAGNA.

First j chalis of syluer j crose of laten j cope of Red saten of briges ij peyre of vestmentes thone of whyte saten of brigis thother of grene j surples j alter clothe a corporas clothe iiij belles $j$ censer ij candelstyckes of brase

To the churche vse.-Apoynted by the said comyssioners the chalis and cope with all the table clothes and surpleses the rest comytted to the charge of them vnder wryten
$\left.\begin{array}{ll}\left.\begin{array}{l}\text { Robert palmer curat } \\ \text { John Coke } \\ \text { John yonge }\end{array}\right\} \begin{array}{ll}\text { churche- }\end{array} & \text { Robert Everod } \\ \text { wardens } & \text { Christopher were }\end{array}\right\}$ parisheoners

## 257. The parishe of BOCHORNE WESTON.

First j chalis parcell gylt j cope of grene sylke ij peyre of vestmentes j of blewe sylke thother of saye ij surpleses iij alter clothes ij candelstyckes of brase j censer of bras iij belles in the tower

To the churche vse.-Apoynted by the said comyssioners, the chalis and cope of grene with all the table clothes and surpleses the rest comytted to the charg of them vnder wryten

Richard Hart parson
$\left.\begin{array}{l}\text { Elysaunder yong } \\ \text { Thomas Davage }\end{array}\right\} \begin{gathered}\text { churche- } \\ \text { wardens }\end{gathered}$
Harry yong parisheoner

## 258. The parishe of SUTTON WALRON.

First ij peyre of vestmentes of Saten of briges ij copes one of saten of briges thother of whyt thred j chalis of Syluer ij candelstyckes of brase j broken Crose of brase iij alter clothes to hang before the alter of saye and xij Lynen Clothes to ley apon the alter j pyx of brase j censer of brase iij banners of lynen clothe j corporas with his Clothe ij surples one clothe callid a Lent clothe iij belles in the tower

To the churche vse.-Apoynted by the said comyssioners the chalis one cope with all the table clothe and surpleses the rest comytted to the charge of them vnder wryten.


## Mem. 2 I .

## 259. The parishe of MANSTONE.

First j chalis of syluer parcell gilt ij copes of saten of briges V table clothes of lynen iiij belles iij vestmentes one of purple veluet ij of grene saten of briges $j$ crose of brase $j$ pyxe of laten ij frontes of clothe of goold ij surples j bruing led iij corporas and ij cases

To the churche vse.-Apoynted by the said comyssioners the chalis j cope with all the table clothes and surpleses the rest comytted to the charge of them vnder wryten

Thomas Cooles parson
John Dycke $\quad$ churche- John Comyche
Thomas Rident wardens Robert Tappe ? parisheoners
260. The parishe of FYFFELD MAUDLYN.

First j chals of siluer parcell gilt iij vestmentes one of whyt damaske, j of blacke saye the third of red saye ij copes j of red veluet thother of red fustyane of apes $i j$ table clothes of lynen $i j$ brasen candelstyckes $j$ holywater pot of brase $j$ surples iij belles in the tower

To the churche vse.-Apoynted by the said comyssioners the chalis one cope with all the table clothes and surpleses the rest comytted to the charg of them vnder wryten.
$\begin{array}{ll}\text { Robert Newman ;churche- John Newman } \\ \text { Robert browne } & \text {, wardens John Somer }\end{array}$ parisheoners
261. The parishe of EWREN CURTNEY.

First j chalis parcell gilt j vestment of crimeson veluet j of saten of briges j of grine with birdes j of chaungeable grene and yewlow j of blewe sylke embroderid with pecokes with j cheseble with decon and subdecon of the same $j$ cope of crimeson Damaske one aiter clothe of blewe and yellowe sylke j of lynen stayned j corporas case of clothe of goold and veluet iij belles V old table clothes

To the churche vse.-Apoynted by the said comyssioners j chalis the cope of crimeson damaske with all the table clothes and surpleses the rest comytted to the charg of them vnder wryten

Thomas Hebbes Curat Christopher Swetname
Robert Godwyne, churche- Edward tapper Johr Candye wardens John wyche
262. The parishe of FARINDON.

First ij peyre of vestmentes of lynen j surples j cope of tany Damaske ij alter clothes ij belles

To the churche vse.-Apoynted by the said comissioners the cope of tany damaske with all the table clothes and surpleses the rest comytted to the charge of them vnder wryten

> Thomas Hebbes curat
> Edward Tapper John Wyche

## 263. The parishe of OKFORD PHIPPIN.

First j chalis of siluer hole gilt iij peire of vestmentes j purple veluet j whit saten of briges thother of black chamelet ij copes j of purple veluet thother of whyt saten of briges iiij alter clothes j of saten of briges iij of lynen j crose of bras ij surpleses iiij belles in the tower

To the churche vse.-Apoynted by the said comissioners, the chalis and cope of whyt saten of briges with all the table clothes and surpleses the rest comytted to the charg of them vnder wryten
$\begin{array}{ll}\text { Thomas Hanne curat } & \text { Edward House } \\ \text { William Whyt } \\ \text { Nycholas Mewe }\end{array}$ churchewardens $\left.\begin{array}{l}\text { John phelpes } \\ \text { William Fote }\end{array}\right\}$
264. The parishe of RYME.

First j chalis of siluer j vestment of Grene saten j cope of blewe saten of briges ij cruetes of led j censer of brase ij candelstyckes of brase j crose of laten ij basons of brase j holywater pot of brase ij belles ij kye at xxiiijs. price

To the churche vse.-Apoynted by the said comissioners the chalis and cope with all the Table clothes and surpleses the rest comytted to the charg of them vnder wryten.

William Hodges parson
William Russell
Richard parker

## 265. The parishe of MELBURY ABBIS.

First j chalis of syluer parcell gilt j cope of whyt Damaske j peire of vestments of red veluet $j$ cheseble of whyt canvas iiij candelstyckes of brase j surples ij table clothes j front of Sylk j crose Laten j censer of brase iiij belles in the tower

To the churche vse.-Apoynted by the said comyssioners the chalis and cope with all the table clothes and surpleses the rest comitted to the charg of them vnder wryten
$\left.\begin{array}{ll}\text { Robert byrd parson } & \text { John Hiscock } \\ \text { William Dewbyn; churche- } & \text { William Forse }\end{array}\right\}$ parisheoners
266. The parishe of SHIRBORNE.

First iiij belles ij suytes of vestmentes with decon subdecon and cope to the same ij other copes, j front to the highe alter $\mathbf{j}$ chalis of syluer parcell gilt ij corporas and ij clothes ij curtuns of sylk j peyre of Red vestmentes j peyre of Grene vestmentes iij other peyre

To the churche vse.-Apoynted by the said comissioners the chalis and the whit cope with all the table clothes and surpleses the rest comytted to the charg of them vnder wryten
$\left.\left.\begin{array}{ll}\text { Nycholas Ingleber } \\ \text { Thomas Wyneff }\end{array}\right\} \begin{array}{ll}\text { churche- } & \text { John yong } \\ \text { wardens } & \text { William mevor } \\ & \text { Jarvis Aishley } \\ & \text { John Stephens }\end{array}\right\}$ parisheoners
(Signed)
GYLES STRANGWAYES
JOHN HORSSEY
GEORGE DE LA LYND
THOMAS TRENCHARD

Mem. 22.

## THE DEFAUTES OF THE DENRIES above wrytten as foloweth

The parishe of CHERMESTER.
Ther Lackythe one challys sold by the parishoners waynge xij onces at iiijs. viijd. the once comythe to

The parishe of RADYPOLL.
Ther lackythe one cope of saten of brydges price vs.

The parishe of WYNFRYTHE.
Ther Lackythe one chalis of syluer \& one pax of syluer waynge xix onces at iiijs. viijd. the once

The parishe of WHYTCHURCHE.
Ther lackythe one coppe of blewe chamlet price xs. j vestment blewe veluet price xxs.

## The parishe of MEADON NEWTON.

Ther Lackythe one bell sold by the parishoners for

> xxxłi.

The parishe of EST STAFFORDE.
Ther lackythe one payre of vestmentes which were stolen

The parishe of CORF CASTELL.
There lackythe one bell which was solde by the parisheoners ther for

The parishe of COMPTON VALENCE.
Ther lackythe one pax of syluer sold for vijs.
The parishe of DALWOODE.
Ther was stollen one chales price of xxxs.
The parishe of VPPWAYE.
Ther lackythe one bell sold by the parishoners [sic]
ixti. vjs. viijđ
The parishe of LONGE PREDY.
Ther lackythe one chalies sold by the parishoners for xxxiijs. iiijd.

The parishe of RAMSOULE,
Ther lackyth one crose of syluer parcell gylt one shippe of Syluer Too candelstyckes Syluer \& \} one sence of syluer sold by the parishoners

The parishe of PYLLYSDON.
Ther lackythe Too belles which were stollen

> The parishe of FYFED NEVELL.

Ther lackythe one chales which was sold by the parishoners for

The parishe of SERON.
Ther lackyth one chales \& a bell sold by the parishoners

The parishe of BURTTON.
Ther lackythe one bell wch was stollen

158
The parishe of . . . . ON.
Ther lackythe one bell
The parishe of FOWNNELL.
Ther lackythe one chales of syluer, a pyx of syluer \& one cope of veluet

The parishe of ST PETERS in SHASTON.
Ther lackythe one bell solde for xxiijti xs

The parishe of HYNTON MARTEN.
Ther lackythe one challes sold by the parishoners for xls

The parishe of VPCERNE.
Ther lackythe one bell one cope of fustion $\mathbf{j}$ chesebell of sylke $\mathbf{j}$ albe with a vestment of sylke, j Aulter clothe of sylke, \& iij lynnen clothes j Towell of Dyaper one fyne shete $\& \mathrm{ij}$ kerchefes, ij latten crosses, ij candelstickes of bras ij cofers, A pece of lead waynge lxxxti Taken a waye [by] one Jane Sturton executryx to Mr Roger Stourtan lorde of Vpcerne.

> Mem. 23. (end).

## CANFORD, WYMBORNE MYNSTER, POLE.

Ther be no Inventories taken by reson of the plague \& they have lost ther olde Inventories as they have send vs word wher vppon ther ys no vewe taken

## EXPLANATION OF WORDS

taken from various works, mainly from Walcott's Dictionary of Sacred Archacology, Stratmann's Middle English Dictionary, Halliwell-Philips' Dictionary of Archaic Words.

Bedstones. "Bedstones of syluer \& gylt" (Beaien, prayers). Beads. Bodkin, Bandkyn, Bottken. A rich cloth of silk with threads of gold interwoven.
Branched. Embroidered.
Caddes, Caddis. Worsted ribbon or woollen stuff.
Chamlet, Chamlit. Some Eastern fabric.
Cossynge. Cushion.
Dexe, Dexte. Desk.
Dornax, Dornex, Durnex. Coarse damask made at Doornax or Tournay.
Kye. "ij Belles ij kye at xviiijs. (264). Cows, kine?
Latten. A mixed metal resembling brass in its nature and colour.
Lockram. "Towelles of lockram" (106). An inferior linen.
Paire, Peyre. "A paire of vestments." A set, or suite of vestments. The fine Eucharistic vestments.
Poppenge, Popingaye. A kind of coloured cloth.
Playno. "Tawny playno" (i20). From planin to plane, make smooth. A smooth cloth of tawny colour (?).
Samite. A very rich silk or satin, sometimes interwoven with gold or silver threads.
Sec. Amongst the names subscribed to the Fordington list is "John Baron, sec." Sec. is probably an abbreviation of secretarius, sacristan, " qui ecclesiae secretum curat sacrista." (See Maigne D'arnis.)
Stayned. "Stayned clothe." Painted cloth, paintings on linen. Sypers. "Red satten of Sypers." Cyprus, cloth of Cyprus.
Taffeta. A thin silken material.
Tewke, Tweke. "Blue Tewke" (117). "Tewke to make purses of, trelis."
Tinsin. A species of satin.


## 

By the Rev. C. W. H. DICKER, F.R.G.S.

(Read Dec. 13th, 1904.)

key to the Natural History of Australia lies in her geological story. She is the oldest country in the world. Her living indigenous inhabitants might justly regard our Eocene and recent fauna and flora as mere mushroom growths of yesterday. As Salisbury Cathedral comes to us from the Episcopate of good Richard Poore, so Australia comes to us from that hour of the world's morning when flowers first opened to the sunshine, and four-footed beasts first trod " the pastures of the wilderness."

Picture a vast continent covered with Triassic rocks, resting upon a solid silurian table-land, and peopled with those living ferns, calamites, cycads, palms, conifers, fishes, lizards, crocodiles, birds, and marsupial mammals, whose fossil remains are dug up in the coal-measures, oolite and chalk deposits of England. Next, imagine a slight tilting of the whole land-the western side lifted up and the eastern depressed below sea-level -followed by an abrupt upheaval of the ancient line of the eastern coast to a considerable elevation, and then you will have
some idea of what happened to the Australian Continent during the Cretaceous period. As will be seen by the accompanying map, it would now appear as two islands-one, an extensive

A. Western Island, dating from the Silurian Period.
B. Tract of Land submerged during the Cretaceous and Early Tertiary Periods.
C. Eastern Island or Chatn of Islands. This Region has undergone changes of elevation and has been the scene of much volcanite activity at various periods.
(Adapted from Wallace's "Island Life.")
table-land, on the west, with its undisturbed original population of plants and animals, whilst over against it, on the east of a shallow sea, there stretched a lofty ridge of materials chiefly
secondary, crowned in many places with sheets and caps of basalt and lava. Since this period a general elevation of the whole land has taken place; and, although much of the old ground has disappeared and Tasmania is now cut off, the shallow tertiary sea has dried up, and Australia is again one continent.

To this geological tradition we owe the peculiar charm of Australian plant and animal life. We really have before us a great game preserve of Mesozoic times. Cut off by breadths of deep sea from Asiatic lands, its denizens were exempt from interference on the part of rival claimants in the struggle for existence, whilst, during the subsidences and submersion of the Cretaceous period-so fatal in the similar case of the British Isles-they had a safe asylum to the westward in which a large proportion of existing forms of vegetable and animal life survived. Thus Australia preserves the types of Mesozoic vegetation and animals which Britain has lost and replaced by more recent forms-it is, in fact, an "Ark." Its flora and fauna have had simply to settle accounts amongst themselves and develope any modifications rendered necessary by a few gentle terrestrial changes. There have been, of course, occasional immigrations of birds, reptiles, fishes, bats, such small rodents as might come in ships or on driftwood, and at some fairly recent period there was the introduction of the "Dingo;" but nothing has occurred to greatly disturb the balance of power in the possession of "Secondary" types.

The interior for many months in the year largely presents the aspect of arid and waterless desert, many thousands of square miles having no permanent water supply. When it does rain (at very uncertain intervals) the land responds bountifully, and clothes itself with grass waving breast high. Rivers roll through the plains, large areas are flooded; but soon the water sinks out of sight, the grasses are bleached, then break off, and are blown away, leaving the land a desert again. Here an interesting geological fact enables the colonist to struggle successfully through rainless seasons.

Amongst the Cretaceous rocks tilted by the upheaval of the eastern coast-line are extensive beds of bibulous sandstone, which crop up at high elevations on the landward side of the ranges. (See diagram.) These ranges, densely forested, attract

## II.

Water-bearing STrata, Easter'n Australia.

raceous.-1, Desert Sandstone. 2, "Rolling Downs" Formation. 3, Water-bearing Strata.

Jurassic.-4, Darling Downs Basalt.
5, Carboniferous Measures.
Triassic.- 9 , Toowoomba Basalt.
7, Sandstones and Carboniferous Strata.
Paleozolc.-8, Silurian Rocks.
a heavy rainfall, a good proportion of which is taken into the absorbent beds, and is passed underground to great distances. Thus a storage reservoir is formed, available by means of artesian bores, for the supply of farms and mining ventures far away in the deserts of the interior. Many hundreds of these bores are now effectively at work.

Botany.-In the "Dirt-bed" at Portland are found some lumps, called by the quarrymen "Crows' nests," which are really the bulbous stems of Zamias. These plants belong to the Cycadacee, an Order abundantly represented in Queensland and New South Wales to-day. Dr. Carruthers (Tr.L.S., xxvi., 675) mentions 6 sp . as having been found in Dorset.

Another fascinating Order is the Proteacea. Geologically these rank as the oldest of true flowering plants, and occur in the lower rocks of the secondary period. (See diagram.)
111.

Proteacefe.


The ferns of Australia are mostly well-known in England; but here one can form no idea of the true effect of tree-ferns in their native glens and gorges, where the Cjatheas, Alsophilas, and Dixonias form majestic groves, their heads towering to a height of sometimes 30 or even 40 feet above dense thickets of smaller kinds.

What the pine woods are to Canada, the Gum forests are to Australia. Over tens of thousands of square miles the Eucalyptus reigns supreme, spreading over ridge and valley, clothing all Nature in one great garment of sad-coloured green. This noble Order of the myrtle family includes no less than 140 species. The flower is furnished with a curious woody calyx, the united

IV:


Eucalyptus alobulus (Lab.).
petals forming a sort of hat, which comes off when the numerous stamens arrive at maturity. The first leaves put forth are rounded, of a pale-bluish hue; but subsequently all are lanceolate or sickle-shaped, dull olive in colour. These hang
downwards from the branches, and give the tree a rather woebegone aspect. One pleasant exception, however, to this rule is the small Tasmanian $E$. Cordata, of which a beautiful specimen is growing in Lord


Fucalyptus Cordata
(Labillardière). Ilchester's garden at Abbotsbury. I once went there when it was covered with a mass of silvery blossom-a lovely sight.

The Acacias, or "Wattles," form a division of the Leguminosia, numbering over 400 species. This genus possesses a regular corolla (generally minute) and a mass of conspicuous stamens, whose yellow anthers clothe whole stretches of country at some seasons with brilliant colour. The Wattles range in size from a small bush to a tree 50 feet high. Sometimes the leaves are daintily pinnate and feathery, but in many species they resemble those of the mistletoe. Some of the Acacias are cultivated for the sake of the bark, which is valuable for tanning purposes. The flowers are very fragrant; at times the scent of $A$. dealbata is almost overpowering.
In the warmer parts of New South Wales, in Queensland, and Tropical Australia the forests partake of the regular jungle character, in which we get a number of types familiarised to us by our hothouses and conservatories. Many palms, the magnificent Moreton Bay Fig, the vast wealth of creepers, whose festoons of foliage and flower hang from tree to tree, tall tree-ferns, cycads, jets and clusters of brilliant orchids, elk-horn and bird's-nest ferns high overhead, all conspire to form scenes
of enchanting beauty. But the tropical flora (as Wallace points out) is not truly typical of Australia, being largely made up of immigrants from beyond sea.

I ought, I think, to mention one characteristic Order, namely, the group of plants belonging to the Epacris family. Their number and surprising variety of types-varying from dainty alpine elves to stately palm-like growths of 30 feet-the exquisite colouring of their flowers and berries, have made the Epacrids deservedly popular. Two typical forms will be found in Plate III.

There are hardly any deciduous trees, in our English sense of the word, in the southern continent ; as a rule, all are evergreen. I have personally only made the acquaintance of one-a dwarf beech ( $F$. gunnii)-which loses all its leaves in winter. This reminds us of a rather puzzling thing. In Tasmania there is a limestone deposit, apparently of Miocene Age, in which the leaves of willow, alder, birch, oak, and beech occur. Why and whence did these strangers come-" guests that tarry for a day" -and then die out, leaving behind them only our one little deciduous beech ?

Zoology.-Here we find in the flesh a number of interesting survivals, who, secure in their old Ark, escaped the Deluge of change which overcame Purbeck and Portland and prepared the way for Dewlish elephants and other novelties. One old friend we are glad to welcome-a veritable "queer fish," the Ceratodus of Queensland, found in the English Lias. He grows to nearly 6 feet long, and, being related to the Amphibra, is able to crawl out of the water at night and indulge a healthy taste for green stuff. The bushmen tell us he climbs trees, but one can't always digest what bushmen say. An earlier fish still, whose teeth are very familiar to Dorset geologists, has a way over there of making himself unpleasantly familiar to Melbourne swimmers, under the name of " Port Jackson Shark."

Whilst these ancient fishes were enjoying an existence unspoilt by human interference in Dorset waters, mammalian quadrupeds made their appearance on dry land. Prof. Owen
brought to light the fact, now generally accepted, that these were what we now call Marsupials. One at least of the small beasts of the Portland Stone-beds belongs to a species of kangaroo rat now actually alive in Australia-Myrmicobius. Animals of this natural Order are distinguished by the provision of a marsupium, or pouch; their fossil remains are identified by the peculiar inward curve of the lower jawbone and by a pair of flattened " marsupial bones" upon the front edge of the lower part of the pelvis. The young marsupials are born in an extremely immature state-mere tiny boneless lumps of flesh. Immediately after birth they are placed (by means of some incomprehensible manipulation on the part of the parent) in the pouch, in whose recesses they remain permanently attached to the papillæ for some months. In some of the larger marsupials the young, after they are weaned, still use the pouch as a place of refuge. I have seen a kangaroo "joey" take a flying dive of a couple of yards into his mother's ready pocket, and instantly turn himself round and pop his head out to have a good look at me.

At the bottom of the scale, in the order of development, comes the family known as the Monotremata, peculiar to the southern colonies of Australia, represented by two types well known as the "Platypus" and the "Porcupine." Although quadrupeds, they are structurally related to the birds. Both animals were fairly common in my Bush parish, and I have more than once seen a Platypus family splashing and romping, rolling each other over and over, in the river at sunset. The Echidna, or Australian porcupine, feeds upon ants and other insects. It delights to stroll along the middle of the road at night, and has often frightened my horses. It is easily caught by seizing a hind leg. Its spines are short, but sharply pointed, and embedded in a coarse brown fur.

Marsupials include a great many sub-Orders and species, from the great Forester, or Old Man Kangaroo, down to the tiny Opossum Mouse. The largest kangaroo is on the way to extinction, but the Brush Kangaroo, the Wallaby, and smaller kinds are holding their own in the forested regions. In this

Order there is also an extensive series of carnivora, the largest being the Tasmanian Wolf (or "Tiger," as he is named on account of his striped body). A large price is set upon the head of this animal owing to his destructiveness amongst the sheep. I knew a case in which one "tiger" killed a dozen sheep in one night. He was afterwards slain by a shepherd, who showed me the skin, measuring 7 ft . 6 in . from nose to tail.

Another creature, called the "Tasmanian Devil," made himself extremely objectionable in my neighbourhood as a robber of poultry roosts, and extremely difficult of capture. Then there are the Opossums, whose fur is getting more valuable every year, the beautiful little "Flying Squirrel," endowed with a membrane, uniting its fore and hind limbs, which can be employed as a parachute in leaping from tree to tree, and the Wombats, queer, drowsy things that readily take to human society. This character belongs also to the Koala, which resembles a pretty little bear, and is a favourite pet of Australian children, although its nocturnal tastes make it playful at wrong times, and lead it to undesirable excursions up your curtains and bookshelves.

Reptiles.-Of the crocodiles of Northern Australia it is noteworthy that one species ( $C$. porosus) is found both in Queensland and India. Lizards are well represented, some attaining a considerable size. Perhaps the most remarkable is the big "Frilled Lizard," of which I have a skin for your inspection. The Monitors (commonly called "Go-anners") are very numerous, and sometimes very large.

Then as to snakes. In Australia they are certainly "common objects of the country"-unless you happen to be looking for one with a stick. Very beautiful creatures some of them are, notably the Black Snake (Hoplocephalus superbus), with its scales of burnished jet glancing in the sun, and its pretty flattened neck inflated to the breadth of a man's hand whilst it sits up to look at you, the huge Diamond and Carpet snakes (varieties of Python spilotis), harmless and easily domesticated, the striped and agile Tiger-snake, by no means so harmless, the ubiquitous little

Whip-snake, cropping up playfully in your wood-heap, amicably on your verandahs, and irreverently in your pew at church.

And the frogs. After rain one's sleep is banished by serenading choirs-soprano frogs, alto frogs, tenor, bass, and double-bass frogs, a bell frog, and a talking frog that goes beyond them all. The most beautiful frog I ever saw was the "green and gold" of Tasmania-purest emerald green, with vivid metallic-yellow gold markings.

Birds.-One shrinks from tackling bird-lore in a general paper. It is a subject that deserves far more adequate treatment. Here are just a few interesting items. The Emus represent one of the oldest types of bird life in Australia. Two species survive out of four, which were common at the beginning of the last century. The Tasmanian kind became extinct soon after the military authorities took to feeding the garrison on it. There will probably be no wild Emus after another generation; but it breeds in confinement, and is easily tamed. It is interesting to watch a bun slowly gliding down a yard of Emu's neck.

The Brush Turkey (Catheturus Lathemi) has a habit of incubating its eggs in a scientifically-constructed hot-bed made of decaying leaves. Quails, several Plovers, and the Bronzewing Pigeon are the chief quarry of sportsmen. A beautiful Crane too often falls to the gun ; it is very nice to eat.

In Queensland there are fine Spoonbills and Pelicans, and Ibis in great numbers. The blackfellows catch the Pelicans by standing in the water up to the chin, with their heads concealed by floating litter. When the birds swim around they are seized by the legs. The Black Swans form enormous flocks at some seasons of the year. I once saw a vast multitude flying northwards, and heard their voices overhead far into the night.
'The Native Companion (Antigone Australasiana), a big stately Crane-like fellow, is worth mentioning as being also found in India. Amongst other peculiar Australian birds are the Parrots and Cockatoos, the Jackasses, the great Night-jar or More-Pork, the Spine-tailed Swift, and the Penguins. Hawks and Owls are largely represented; in Tasmania there is a beautiful white Goshawk.

After all, there is nothing like the charm given to Nature by the presence and the voices of the birds. Certainly there is nothing more distinctively Australian than the music of the Bush-the plaintive chromatic scale of the Green Cuckoo, the soft laughter of the Bronzewing,

> "Dulce loquentem,"
the vulgar hullabaloo of the laughing Jackasses, the crack of the Stockwhip-bird, the sweet weird melody of the black Magpies. Years are passing away too quickly since I said good-bye to those charmed scenes under the Southern Cross ; but the voices of the Bush ring in my memory still.

## VI.




## Zたtotes ont the

##  of the Zost Eentury.

By the Rev. F. W. GALPIN, M.A., F.L.S.


year 1644 was fraught with momentous consequences for village and for town. The edict had gone forth from Parliament "for the speedy demolishing of all organs, images, and all matters of superstitious monuments in all cathedrals and collegiate or parish churches and chapels throughout the kingdom of England and the dominion of Wales: the better to accomplish the blessed reformation so happily begun and to remove all offences and things illegal to the worship of God:" and thus the treasures which piety had spared from the wreck of the past were scattered beyond the confines of the realm or destroyed in the fanatical zeal of the new reformers. So it came to pass that Divine worship was robbed of its sweetest accompaniments, and for ${ }_{1} 50$ years the Psalmody was entirely dependent, except in the cities and large towns, on the musical knowledge of the parish clerk, whose duty it was to "sette the tune" with such aptitude and ability as he himself possessed, or, failing these, by the help
of a wooden pitch-pipe. Towards the end of the eighteenth century, however, an awakened interest was aroused throughout the country in the better care of the church fabric and the more hearty rendering of the Church service. The old pitch-pipes were discarded, and, although the clerk from his seat below the parson's desk still sustained the dignity of his office by a longdrawn Amen, yet the more tuneful portions of the service were undertaken by a select company of "singers and musicianers," who, installed at the west end of the sacred building or occupying the western gallery, which they soon regarded as having been especially erected for their comfort, filled with mingled admiration and envy the up-turned faces of the congregation.

How graphic a picture Thomas Hardy gives us of these old Dorset choirs in his charming tale of village life, "Under the Greenwood Tree"! The importance of the "men of strings," who, with violin and violoncelio (still called, though erroneously, the "base viol"), "spoke to the heart with an incomparable sweetness"-their rooted objection to the "reed men" who, with "tooting clar'nets," were gradually introduced into the select company. "Clar'nets were not made for the service of Providence," said Mr. Penny ; "you can sec it by looking at 'em"their unspeakable horror at the impudence of the girls of the newly-formed Sunday School, "who didn't sit in the gallery, and yet did sing every note as if 'twas their own, every note as loud as we, fiddles and all, if not louder-the brazen-faced hussies, while as for them harmoniums and barrel-organs-what shall I call em ?-miserable machines for such a Divine thing as music." "Right, William, and so they be-miserable sinners." Unfortunately, as many of us think, the miserable sinners won the day; harmoniums and barrel-organs proved the death of the gallery men, and few of the present generation have seen the church band in its accustomed place or raised their voices to the accompaniment of the village musicians.

It is, however, only ten years ago since one of the last, if not the last, of these bands in its original form (without the inevitable harmonium) disappeared in our county, and I have been
requested to put on record a few notes gathered together during a short stay in South Dorset, when I had the privilege of worshipping in the church of Winterborne Abbas, six miles from Dorchester, where at that time the church band still held its own.

I well remember our first introduction to the little edifice and its quaint customs. Unwonted sounds issued from within, and as we entered the reason became apparent; it was the band getting into tune for their immediate duties. There were three performers ; the thatcher (J. Dunford, clerk) played the clarinet and acted as leader; a farm labourer (R. Tompkins) played the flute, while the bass was in the hands of the shepherd (W. Dunford). They were placed at the west end of the church under the tower on a rising platform, the violoncello and flute playing at a long desk on the lower steps, while the clarinet stood at a desk on the step above, supported on either side by the singers, and in a position to mark the time for all by the swing of his instrument. There was no voluntary, except the "tuning up," and, as the chants to the canticles were not played over, we awaited with interest the first hymn. The worthy rector, a Fellow of an Oxford College and Proctor of his University when Sir Henry Bishop received his Doctor's degree, is now laid to rest. As he gave out the Psalm from his square reading pew, overshadowed by a lofty Jacobean pulpit, nothing else could have been required to complete the quaintness of the surroundings. "Let us sing to the praise and glory of God the one hundredth Psalm," whereupon the band struck up in unison (or as near it as the warm afternoon would permit) a curious four-note phrase, which, with various elaborations, was played before each psalm or hymn in the key of the piece following, and was called "sounding off the tune." The phrase was evidently based on the old watchmen's refrain, " Past three o'clock." The psalm was not played over, but the opening verse was read through by the minister. Then the singing commenced; for the first verse our trio of musicians arranged itself thus:-The clarinet played the air, the flute the tenor (an octave above the voice), and the
violoncello the bass. The tune " going" remarkably well, in the second verse the clarinet proceeded to play the alto an octave higher; so for the remainder of the psalm we were in this order:-alto (8ve higher), tenor (8ve higher) air, bass-an arrangement which apparently did not distress the performers or disconcert the singers. At certain places, presumably in sympathy with the words, the clarinet executed original variations which were themselves varied with an occasional tap on the head of some wayward youngster in front. I think the Winterborne band may be taken as typical of the constitution and methods of these church bands in their later stages; at any rate, the arrangement, as we saw it, had remained the same for fifty years at least. The absence of the violin was due to the wishes of the parson, who shared the once general opinion that it "savoured of the publichouse."

A mile along the high road brings us to Winterborne Steepleton, at one time a very musical village and boasting a voluminous composer in Samuel French, the tailor. In his day, before the middle of the last century, the church band consisted of a violin, flute, two clarinets, and a bass, one of the clarinets taking the bassoon occasionally until the instrument was objected to as " not a piece of church music." The band, reduced at last to one båss, disappeared in 1881, giving way to a new American organ.

But the church most celebrated in this valley for its instrumental and vocal music was that of Winterborne S. Martin or Martinstown. The singers numbered about 20, with two "counters" or male-altos, of which the village was justly proud, and in 1820 the band consisted of four clarinets, a hautboy, and a "base viol," divided thus:-Two clarinets for the air, two clarinets for the counter-tenor, the hautboy for the tenor (playing an octave above the voice), and the violoncello for the bass. The hautboy player, a mason, locally known as "Uncle James," who also blew "the loud bassoon" in the village band, was in these early days leader, and gave out the psalms. The hautboy was not an unusual instrument in the
church music, and the people of this Dorset valley called it the "Vox umaner"-a title which modern orchestral players have also given it. It was, however, a hard instrument to blow (though not so impossible as the famous "brazen serpent"), and the appalling example of a man in a neighbouring village who blew himself blind by playing it deterred others from attempting it. After " Uncle James" had retired from the conductorship the village blacksmith, John Norman by name, became leader and composer ; he was a good musician, and his settings of psalms and anthems appear in many of the tune books. Under his direction the church band consisted of two flutes, a clarinet, and a bass, which Norman himself played in the church, while for "out-a-door work" he performed on the serpent-an instrument of wood and leather which in this valley was considered like its namesake an unclean beast. The band and choir were installed in the western gallery, in front of which was suspended a rude and ancient painting of David playing on the harp. About 40 years ago this gallery was taken down and the band accommodated in a big square pew in the aisle-a transplantation which soon terminated its existence. From a musical standpoint it appears strange that no real tenor instruments were used in all these bands; at Abbotsbury, it is true, there was a "tenor viol" (viola), but it apparently played the alto part, and in another village a trombone was in use, but it supported the bass. It seems to have been the general practice to play the tenor part on a treble instrument an octave above the voicea relic probably of the old "plainsong" days.

Now as to the music played. I have had the opportunity of examining many of the old MS. tune books, and of these the largest and most complete is a Martinstown book, dated 1831 . In it the tunes are written in four-part score and often preluded by symphonies, mostly in three parts, for the instruments. The vocal solos are accompanied by the violoncello only. Here is a Te Deum by James Norman, son of John Norman, and many pieces by Samuel French, the Steepleton tailor. The tunes are set to Tate and Brady's version of the Psalms, and must have
been quite unfit for congregational singing, unless, as was probably the case, they were sung so frequently that they became thoroughly well known, for it is maliciously said that the famous Martinstown players were at last reduced to two tunes, vulgarly known as "thik" and "t'other," one or other of which had to do duty for all occasions. The violoncello book of John Chapman, the Steepleton shepherd, is interesting. It was transcribed in 1846 , and also contains little symphonies and interludes for the instrument. Among the titles of the tunes are "The Heavenly Harper" and "The African's Glory," and where the words are given the spelling is often at fault, though even "again we bough the nee" is intelligible. It is reported that at Steepleton there was a division of notes into "singular" and "plural," but the meaning of this distinction, known to the initiated, is now lost. A treble (and probably a clarinet) book gives us, amongst various Christmas carols and anthems, a composition by John Brown. This musician and carpenter, whose tunes were locally in great request, was choirmaster of S. Peter's Church, Dorchester, in the earlier part of the last century. He was evidently not ashamed of his productions, as it was his custom when giving out the number of the psalm, after the privilege of those days, to add "to a tune of my own composing," by which well-timed advertisement his fame spread mightily. In the church he divided his performances between playing the fiddle and singing bass, and in the latter capacity he was celebrated for the curious effects he produced by singing through his hands, which he used partly as resonators and partly as a primitive swell.

We hear nowadays strong complaints at times against the elaborate setting of the morning and evening canticles to "services." But the book of Thomas Richards, of Winterborne Abbas, commenced in 1795 and continued through the early years of the next century, shows that in that village church they had "sarvices" (sic) for the Jubilate, Magnificat, and Nunc Dimittis, while the Kyrie Elieson and also the opening Sentences were sung. It is to be noted, too, that in all these
books the special music is for Christmastide, the Easter and other church festivals being unnoticed and the harvest festival unknown.

On the payment of these church bands there is little to say. A collection was generally made once a year either in the church or from house to house. Oftentimes the players and singers were content with a good feast at Christmas, and in Thomas Chapman's book, dated 18 I 6 , we find "The Feastivall Song of the Winterbourn Choir "-a composition bristling with faults, but of much interest from its old associations, words and music being evidently of local production :-

> Friends and Brothers here we meet In music join divinely sweet, And this convivial board surround, Since we have walk'd our village round.
> After walking thro' the snow The lib'ral village this bestow.

Later in the entertainment this chivalrous trio appears to have been sung:-

> Here's a health to all good lasses, Pledge it merilly, fill your glasses. Let a Bumper toast go round. May they lieve a life of pleasure, Without mixture, without measure, For with them true joys are found.

In some cases the parish provided strings and bowhair when required, and such items as "Two strings for the Base Viol, 2s. 2d.," "Reparing 2 Base Bows, 2s. 6d.," are given in the churchwardens' accounts. The Winterborne band, when we knew it, was paid an annual sum by the rector with 5 s . for strings and reeds.

The rivalry which existed between these church bands greatly conduced to their efficiency and maintenance. Though the parishes of Steepleton and Winterborne Abbas are united under one rector for ecclesiastical purposes, each band kept to its own gallery. On one occasion, however, of particular interest to

myself, the Steepleton gallery, which had been deserted for several years, was occupied by the musicians from Winterborne. It was a wedding, and after the wedding was over an appropriate wedding march was naturally expected. Mendelssohn and Wagner being out of the question and Jackson's Te Deum hardly suitable, a martial hymn tune was the next best thing. Unfortunately, the leader's choice fell on Cooper's S. Alban, and, in spite of the festive variations with which the clarinet adorned the air, bride and bridegroom left the church to the suggestive strains of

Onward, Christian soldiers, Marching as to war!

Of the old musicians' galleries very few are now to be found in their original condition. A fine example, however, still remains in this neighbourhood, and will be seen in the Parish Church of Puddletown, or more artistically Pydelton, immortalized by Thomas Hardy in "Far from the Madding Crowd." Through the kindness of the Hon. Editor of the Club's "Proceedings" two illustrations of this handsome relic of bygone days accompany the present paper. The oak front, which is finely carved, bears the date 1635 , and at either end on small escutcheons are the following initials:-G. H. (How ?) and I. D., probably the names of the churchwardens of that year. The gallery is extended across the north aisle, and this part of the ancient structure was carefully restored in 1898 on the removal of a school children's gallery which had been erected at a later date in front of it. On the well-preserved central shield is cut the motto-HUC ADES NCN VIDERI SED AUDIRE ET PRECARI ("Hither thou comest, not to be looked at, but to listen and to pray"), and the small escutcheons at either end are carved with the initials W. S. (Stile ?) and F. E. F. (Freeman), the latter, which bears the name of the present vicar, replacing the original work destroyed by the later erection now removed. The large and ornamental shield immediately in front of the organ is not an integral part
of the gallery. As it displays the arms of England and France quarterly it is probably even more ancient and was found by a previous incumbent at Weymouth, having been taken, so it is said, from a broken-up ship. On the plaster of the west wall, but now hidden by the organ case, are painted the Royal Arms with the motto "Dieu et mon droit" and the date 1753. The old oak desks for the singers and players are much mutilated by the deeply cut initials of former occupiers, the earliest we observed being "I. Willis, April I, 1691" : notwithstanding the date, it is believed to be genuine.
A few notes on the music of this village will be of interest in connection with our subject. About the year 1840 the gallery boasted of the following musicians:-Two Clárinets (T. Arnold and J. Holland), a Flute (W. Brown), a Bassoon (S. Arnold), and two "Base Viols" (T. Toms and G. Sherren). Of their two "Bases" the villagers were naturally rather proud, as they also were of their "Counter-tenor," who died only a few years ago at over ninety years of age. In earlier times there was also a Serpent player, but it is not known whether the instrument was used in the church music or only in the "Town" Band, for the "true and original Weatherbury Band" is a venerable institution with a record of nearly two centuries. At one time it was menaced by a formidable rival, which adopted the pugnacious name of "The Scorpion Band" and consisted of a Clarinet, Cornopean, Trombone, and Bass Drum. The pièce de résistance was "The Downfall of Pares," which apparently sealed its own fate, though the local pronunciation, "pears," must have appealed more forcibly to the rustic mind than any misfortunes of la belle France.
Some of the old church service books are still in existence, and are in the possession of Mr. William Gover, who, as an enthusiastic musician as well as an amateur organ-builder and stringed-instrument maker, well maintains the fame of his village. To him I am indebted for many details of its past history. The books are bound in home-made vellum, and are inscribed "The Gift of Mrs. Price to the Choir of Piddletown,


After Practice.
The Singers' Gallery, puddletown Church.

Feb. 1, 1823.0 They are similar and quite equal to the large Martinstown book described above.

The old players, not without serious misgivings, vacated the gallery on the introduction of a barrel organ about the year 1845. The case of this instrument was made in the village, and still serves for the covering of the present small organ, which was placed in the church in 1852, when the internal works of its predecessor were sold to the churchwardens of Bere Regis. A new two-manual organ is now to be erected, though some of the old mellow pipes which have done duty for more than half-acentury are, I am glad to say, to be retained.
"So mote it be." Yet, notwithstanding the defects and deficiencies of the past, I am inclined to believe that, after all, the suppression of these bands as relics of a barbarous age and the introduction of organs, often far too large for our village churches, has not been an unmixed good. Reformation, no doubt, was needed, but not extinction, for the practice of these wind and stringed instruments gave occupation and recreation to the peasant folk; their performances brightened village life ; they added gaiety to the rustic wedding; they cheered the long Christmas evenings. But more than that. By this means those who had no vocal gifts took their part in the music of God's House, and with their quiet and unsustained accompaniment invited the people to support and swell the strain of praise.


## ©he $\mathfrak{E a n d s f i p , ~} \mathfrak{E v n t}$ Ziegis.

A Note.

By the Rev. H. SHAEN SOLLY, M.A.



INCE the visit of the Club to the landslip described in Vol. XXV., p. lxviii., Mr. H. B. Woodward has kindly lent me the block of the diagram given on p. 598 of his Geology of England and Wales; and this diagram, which was shown to the Members on the occasion of the visit, is here reproduced. A second diagram, given in Vol. I. of the Geological Survey Memoir of the Cretaceous Rocks, is also reproduced by the kind permission of Mr. Jukes-Browne; and, as this has been drawn by him to scale, it will materially help the reader to understand the interesting problems involved in the case. In 1840, immediately after the occurrence, a pamphlet by George Roberts was published by


Daniel Dunster, of Lyme Regis, entitled "An Account of and Guide to the Mighty Landslip of Dowlands and Bindon, near Lyme Regis, December 25 th, 1839 ." From this are reproduced a plan of the scene of the occurrence and a view of the chasm looking west.

These illustrations furnish an admirable record of what took place. The diagrams show the successive strata-the chalk on the surface, A ; then the chert beds, B ; and below them about 100 feet of greensand, C ; all resting on Lias and Rhætic beds of clay, D, which slope gently towards the sea. The rain falling on the surface would penetrate to the clay, thoroughly soak the basal portion of the sand, and carry away with it wherever it found an outlet a considerable amount of this loosened sand. Some rain also would soak into the same bed of sand where it crops out on the surface a little further inland, and would assist in the carrying forward of this sand, grain by grain. Thus the lowest layer of the sand would be reduced almost to the consistency of quicksand, and what has been aptly termed a "launch-way" would be produced, down which a huge portion of cliff, having an upper surface of 15 acres, slipped towards the sea. This is "the insulated portion of land" ( $\mathbf{z}$ ), well shown in the plan,


1. The Great Chasm,
2. The insulated portion of Land.
3. The eastern Basin or Harbour
4. The remains of the western Basin or Harbour.
5. The upheaved beach.
$f_{1}$. The Cottages.
6. The road from the summit by Doulande lime kila to the Coteges.-N. B. Ladies can only descend by this road, Gentlemen may descend at the wesern part, sfter having walked by the edge of the procipics through Dowlends and Bindom.
(G. Roberts.)
and its movement must have been the first to take place. Probably this began on the Saturday night, Christmas Eve, and was the movement which so considerately warned the labourers of what was still to come. The great founder is, no doubt, what took place on the following Monday. This was the subsidence, or vertical descent, of another great portion of cliff further

inland. Mr. Jukes-Browne's diagram and Mr. Roberts' view show this well, and indicate that the land did not merely fall into the chasm caused by the sliding away of the detached field, for in that case the chalk furthest from the sea would be highest, whereas it is lowest. What happened was like a person slipping and faliing backward, not tripping and falling forward. The lowest lavers of the greensand must have been so loosened (the autumn of 1839 was extremely wet) that they were quite unable to bear a heavy weight when the support of the detached field was removed. A second great slip, therefore, took place, and then the disintegration of the lower portion of the cliff will
account for the comparatively quiet settling down of the more compact upper strata.* Similar subsidences are not uncommon elsewhere along the coast, where the greensand is washed out at points where the water escapes. In 1825 part of the road between Charmouth and Lyme Regis sank thus from 8 to 20 feet. Similar settlements not far from the same spot are quite recent, and others are threatening.

But the above explanation does not adequately account for all the facts. It assumes that the changes took place on the top of the beds of clay, and Mr. JukesBrowne finds that a diagram drawn to scale proves that this was not the case, for the depth of the chasm would then have been much less than it is. His diagram, therefore, indicates that these beds of clay partook in the general disturbance. The cliff must have parted from top to bottom nearly down to sea-level, and what is termed the "launchway" must have been prepared not only in the sand but also in the underlying clay. No doubt this would be due to the enormous pressure of the superincumbent mass.

The last feature that requires explanation is the elevation of the beach and of a ridge in the sea. Mr. Roberts describes the

[^22]reef as three-quarters of a mile in length and from 300 to 500 feet in advance of the former high-water mark. To many visitors this upheaved beach was the most interesting of all the changes that had occurred, and it raised hopes of the formation of a much needed harbour. Its practical use was, however, confined to affording shelter to the boats which landed visitors to see the recent sights, and it was not long before the sea washed away all traces of any harbour. But the change for a time was remarkable. Land which before Christmas was io feet below sea-level was raised 40 feet above it, and behind this ridge there was a pool with a depth of 21 fest of water. The Rev. W. D. Conybeare accounted for the elevation of this ridge as a case of hydraulic pressure. He thought that the beds of loose sand, being reduced to the consistency of quicksand, would convey the pressure of the subsiding masses, which he estimated at $8,000,000$ tons, to the point of least resistance, where it would produce the burst upwards. This is a tempting theory, accounting so nicely for the going down in one place and the coming up in another, and Mr. Conybeare was a good geologist for his day. But Mr. Jukes-Browne, who has kindly revised this Note, assures me that the quicksand could not possibly have been sufficiently confined to have conveyed this hydraulic pressure. He ascribes the elevation of the ridge entirely to the thrust exercised by the detached field when it slipped forward towards the sea. It would ridge up in front of it the débris of many former smaller slips; and this action, which undoubtedly took place, he considers amply sufficient to account for all that occurred along the shore.


## Bxammsea drfand.

## By Charles van raalte, f.S.a.

 at one time it was visited by the Rumans is clear from pieces of pottery that we have discovered on this and neighbouring islands. It is mentioned in the story of Cerne Abbey, which, according to William of Malmesbury, was founded in the sixth century by St. Augustine, that no doubt the monks took possession of the island. Libaud mentions this in describing his travels in 1545 , and speaks of the "Chapelle for an Heremite." It was dedicated to St. Andrew, and what is now reclaimed land, surrounded by a seawall, was formerly known as St. Andrew's Bay.

In the early part of the eleventh century the Danish King Canute achieved his second invasion of this country, landing at Sandwich, whence he sailed round the coast to the mouth of the Frome, harrying and ravaging Dorset and Somerset. Libaud tells us that he destroyed the monastery of Cerne and carried the spoils to Brownsea, or, as he puts it, "Ad Branksiam, hoc est Brunci Insula," when he is said to have destroyed the chapel, for which Canute afterwards made some reparation. The name,
as far as I can trace it, is derived from Bruno, into whose possession it came in Danish times ("ea " Icelandic for Island), for in the reign of Edward the Confessor Bruno was Lord of the Manor of Studland, which includes Brownsea, and so it was often called Brunci Insula. From that, I imagine, came the name of Branksea, with which Brownsea has been interchanged from time immemorial. Henry the Second's great charter granted to the Abbot of Cerne the right to all wreck of the sea at "Brunkery," as he called it by way of a change, and in the third year of Edward the First a similar patent was granted, and confirmed by Henry the Eighth, before he dispossessed the religious orders.

It was to the Blue Beard King that we are indebted for the square tower, which was built as a blockhouse for the protection of Poole and its shipping. At that time the town of Poole agreed to appoint six men to watch and ward in it. In 1543 Henry, after destroying the monasteries, made a grant of it to John Vere, Earl of Oxford, who disposed of it to John Duke. The lower part of it was made of rubble, and in 1545 from an old document we find that it was repaired with chalk and stone, and also that a disbursement was re-made to Rychard Welsted for 8 Payre of Whelyse to Castell of Brownsea. Another document from the Poole Archives is an inventory of ordnance, shot, and gunpowder received towards the defence of the castle: "Received from Portsmouth roth August 1547 by the commandment of Lord Seymour, Admiral of England, one piece of iron named a Demi-Culverin with the sponge and ladle for same, and 50 shot of iron and two half barrels of gunpowder;" and there are many similar receipts in this and the following reigns.

In 1552 a commission was appointed to examine and report upon the state of the defences of the west coast, the members of which were Sir John Rogers, George De La Lynde, Richard Phelippe, and they reported, amongst other things, on Brownsea. They said "The square of the great tower 44 ft ., which amounteth to 176 ft ., and that after the rate of 15 ft . to the perch
maketh the number of in perches and inft., and must be made 1 ift. higher, which will amount to 49 perches, and must be made with free stone. The thickness of the wall of the same tower is $6 \frac{1}{2} \mathrm{ft}$., the barbican of the said tower is in compass r6oft., and must be made higher and that also with free stone. The thickness of the wall of the said barbican is 9 ft ., and therefore the S.W. side of the same which containeth in length 40 ft ., must rise higher by 13 ft . for that the hill being in the S.W. side, and also high above the said Barbican that no man shall be able to serve within it." The hill referred to is that on which the present battery stands, and would have become a grave danger to the defenders once in the hands of an enemy. These alterations were made at the cost of the town of Poole, and later on, finding that the up-keep became a strain upon their resources, they petitioned Queen Elizabeth to undertake the necessary work at the Government expense. This petition was graciously received and acted upon; but the town was called upon to watch and ward with six men as formerly. In these proceedings Brownsea Castle was styled "The Queen's Majestie's Castell at Brownecksea."

In 1573 the Island, then valued at 9s. per annum, passed into the possession of Gregory Sprint through right of his wife, who was Richard Duke's daughter, and eight years later it was alienated to Richard Haycalt and others, who immediately established copperas and alum works, which somehow came into the possession of the Earl of Huntington ; and we find Poole authorities much exercised at the wickedness of his agent, Mr. James Mountjoy. This worthy, they go on to say in their plant, had not been seen at church, "and he hath a brother, a very bad fellow of an odious rellgion, and persuadeth the men to work on the Sabbath Day." These works ceased at the end of the sixteenth century. In 1576 Her Majesty Queen Elizabeth granted the castle to Sir Christopher Hatton, together with Corfe Castle, and he was made Admiral of Purbeck.

There remains a record of a very interesting inventory of arms and machines of war handed over at this period. The
burgesses of Poole were not best pleased at this mark of royal favour to the dancing Chancellor, especially when he claimed the right to confiscate to himself the profits of the ferry between the haven points, which had previously been in the hands of the fishermen of the port. Hatton also claimed and exercised, among other powers, the permission to detain and examine all shipping entering and leaving the port, and this culminated in tragedy. In 1589 the barque Bountiful Gift was fired at from Brownsea for failing to comply with the Governor's regulations, and the captain and one man were killed. This captain, Walter Partridge, was buried in Poole, and a description of the affair may be found in St. James's parish register.

In 1572 Hatton granted a 21 years' lease to John Engleby of all the woods, excepting Alum Cheyne and Cheyne Silver, and two years later he granted a superior lease of the whole Island, excepting the castle, to John Morly. From John Morly it passed into the possession of Charies Brooks, from whom in 1611 it went to Robert Cecil, first Earl of Salisbury. Early in the Civil War Parliament caused Brownsea Castle to be strongly fortified, and in 1644 an order from the House of Commons was issued for delivery from the Isle of Wight of four pieces of ordnance and chests of "musquets" from Weymouth. On April 29th, 1647, an order was made for the sum of $£ 60$ to be remitted to Captain Hardyng, commandant of the castle, for the payment of the men constituting the Brownsea garrison.

No doubt these worthies gave a good account of themselves, as, with the exception of Lyme, Poole was the only town in Dorsetshire able successfully to resist the attacks of the Royalists; and it was ordered in June of the same year that Brownsea Castle should be under the command of the Governor of Poole, Captain Skutt. In the reign of Charles the Second the Lord of Brownsea was Sir Robert Clayton, a London citizen, a scrivener of great fortune. Sir Robert was Lord Mayor of London in 1679, and was three times elected as Member of Parliament for the City and once for Bletchingley, where he had a goodly estate. During this reign Brownsea suffered again
from its old malady of neglect. The State, careless of its defences, and Poole, offended at the continued disregard of its protestations to Whitehall, refused any longer to provide men to watch and ward the island fortress, and so from that time Brownsea Castle, as a defence, became useless.

It is doubtful if Sir Robert ever occupied the castle, and it seems more probable that he built for himself, or inhabited at any rate, the old-time wrecked dwelling-house mentioned by Hutchins, a remnant of which remains in the brick columns near the present dairy.

Charles the Second, owing to the plague, fled from London in 1663 with his Court, and his visit to Brownsea Island was doubtless due to that fact. "His Majesty took an exact view of the said Island, Castle Bay, and Harbour to his great contentment." So says the record. Sir Robert Clayton re-opened the copperas works, which were finally closed in 1704.

The next proprietor of Brownsea was " Mr. Auditor Benson," who bought it in 1.772 for the not too extravagant sum of $£ 300$. Mr. Benson re-placed Sir Christopher Wren as first surveyor of works. When he bought the Island he also took possession of the castle, about which nothing had been said in the negotiation, and began to alter it into a residence for himself. At this the Poole burgesses interfered with objections that it was a national defence and Crown property, and that they were its legitimate custodians. He, in reply, asserted that he had bought the Island and everything upon it, which of necessity included the castle. The Poole Municipality then appealed to King George the Second, probably in 1720 , and we next hear of the business in 1723, when Mr. Benson and his counsel appeared before the Attorney-General, Poole being represented by Messrs. Bond and Trenchard. The proceedings were adjourned for further consideration, and were never resumed, but why they were dropped is a mystery. Probably Mr. Benson procured a grant of the castle from the Crown. Mr. Benson did a great deal of the work on the castle, and built the great hall, where is now the music-room. He also brought the Island into a better state of
cultivation, and planted it lavishly with various kinds of trees. He was an enthusiastic botanist, and made a collection of the many specimens of plants on the Island.
The next owner of Brownsea was a Mr. Chamberlayne, who re-sold it in 1762 to Sir Gerard Napier Sturt and Mrs. Humphrey Sturt, of Crichel. On the death of Sir Gerard the estate passed to Mrs. Humphrey Sturt, who made it a labour of love to improve it. He originated the ornamental garden near the castle and planted trees in enormous profusion over the Island. He is said to have spent not less than $£ 50,000$ on these works. At this time there were only two occupied buldings on the Island besides the castle and inn, and a house rented by the Government for preventable purposes, which would probably have been on the site of the present villino. Mr. Sturt sat in Parliament for Dorset from 1754 to 1786 , when he died. The property went to his second son, Charles, who so loved the Island that he made it his permanent residence. Charles Sturt represented Bridport in Parliament from 1784 to 1802, and was succeeded by his only son, Charles, who in 1817 sold Brownsea to Sir Charles Chad, of Pinkery Hall, Norfolk. Sir Charles, like his predecessors, expended considerable sums in additions and improvements to the castle and grounds, among which was a pheasantry, a keeper's cottage, and the pretty cottage called Seymour's on the north side, facing and overlooking Poole.
In 1818 Prince George, afterwards George the Fourth, paid a visit of some duration as a guest of Sir Charles Chad, and was received with a royal salute from the castle guns. He expressed his pleasure to his host, and said he had no idea there was such a delightful spot in the kingdom. The next owner was Sir Augustus Foster, by whom it was bought in 1840 . He died in 1848.
Colonel Waugh bought it in $185^{2}$ partly on account of its clay deposits, and proceeded to develop its resources on a lavish scale. He restored the castle and added the stone front on the south and east sides. He also reclaimed about 100 acres of the foreshore, and built an embankment and sea wall around it. He
established a pottery on the west end of the island, and crected about 30 cottages near by. The pretty little village of Maryland, consisting of about 20 cottages, still exists, though the pottery and clay pits have been abandoned. Colonel Waugh also erected St. Mary's Church and endowed it. It is built in the Gothic style, partly roofed and panelled with beautiful oak taken from Richard the Second's Council Chamber in Crosby Hall. Colonel Waugh, owing to financial troubles, was obliged to relinquish his interest in the island, and it was sold by the Court of Chancery to a Mr. Faulkner, who continued the potteries, in which he was not, however, successful, and the island passed into the hands of the Right Hon. George Augustus Frederick Cavendish Bentinck, in whose possession it remained until his death in 1892. Mr. Bentinck again restored the castle, and many of the interesting Italian works of art that adorn the island and church are remnants of his excellent antiquarian knowledge and taste. Mr. Bentinck and his wife are buried in the churchyard, and a most beautiful Italian well-head marks their resting place. This monument, which is of great antiquarian value, has upon it the crest of the Leze family. It came from Calnaria to Ravenna and thence to Venice in $\mathbf{1 2 9 7 .}$

Among other beautiful objects that remain to mark Mr. Bentinck's reign are the two lovely marble figures used as lecterns in the church. These winged angels were formerly part of an altar in the church of St. Lucihia of Venice, built by the famous architect Palladio, and taken down many years ago to make room for the railway station. In the drawing room of the castle also may be seen the very beautiful 16th century marble mantelpiece. Major Kenneth Balfour purchased the island in 1892, and in 1896 occurred the disastrous fire, which completely gutted the interior of the building. Major Balfour rebuilt the castle in 1897 , and at the end of 1900 it came into the possession of the present owner. The island is elliptical in shape, rising from the shore to a height in places of 90 ft . These hills, that nearly encircle it again, slope down to the central valley, in which are two ornamental lakes, supplied by springs,
and the kitchen gardens and vineries. At one spot near the lakes is a grassy slope leading to a cottage and known as Venetia Park, where palms, orange and lemon trees, and tropical plants flourish. All through the island the slopes are covered with rhododendrons, juniper, Scotch firs, insigniis, macrocarpa, Corsican pines, and many other varieties of evergreens, plentifully mingled with cedars and deciduous forest trees. Wild fowl in great variety visit the Island, and the low-lying land within the sea-wall is the favourite haunt of many seabirds; and several varieties of plover, the redshank, greenshank, sandpiper, and snipe may be found there. The cross-bill comes very often, and the green woodpecker's cry is quite familiar. But perhaps the most beautiful little winged creature that favours us is the kingfisher.

I fear that I have perhaps transgressed as regards taking up too much time in reading the paper, but my attachment to the subject of my theme must be my excuse.



## Gonte $\mathfrak{B l i f t o n}$ Anfiquifies.

## By Rev. HERBERT PENTIN, M.A., F.S.A. (Ed.).

"The Ruins" in Milton Abbey Park.
 distance across the Park, can be seen a picturesque ivy-covered, dilapidated building known as "The Ruins."

These "ruins" were erected by Joseph, Lord Milton, about the year 1790 , and were built up of materials (chiefly stone, with some brick), obtained from the destruction of the Old Town in 1786 (see Proceedings, Vol. $X X V ., p .1)$. There are also a few carved stone fragments from the Abbey, which probably came out of the church at Wyatt's "restoration" in 1789.

Lord Milton's object in erecting "the ruins" was to make the landscape more interesting. His tree-planting promised to be a great success; but his endeavour to convert "the Abbot's Pond" into a large lake in front of his mansion had failed. And so a ruin in the valley, with the well-wooded hills rising above, was his alternative picture.

The plan of "the ruins" is supposed to have been suggested to his Lordship by some foreign genuine ruins known as "La

Therese." There is a sketch in the parish of the Milton "ruins," made about eighty years ago, and underneath are the words "La Therese."
"The Ruins" suggest a cruciform shape; but are, of course, incomplete. There is no roof. The chancel is the most complete portion of the building. Its width is 23 feet, and its length almost the same. It contains two north and two south window-arches (one of which has recently fallen down) and a large east window-arch. There are no mullions or glass, and all the window-arches are what may be called (for want of a better term) "Imitation Pointed." Those on either side of the chancel are separated by an "Imitation Pointed" door-arch, without any capitals or doors. Just outside the south door-arch


Exterior of "The Ruins," Milton Abbey Park.
a large yew-tree is growing, and the ivy, which was planted inside the chancel, has largely covered the interior walls, crept through the windows, and makes a brave show on the exterior walls. In the south-east corner of the chancel a carved stone
pedestal for the statue of a saint projects from the wall, and about five feet higher there is a carved stone canopy also projecting. These 15 th century fragments almost certainly came from the Abbey Church, also "the string-course" of the same period on either side of the south door-arch. Underneath the pedestal, lying on the grassy ground, are two carved stone fragments bearing a shield containing the arms, considerably dilapidated, of Lord Milton (Damer impaling Sackville). There are other loose stones lying about both inside and outside the building.

The north transept is 14 feet long and 13 feet wide (with a large yew-tree growing in the centre). It has no north end. It contains an "Imitation Pointed" window-arch on the east and west sides. Half of that on the west side has fallen down. There is no south transept.


The nave is suggested on the north side only by a wall five feet long and an additional five feet of foundation laid. There is no sign of a wall on the south side.

The exterior of the east end of "The Ruins" is naturally the most imposing portion of the building, as that was the part which was chiefly intended to be seen. It is built higher than any other portion, and on either side of the east window-arch is a lofty octagonal pinnacle, with a large and curious "cross" deeply incised (incised, apparently, when "the ruins" were erected). It might be described:-Between two batons, as many taus, base to base, all palewise. The stone cross on the highest central point of the façade has tumbled down, and underneath the embattled work is a pierced trefoil above the window-arch. The north pinnacle has a stone Latin cross on its summit; the top portion of the southern pinnacle is broken off.
"The Ruins" have considerably fallen to pieces since they were erected, and the ivy has become so masterful that the picturesque little building, amid the luxurious foliage around, is scarcely ever noticed at a distance by those who do not know of its existence.

May it, however, long stand as one of the monuments of that remarkable man who, though he destroyed a town, erected a ruin!

## Monastic Burial Relics at Milton Abbey.

During Sir Gilbert Scott's restoration of the Abbey Church, about 40 years ago, two graves were laid bare.

The first grave, at the foot of the High Altar, contained the skeleton of an Abbot, with six pieces of a wooden pastoral staff and its crook (almost circular) and some other small fragments of wood; also several pieces of sandals and an iron buckle of a girdle. The length of the six pieces of staff is 23 inches, and the diameter of the crook is 2 inches. The widest part of the sole of the sandals is $2 \frac{1}{4}$ inches.

In the other grave, to the west of the Abbot's, was a skeleton of one who had been in priest's orders, with a chalice and paten of secondary metal. The bowl of the chalice is 4 inches in diameter, and its height (measured from the inside) is I inch.


The Burial Chalice and Paten.

The stalk, which has a plain flat pomel in the centre, is about $\mathrm{I}_{\frac{1}{2}}$ inches long, and the foot (partly broken) measures about 3 inches in diameter. The paten originally was almost flat, but it is now somewhat battered. It is very slightly sunken in the centre, and has two thin incised lines running round the rim. The diameter of the paten is $4 \frac{1}{2}$ inches. Neither paten nor chalice has any maker's marks thereon, but they are probably of the 14th century.

Although these burial relics were discovered 40 years ago, the photograph reproduced is the first which has ever been taken.

## The Rebus of Abbot Middleton.

On the north wall of the south aisle of the Abbey Church, not far from the present vestry, the rebus of Abbot William de Middleton occurs over a 15 th century niche for a statue, of which the carved canopy and mouldings have been cut off level with the wall. The rebus consists of the letter W with pastoral
staff, a windmill on a cask-a mill on a tun, i.e., Milton-the name Middleton probably being pronounced Milton. The date is 1514 , the 4 being represented by half an eight. The rebus


The Militon Rebus.
also occurs in the Great Hall and on the stone porch of the Abbey House, in "the Abbot's Oriel," on a gateway at Delcombe Manor, and on the vaulting of the transepts and "crossing" of the Abbey Church. The life of Abbot Middleton is written in my little book on Milton Abbey and its School.

## Mediefal Tiling.

The encaustic tiles which form the chancel floor of S . Catherine's Chapel were removed from the Abbey Church in the year 1865. Some of these mediæval tiles are heraldic and contain the Arms of the See of Exeter (the cross keys and sword), the Earls of Cornwall, Gloucester, and Hertford, and others (three lions passant, a shield vaire, another checquée, three swans, a cross between four lions rampant within a bordure engrailed). A tile, manufactured at Malvern, has an inscription and date 1456. Besides these there are two knights on horseback (one with a spear, the other with a sword), a stag and hound, a dog in front of a tree, two birds, a star with six points,
and other more ordinary patterns. Some loose fragments of similar tiling are preserved in the south transept of the Abbey Church.


By permission from "The Builder."]

The Panel Paintings.

On the east side of the Rood Loft of Milton Abbey are two crude oil paintings, presumably of the 15 th century, which represent Athelstan, the founder of Milton, and a queen.

The king, in royal apparel, is handing over bodily to the kneeling Head of the Monastery a church of considerabie size having an oblong ground pian with three spires. The 13 th century seal of the Abbey also credits the church at Milton with three spires; but these disappeared in 1309 when the building was struck by lightning.

The queen holds a pair of white gloves in her right hand, and on her left hand is a hawk or falcon (?) of many colours, tearing the wing and claw of a bird. At her feet is an animal which it would be difficult to name. The queen cannot represent Athelstan's wife, as he was never married. Professor Freeman states that " no trace of his queen exists in any charter, grant, or document, such as attest the existence of illustrious persons in the Middle Ages." Perhaps the painting represents Athelstan's mother Egwynna, "femina illustris"; as according to the Register of Milton she is buried in the Abbey Church. ("At Milton, Athelstan founded a Monastery and Collegiate Church: to this safe and holy spot he brought the mortal remains of his mother, and laid them in the holy ground."Bishop Browne, of Bristol.) On the other hand, doubts have been cast upon Athelstan's legitimacy. In some histories, but not the earliest, his mother is regarded as the concubine and not the queen of Edward the Elder.


King Athelstan.


Queen Egwynna. (\%)

The oak panels are 3 feet 3 inches long, and 1 foot 81 inches broad. The paintings are in good condition, and the colours are as bright as if painted recently.
For particulars of the Incised Abbatial Slab at Milton Abbey, and the Indulgence Inscription at S . Catherine's Chapel, see Prcceedings, Vol. XXV., p. 187, 191.



## Ehe Ehatch zhelf of פorsef.

The labours of our friends having resulted in the completion of the record of inscriptions on the Dorset bells, some attempt at classification must be made. The earliest bells are generally without inscription, mark, or ornament. The converse, however, does not hold good, as uninscribed bells, especially smaller ones, were made quite in later times. Of some twenty-five bells in Dorset which are of this unadorned type, and presumably of older date, the smaller of the two which hang in the double cote at Stock Gaylard is most notable. Long and narrow it is, the diameter only II inches, whereas the height is $12 \frac{1}{2}$ inches, the former being thus only 88 of the latter. The dimensions of the mediæval tenor at Nether Cerne give rather more than $1 \cdot 28$, and at Powerstock and Silton the diameters of tenors mount to nearly one and a-half of the heights. These instances have been taken at random. The dates of the two bells are $177^{2}$ and 1702 respectively.
We are in the misty land of conjecture, and the presentation of new problems, rather than the solution of old ones, is our lot as we examine the large group in Longobardic lettering.

Comparing Dorset with other counties, there are three points to be remarked with regard to these bells-the variety in the crosses, stops and lettering, the frequent appearance of graceful and elegant decoration, and the late survival of the lettering. Everywhere, indeed, it exists for a while side by side with its successor, the black letter, the same foundry stamps standing in line with either type; but here the later form seems to have supplanted its predecessor by unusually slow degrees.

Simplicity of lettering and ornamentation gives a hint, but only a hint, of comparative antiquity. Thus, Alton Pancras third, with its plain cross and lettering, seems to demand early notice, but we cannot identify either in other counties. But this is not the case with the Osmington treble and the smaller bell at Milton Abbas. In this pair under the initial cross is R (Fig. 55), which appears in a similar position on five Sussex
bells, two of them being at Washington, two at Beeding, and one at Yapton. All bear simple dedications-S. Michael, the Virgin Mary, S. Katherine, and S. Margaret. The last takes the form of the Salutation, which brings it near the Osmington S. Gabriel. At Appledram, in the same county, are two bells with the same lettering, but with P. W. under the cross, and these initials are also on the second bell at Stowting, Kent. It may be that they indicate the name of the successor to R, whom Stahlschmidt * was inclined to identify with John de Romenaye or William de Raughton, Metropolitan founders. But the R is probably the initial of the founder's Christian name, and the blundered
 founder than to monastic operations, such as we sometimes find elsewhere.

The larger bell at Stock Gaylard and the bell at Wraxall have the same lettering. The former presents a strange contrast in shape to its fellow just mentioned, the diameter being fourthirds of the height. The A's are all placed sideways, The reference to Wraxall should be 83 , not 82. As Thomas Hey "makede" the latter, no doubt he also " makede" the former. The verb is a delightful survival, just as we read in an Old English Homily not earlier than the thirteenth century, that "makede Moyses" the sour water of Egypt to be sweet to the folk of Israel. $\dagger$ This lettering is not identical with those on the Haselbury Bryan second (Fig. 34) or third (Fig. 35). The latter has moderately floriated letters, and the initial cross has a crowned P at its foot. Tarrant Keynston seems to have unique lettering, with signs of taste.

Thus gradually ornament makes its way in the foundry, and we chronicle some with crowned capitals, of which one seems unique-the bell in Bingham's Melcombe tower-inscribed O BG円たЯ ఠРIRIढЯS, with a cross much expanded at the ends, engraved No. 21. I can find its counterpart nowhere, and

[^23]must leave it, remarking the elegance of the lettering. Letters of unusual form in the inscription 4 SAßGбЯ : MAPIA: ORA : PPO : ROBIS, formerly on the Haselbury Bryan tenor, fortunately, have been preserved. They are engraved (No. 36), and, as I cannot find them as yet either in the west or in more distant counties, I can only look wistfully to Hampshire or Wiltshire for enlightenment in this dilemma, as well as in the case of the Nether Cerne tenor.

On the strength of the inscription on the tenor at Wimborne Minster one fine bell at any rate may be assigned to Dorset in the Plantagenet period. When Anthony Bond in 1629 recast this grand tenor, placing on it his monogram, the inscription, which still remains, was "MR WILHEMVS LORINGE ME PRIMO FECIT IN HONOREM STÆ CVTBERGÆ RENOVABAR SVMPTV PAROCHIALI PER $B$ ANNO DOMINI 1629," and after the names of the Churchwardens, and initials, probably those of the three priests of the Minster, is a shield bearing a chevron and three mullets. It is remarkable that this bell appears to have been cast with a flat crown. Mr. William Loringe was one of the Canons of Wimborne Minster in the early part of the reign of Richard II. The care of the parish authorities in the reign of Charles I. preserved the name of the foundress of the Nunnery, the sister of Ina King of Wessex, married to and divorced from Osred King of Northumbria, Saint Cuthberga.

Little Bredy fifth and East Morden fourth have the same initial cross (43A), which appears to be No. 66 in Ellacombe's, Somerset; but I have not succeeded in finding its location in the list of inscriptions in that county. The cross (81a) at Caundle Stourton was probably engraved from an inferior cast of the same cross, and possibly Maiden Newton fifth (43A) is another case. These have a certain affinity which connects them with the treble at Chittern, Wiltshire, the only bell as yet discovered which bears the name of John Barbur, doubtless the John Barbor, of Salisbury, whose will has been most kindly placed in our hands by Dr. Amherst D. Tyssen, the veteran
campanologist，and author of The Church Bells of Sussex．This important document will be printed at length by the Wiltshire Society，and it suffices to give a few points in the last testament of this Brasier，citizen of Franc Sarum．After a beautiful exordium，in which he says that＂nichil morte certius and nichil incertius，＂he directs that his body be buried in the Church of S．Edmund，in Nordhile，and leaves many legacies in monev and chattells－a pair of＂biluwes＂and the weight of 200 （ 1 b. ？） of olle cenere to John Peccham，to Humphrey，the founder，ios． worth of the same，to Peter Brasier（perhaps the P of whom we are in search）his gear and his best gown．The local detail is of great interest to the good folk of Salisbury，especially fifty＂paria de blanketts＂to the bedridden and sixty＂paria socularum＂ to tramps（vagrantibus）in the city．The probate of this will was made on August 27th， 1403.

The hexameters from the hymn to S．Christopher and the English rhyme to S．Katherine，found on the third and fourth bells at Shapwick，were given on p．106，as well as in the list of inscriptions．

That the two have the same origin is rendered probable by a connecting link at Little Hormead，to be mentioned directly．I cannot identify the stops，which seem to belong to S．Katherine． Possibly a guild of S．Katherine may be discovered at Bristol or Salisbury．

The wheel，appropriately placed on the S．Katherine＇s bell，is No．96，engraved on p． 204 and on p． 7 （Fig．8）of North and Stahlschmidt＇s Church Bells of Hertfordshire，from Little Hormead second，which bears a cross not engraved before（Fig．7），and a dedication to S．Margaret in the small elegant letters on Shapwick third．The fifth at Deophan，Norfolk，has the same wheel stop，except at the rhyme，where it is supplanted by a larger one of the same type．The inscription is（in apparently different type）

サ DØLGIS．SISढO．MGLIS＊GAM巴ЯRA．ひOGOP． PARGELIS

Here the initial cross is formed by very rectilineal fleur-de-lis. The fourth at Wissett, Suffolk (UIPGO. MARIF), has the Shapwick fourth lettering and stop, but the initial cross is Glouc. 10. Surlingham third (Norfolk) resembles Deopham, not Shapwick, in lettering, and has the Deopham rhyme stop for an ordinary word stop. The inscription is UIPGIRIS. GGPGGIE. UOGOR. GЯM巴ARF MAPIG. The bell at East Ham, Essex, without initial cross, and with a stop unknown to me, has the Shapwick fourth letter.

Among the later Longobards is the Broadwinsor tenor, which introduces us by its foundry stamp (52A) to Robert Norton, of Exeter. His inscriptions are generally in black letter, and are found in Somerset and Devon, each of which counties contains several of his bells. He seems to have been succeeded by a man whose initials were $\mathfrak{i} \mathbf{t}$, placed like Norton's on each side of a bell in the stamp. We were inclined to assign to this foundry the large group of bells bearing the cross 26 A ; but the locality of that cross seems to indicate a more eastward position, probably Salisbury.

We obtain a glimpse, not a very pleasant one, of Norton in the reign of Henry VI., for Ellacombe * quotes the record of his dishonest dealing from a Chancery Roll, c. 1432, when the " pore parishenés of Plymptre in Devenshere meekly besought John Stafford, Bishop of Bath and Wells, Lord Chancellor, that where as they by John Forde one of the same parisshe, bought of one Robert Norton of Exeter, Bellemaker, iij Bellys to paye for evry $c^{\text {li }}$ of the wight of the metal ther of xxvij ${ }^{8}$ there the sayd John and Robert by ontrewe ymagynacion coneyn and desseit enformyd the said paryshenes that the said bellys were of the wight of ij mill. ccc ${ }_{\text {iiij }}^{\text {xx }}$ ij li. wher as in dede thay weyyd but xviij ${ }^{\mathrm{lj}}$ " \&c.

Reverting to 26A, it certainly occurs with Exeter lettering, but Mr . Walters points out that a curious double-cusped cross

[^24](Glouc. 63) used by Norton is also used by Robert Handley, of Gloucester. We cannot unravel this knot.

We need be in no doubt about Bristol when we consider the largest of the three bells at Langton Matravers, bearing the Ship stamp (90A), the main charge in the arms of that city from ancient days. Mr. Walters has collected some 25 examples from Devonshire, Dorset, Gloucestershire, Brecknockshire, Wiltshire, and Somerset. The last county alone contains seven of them. The crown (90D) appears on several of these bells. Sometimes a smaller one (Somerset $\mathbf{4}^{2}$ ) is used. The Langton Matravers inscription does not indicate erudition in the craftsman. $\mathcal{F}$ is left in SAßGढG. 几ORAS appears unknown to hagiology, and $\Theta$ is split from $P \mathcal{F}$ by what is meant for an initial cross. This type of bell seems to belong to the last days of the Longobards, for the diameter and height are 33 inches and 24 respectively, the former ${ }^{\circ} 375$ of the latter.

Among the London founders of the black letter period we mentioned Henry Jurden (p. III). The two smaller bells at Chetnole are by him. The melancholy history of his son Dan Henry may be read in my Church Bells of Suffolk, and much later information about the Metropolis and its craftsmen is in Mr. Cocks's Church Bells of Buckinghamshire.

The presence of the Norwich bells at Ford Abbey, in Thorncombe Parish, is still quite a mystery.

There is little enough to record during the first half of Elizabeth's reign. The bell at Hook is dated 1563 , and bears eight letters, which may be the initials of four benefactors. Ryme Intrinsica second and third are seven years later, with initials N.D., not those of any known founder; but the other contemporaneous bell, the larger one at Milton Abbas, enables us to hazard a guess, the inscription being A DN ${ }_{1576 .}$ As the figures are placed backwards at Ryme, ND may be taken for DN. To this small contribution the doings of the end of the sixteenth century stand in strong contrast. The star of John Wallis, of Salisbury, rises at Buckland Newton (pardon the mixed metaphor!) in 1581, very soon after the beginning of his
work. We know him as at Handley in 1584, though the bell has been recast, at S. Margaret Marsh in 1586, at Caundle Stourton in 1588, at East Lulworth and Tarrant Crawford in 1589, at Iwerne Courtney (Shroton) in 1590 , at Osmington in 1593 , at Bincombe, Swanage, Stourpaine (old third), and Owermoigne in 1594, at West Stafford, Fifehead Magdalen, and Fifehead Neville in 1595, at Alton Pancras in 1596, at Shaftesbury in 1597, at Affpuddle and Marnhull in 1598, at Piddletown in 1599 , and there are many more with his initials as far down as 1636 , which length of period suggests that there may have been two founders of the same name, perhaps father and son. Great as his business was, he had not a complete monopoly. At Manston the third, dated 1598 , bears the initials R.B., which may be those of the well-known Richard Bowler, of Colchester, predecessor of the great Miles Graye. At Lillington we find a 1590 bell with the initials W. W.

Three others remain for identification-Nether Compton fourth, 1585 , with Longobardic lettering, also Thornford second and Yetminster second, marked Anno Domini i593 and Anno Domini ${ }^{5} 595$.

Contemporaneous with Wallis in his later days was another founder, whom Lukis places at Salisbury-John Danton, with whose initials R.T. are often associated. We find him at Chaldon Herring, Arne, and Tarrant Monkton in 1625 ; in the next year at Spettisbury, Winterborne Stickland, and Hilton ; at Shillingstone in 1634 and at Handley in 1636. The location plainly points in the direction of Salisbury, and the accounts of S. Thomas's parish in that city for 1630 contain an agreement with him. The Purdue family now claims attention. The first bellfounder of the name on record is George, who seems to have been born c. 1580, and who in 1613 is described as of Taunton in the churchwardens' accounts at Nettlecombe, Somerset. His earliest bell in Dorset is Fordington tenor, 1602. Very likely C. P. on the old tenor at Studland (1605) is a mistake for G. P. He will be found at Compton Valence, Stratton, Halstock, Upwey, Burton Bradstock, and Chardstock.

Here on the fourth bell his name appears in full-GEORGE PVRDY. Three of his sons, William, Roger, and Thomas, followed their father's calling. William's initials first appear at Holwell, 1604, which seems a very early date for him, then at Hinton S. Mary, 1614 ; at Burton Bradstock and Rampisham, 1615; and at Chaldon Herring in 1618. 'Then, arter a break of more than twenty years, W. P. turns up at Winterborne Zelstone, 1640, and finally at Shaftesbury Holy Trinity, Fontmell, and Ibberton in 1641. The range from these earlier bells to 1673 , the date on the stone to the memory of William Purdue in Limerick Cathedral, is apparently too long for one craftsman, though just possible, but the inscription

## HERE A BELLFOUNDER, HONEST AND TRUE UNTIL THE RESURRECTION LIES PURDUE

clearly identifies him with the Salisbury family, for at Closworth, Somerset, lies Thomas, the third brother, who died in 1711 , aged 90 years, under a slab inscribed :-

## HERE LIES A BELL FOUNDER, HONEST \& TRUE TILL YE RESURRECTION, NAMED PURDUE

The connection of the family with Salisbury is of very old standing. A bequest of John Purdye, no new thing, is recorded in 1562-1563,* $\dagger$ and cur William was employed at S. Edmund's in 1656 and at S. Thomas's in $1661 . \ddagger$

From Roger, the second brother, described as "of the cyttie of Bristoll, bell founder" in records at Wells, § came Stratton fourth and Caundle Bishop's third in 1627, Piddlehinton tenor and the bell said to have been once at Radipole, now in the Old

[^25]Town Hall, Weymouth, in 1633, Hilton third in 1637, and Manston treble in 1639. I dare not attribute the 1603 Whitchurch Canonicorum bells to him, in spite of initials.

Of Thomas, the third brother, we shall speak in his period. Loders third, 1641, and Chardstock third, 1649 , are pretty sure to be Thomas Pennington's, who cast the tenor at the latter place in 1626, when he was also busy at Trent, Somerset. Ellacombe says that Thomas and John Pennington "lived at Lezant and Stoke Climsland," and were itinerant founders,* but in another place he calls them " of Exon." $\dagger$

I think that the historic bell, now recast, from which I copied in 1852 in Child Okeford tower the inscription

## ĐOD BLESS THE KIND DHAYLS. 1648 IE WM Td

is doubtless Thomas Pennington's. It is worth enquiring who I. E. and W. M. were.

> "To see in what estate they live And nothing to the poore they give"
is an indication of the ever-painful social problem just before the Parliamentary war. We get it at Preston, 1629, and Abbotsbury, 1636. Some local magnate is the butt, as it would seem.

The date suggests Anthony Bond, a founder about whom information is earnestly desired. Four bells of his remain in Dorset, all closely connected in locality and time-Wimborne Minster tenor, 1629 ; Steeple second and third, 1633 and 1634; and Coombe Keynes second, 1636. Mr. R. C. Hope, $\ddagger$ probably following Lukis, § speaks of him as found in Norfolk and Suffolk; but East Anglia knows him not. The mistake probably arose from the ${ }_{W}^{\&} \mathrm{~B}$ mark from Norwich, before we knew

[^26]the importance of Alice, the wife of William Brend, bell founder; of Norwich, at the same time. Some day it may come to pass that Wimborne Minster records may reveal the man, who could have had no mean reputation to have been entrusted with the recasting of their tenor, the Cuthberga bell, made by Mr. Wilhemus Loringe, one of the canons of the church, in the eighth year of King Richard II. Hutchins* notes its "repair" with the Morrow Mass bell and a bell in the spire in 1534.

At Puncknowle the initials R. N. are somewhat distracting. On the treble and tenor (1682) they stand for the squire, and perhaps for his progenitor in 1629 on the third, though they may denote the founder. The verse

> " He that will purchase honors gayne Mvst ancient lathers still ma (yntagne)"
presents us with a word which I cannot find in Dialect Glossaries. Perhaps " lathers" may be allied to "lath," used elsewhere for a county sub-division, and mean local customs.

We find the Commonwealth days not altogether destitute of bell casting. The parallelism in time of Thomas Purdue and Thomas Pennington prevents me from dogmatizing on the initials T. P. The poetic gift, however, shows itself, as may be seen by reference to Bere Regis, Shaftesbury S. Peter's, and Sherborne fire bell, and most conspicuously might it have been seen on the old tenor (dated 1658) at Okeford Fitzpaine :-

> "I often have been beate and bandge My friends reioyce to see me handge: And when my friends doe chance to die Then I for them aloud will cry."

Not long ago, in conversation with a friend, I was asked for an interpretation of



[^27]which is on the Ford Abbey bell. I replied that the duties of a bell were unpleasant, chiefly to be knocked about, and that the bell prayed S. Margaret to make these duties pleasant. The parallel of the Okeford Fitzpaine inscription at once occurred to me.

The later T. P. bells must be Purdue's, and those bearing poetry link themselves to him by the old Sherborne tenor, recast by him in 1670 , inscribed :-

> "By Wolsey's gift I measure time for all To mirth : to grieffe : to Church I serve to call.'

John Toesser, whose year in Dorset was 1684, when he was at work for Lytchett Matravers and Winterborne Zelstone, describes himself as "son of C. T." As Clement Tosiear appears in the same business soon afterwards, there comes an inference that John's father's name was also Clement. Towards the end of the reign of George I. comes William. This family belongs to Salisbury.

Dorset may have some earlier bells from Reading, or even from its predecessor, Wokingham.

We are on sure ground, however, with Samuel Knight, who in 1686 "Fee Set" two belis for Wimborne Minster. Of these the larger seems to be a recast, as he speaks of the former as " added to $y^{e}$ five." Mr. Cocks* notes his earliest known bell as dated 1684 at Stanford Dingley, Berks, and considers the Wimborne pair as probably cast by T. B., possibly an earlier Bilbie, whose initials they bear, for Samuel Knight. From the same source we read of Samuel's migration in the latter years of Queen Anne's reign from Reading to S. Andrew's, Holborn, where he died in 1739.

William Knight, whoever he may be, looks, from his surname, to have some connection with Reading. There are more William Knights than one, bell founders, there in earlier days.

[^28]His works remain at Mappowder, 1735; Hampreston, 1738; Canford, 1739 ; Stoke Abbot, 1755 ; and the old bells at Studland were his make.

Another William, surnamed Cockey, of Frome, is found in a knot of neighbouring churches-Gillingham, Shaftesbury S. Peter, West Stower, Todbere-in the days of George II.

Considering the importance of the Rudhalls' foundry at Gloucester, it seems strange that there is so little of their skill to be shown. The six at Wimborne S. Giles proclaim Abel Rudhall, son of Abraham II., who made them in 1737.

Now appears the great house of Bilbie, of which a few words were said on p. 125. One of the name, without an initial for a Christian name, made the bell for Dorchester Holy Trinity in 1732 and three for Caundle Stourton in 1743. He seems identical with the Thomas Biibie, from whom came the old six at S. Peter's in that town in 1734, and who cast the indifferent octave for Cullompton at Chewstoke in 1746 . Some years ago I was told at Lyme Regis that he committed suicide in despair of getting this Cullompton peal into tune. However this may have been, a Thomas Bilbie cast a treble for S. Peter's, Dorchester, at Cullompton in 1750, three for Cerne Abbas in 1762, and a treble for Stoke Abbot in 1764. Next year we find him at Beaminster in a complicated record. There is an octave, of which T. Bilbie by himself makes the second, third, fourth, sixth, and seventh, but T. Bilbie, sen., and T. B̄ilbie, jun., made the treble and tenor, while the fifth required the joint efforts of T. Bilbie and sons. I think we may assume that the son Thomas was the maker of Chardstock tenor in 1766 and of others bearing his name later on, assisting with a brother James for Stalbridge fifth in 1791, while brother William, returning to the ancestral Chewstoke, cast the Folke fourth in 1777 and the Stalbridge sixth in 1779. Abraham Bilbie is found at Winterborne Whitchurch in 1768. The latest date of the Bilbies in Dorset is 1806, at Broadwinsor, from Cullompton, without a Christian name. From the same place in later days came several bells made by the Pannells.

One William Elery, B.F., shows up on the Winterborne Kingston tenor, dated ${ }^{1749}$. It is, to the best of my belief, the sole instance of the name. Thomas Janaway, whose foundry at Chelsea ( $1763-1785$ ) began and ended with himself, cast the treble at Langton Matravers in 1768. Locai work falls off as time goes on, the Metropolis swailowing up more and more of the casting and recasting. From the days of George III. to the present time Whitechapel and Cripplegate are far ahead of the total of other foundries far and near. Of the latter, Aldbourne, though conspicuous by its absenve under the Corrs, does something in Dorset under Robert Wells and James Wells, the largest and earliest instance being the five at Witchampton in 1777. Bayley, Pyke, and Kingston, in succession in business at Bridgwater, are found in five towers. Joshua Kipling, of Portsmouth, is only known in our bounds at Corfe Castle. I can find out no more about the Blandford foundry. Salisbury has revived in the beginning of the new century, and appears at Stower Provost and Lytchett Minster; and Bristol in the Jubilee year at Folke and (I feel sure) at Durweston also, and in a few other towers afterwards.
Loughborough foundry is the descendant of the grand old Leicester business, which migrated to Kettering and S. Neot's, under the Eayres and Robert Taylor. In the next generation there was another migration of two Taylor brothers to Oxford. The elder, William, from whom we have the Pimperne tenor (1846) remained there, while John went to Loughborough, where his descendants need no notice from me. Their works speak for themselves.

In the S. Neot's foundry there was a foreman, named Thomas Osborn, who, on the death of Josepn Eayre, carried on the work in conjunction with Edward Arnold, a cousin of Eayre's. The partnership lasted some six years. In 1779 Osborn removed to Downham Market, in Norfolk, his native place, where he did well, took his grandson, William Dobson, into partnership, and died in 1806. The grandson quite maintained the reputation of Downham Market. Many years ago an old
list of his peals fell into my hands. Dublin, the Island of S. Vincent, and Carnarvonshire know him; and, above all, Liverpool, where his grand twelve, tenor 4 I cwt., hang in S. Nicholas tower.

In Dorset his chief work was at Poole, for which he cast the eight in 182 I . In 1827 he cast five out of the six for Sturminster Newton, and there are single bells of his at Corfe Castle and East Stoke. He died in London in 1842, aged 62, a brother of the Charterhouse, where he is buried.

The Whitechapel foundry (removed from Phelps's old site to the Artichoke) enters Dorset in 1750, when Thomas Lester made the Langton Matravers treble. Afterwards he took Thomas Pack into partnership, and died early in 1769 , his nephew, William Chapman (whose granddaughter, an old lady, named Skinner, was kind to me at Cambridge), joining Pack as junior partner. Their bells are at Portland S. George and Moreton. In ${ }_{1781}$ Pack died. Mrs. Skinner told me that a few years before this time her grandfather was engaged in some work for a parish in Kent, and noticed the intelligent interest taken by a young man from the place. This led to the young man, whose name was William Mears, entering the foundry as a worker, and, after doing a little business on his own account, becoming Chapman's partner. Chapman died of consumption in 1784, and the whole business rested on William Mears, who brought his brother Thomas, a brewer at Canterbury, to help him. The only Dorset work by Chapman and Mears is the bell at Arne, cast in 1782 .* Thomas Mears in 1789 took the foundry by himself, and in 1804 co-opted his son Thomas, whose name we find alone from 1809 to 1844 . Thomas II. was succeeded by his sons Charles and George. Soon after the death of the former Robert Stainbank became partner to the latter.

The Whitechapel bells are too many to recapitulatealtogether about 120 - some by Mr. Lawson, who died

[^29]suddenly last year. Those at Hinton Parva are stated on p. 108 to have been Stainbank's, which is impossible.

Bells from Cripplegate run into three figures. The story of the Warner family, too long to give here, is well told by Stahlschmidt in his Church Bells of Kent; * but one remark of his on modern additions is worth recording. It does not apply to Kent alone, or to Cripplegate alone. When bells are added to an existing peal, or recast, they are almost always shorter in form than the older ones. Thus, though the new bells may be quite true in note, the variation in shape produces variation in harmonics, which does not improve the general effect of the whole ring. We have two from the Croydon foundry at Nether Compton and Yetminster, and two from Birmingham at Compton Abbas and Chaldon Herring.

Lastly, there is the carillon at Cattistock, of which Dorset may be justifiably proud. The earliest English record of a carillon known to me comes from the will of John Baret, of Bury S. Edmund's, 1463, in which he directs that "the Sexteyn of Seynt Marie chirche do the chymes Smythe Requiem eternam" in connection with his Trental and "yeerday." As may be seen in Plate VII. in my Church Bells of Suffolk, the music only extended over five notes. In later days my native Boston set the example of machine music, when in 1867 Louvain supplied a set of 36 bells to extend upwards the old octave of the steeple bells. We have notable instances now at Eaton Hall and Aberdeen, as well as at Cattistock, where the same Louvain foundry, under Severin van Aerschodt, placed the tuneful ring, of which the detail of inscriptions may be found in its place. They are arranged in upward order, after the manner of musicians rather than ringers. The lowest four are in major diatonic scale in the key of E ; all the upper bells are in chromatic sequence.

They owe their existence to a former Rector, the Rev. H. Keith Barnes, who, assisted by many friends, notably his
successor, the Rev. R. P. Stickland, has given a lasting memorial of that love for bell music which is dear to so many hearts by association as well as from its inherent melody.

In closing this imperfect appendix to the inscriptions in the county, I desire to return my best thanks to the members of the Dorset Field Club and other fellow-labourers, and especially to the Rev. W. Miles Barnes, the Hon. Editor of the Club's "Proceedings," and the Rev. C. W. Dicker, from whose drawings the blocks of engravings were prepared. Had it not been for the cordial co-operation of gentlemen who, with much trouble and inconvenience, climbed the towers and rubbed the inscriptions, this work could never have been carried through.

Our history must end with a notice of the Cattistock carillon, necessary rather for those outside the county than for Dorset readers. The munificence of the late Rev. H. Keith Barnes, Rector of the parish from 1863 to 1875 , not only provided the fine tower in which the bells hang, but also, with the help of members of his family and other kind friends, the bells themselves. The idea seems due to Mr. Barnes's admiration of the celebrated carillon at Mechlin and other Belgian towns. The example, set first by Boston in 1867, was due to the impression produced in like manner on Mr. William Simonds, Mayor of Boston in 1865. Here there are 44 bells. Aberdeen, Eaton Hall, Worcester Cathedral, Shoreditch, and Bradford Town Hall have followed suit, and now this retired village is charmed with the music of its 35 bells. The inscriptions will be found in their place, arranged in order contrary to the campanological system, which always begins from the smallest. In 1901 a change was made, the bell in $G$ being exchanged for one in A sharp, cast by Felix van Aerschodt, of Louvain, son of the noted Severin van Aerschodt, the original founder of the peal. This change was made on account of tune exigencies. A correction, therefore, is necessary on p. 35, reading in the peal 3 and 4 for 4 and 5 , and among the other bells 5 for 3 . For years after their arrival at Cattistock the only voices from the Louvain foundry which were heard were those of the peal, till,
through the energy and perseverance of the present Rector, the Rev. R. P. Stickland, the work was completed, and a joyful service of dedication held on June 1st, 1899, when the Bishop of Salisbury preached to a large assembly, comprising many representatives of families connected with the parish in past days, and two representatives at least from every inhabited house.

Appended is a table giving the weights and notes:-

|  | Weight. | Note. |  | Weight. | Note. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | cwt. lb. <br> $19 \quad 87$ | E | 19 | $\frac{\mathrm{lb}}{71} \mathrm{oz} .$ | C |
| 2 | $12{ }^{12}$ | F sharp | 20 | 82 | C sharp |
| 3 | 917 | G sharp | 21 | 66 |  |
| 4 | $8 \quad 49$ | A | 22 | 45 | D sharp |
| 5 | $780{ }^{7}$ | A sharp | ${ }_{2}^{23}$ | $50 \frac{3}{4}$ |  |
| 6 | 5110 |  | 24 | 40 |  |
| 7 | $5 \quad 23$ | C | 25 | 361 | F sharp |
| 8 | 428 | C sharp | 26 | $35 \frac{3}{4}$ |  |
| 9 | 336 |  | 27 | $33 \frac{1}{2}$ | G sharp |
| 10 | 3, 20 | D sharp | 28 | 33 |  |
| 11 | 249 |  | 29 | 22. | A sharp |
| 12 | 211 |  | 30 | 24 |  |
| 13 | 183 | F sharp | 31 | $23 \frac{3}{4}$ |  |
| 14 | 167 | G | 32 | $23 \frac{1}{4}$ | C sharp |
| 15 | 150 | G sharp | 33 | $24 \frac{1}{4}$ |  |
| 16 | 118 | A | 34 | ${ }_{23}^{23} 14$ | D sharp |
| 17 | 15 | A sharp | 35 | 23 |  |
| 18 | 82 |  |  |  |  |



MINTERNE MAGNA TREBLE.


#   

Rector of Winterborne Came.
 poems printed in the pages which follow were written, most of them, in 1867. This year was the last year in which W. Barnes wrote in the Dialect, with the exception of hes last poem, "The Geäte a-vallen to," which was written on October 13 th, 1885 , at his dictation, for he was then too weak to write himself. Between 1868 and 1877 he wrote a large number of poems in ordinary English; many of these have been printed, but not all. I do not find any direct evidence of his having written any poem between 1877 and 1885, though there is indirect evidence that he wrote a few in ordinary English at some time in the course of those years, for nine such are printed in the "Dorset County Chronicle" of $\mathbf{1 8 8 0}$.

There has been some difficully in making up this collection; W. Barnes left no list of his poems, and rarely talked of them; so far as I can now remember, they were never the subject of table talk, unless, perhaps, occasionally after a public reading of them ant when there was any incident to relate in connection with it, so we never knew when he wrote; he seems to have written when the inspiration was upon him, and, having written, he was satisfied. He rarely


William Barnes, 1870 (?).
refers to individual poems, even in his diaries, in which are many entries of " scrivendo versi," "versi scritti," without any indication of the subject. It is only occasionally that he has given the title of the poem on which he has been engaged. When he has given this information in the diary, I have added it as a footnote to the poem.

Some views of Came Rectory and its surroundings, as they were in $m y$ father's time, have been added. Those who know the place will have noticed that, though the cottage itself is but little altered, its surroundings have been changed, so as to be beyond recognition. This was the work of a former rector of Came, who wished to have a tennis court in front of the house, and, as the ground undulated, instead of levelling it by removing soil from the higher to the lower parts, he had tons of soil carted away to the field opposite, the flower beds were demolished, the roads grubbed up and grassed down, the entrance gates taken away, and the entrance itself blocked. The old back entrance was retained, and is now the only approach to the house. It is a pity, as the picturesqueness of the place has been spoilt.

The photographs, which I took before these changes were made, are the only existing representations of the place as it zeas. One of these, the entrance with its open gate, may recall the last poem written by my father, "The Geäte a-vallen to," and the bill on the gate post affords clear evidence of the date when it was taken, for it is the auctioneer's bill announcing the sale of furniture and effects. The other two views are the house and lawn taken, one in the early autumn, as may be seen from the leaves on the grass, and the front of the cottage taken in the summer, and showing the flower beds and "lions," which now decorate the entrance to Somerleigh Court, Dorchester.

The former Rector of Preston, the Rev. E. Henslowe, has very kindly sent me a report of a conversation he had with Granny Galpin, a former parishioner of W. Barnes, who spent the last years of her life in that parish. As it might interest readers, I reproduce the conversation.

Mr. Henslowe writes:
"I was calling on her when she was living at Preston, and, in the course of our talk, she told me that she used to live at Came, and that she had a great regard for your late father. I thought it would
interest and gratify her to record how many other people shared in the esteem and affection which she entertained for Mr. Barnes. I said, ' You know they have put up a statue to him outside St. Peter's Church at Dorchester.' She said, 'Yes! and what a colour!! poor dear man!!!' I said, 'Oh! that's owing to the stuff they made it of; they couldn't help that, you know.' She said, 'I don't ceäre; they did ought to a-drawed'n out defferent. And, there, Mr. Barnes wur that clever he know'd vive or zix defferent sarts o' languages, and, when any furriners did come to Darchester, the volk there didn't know what they did zaay, and couldn't vind out, not avore they did zend auver to Came fur he to come and tell 'em. And, now he's dead, they've a-claimed 'en ! ! !'"

It should be added, by way of explanation, that W. Barnes acted as interpreter in the police court at Dorchester on two or three occasions.
$W . M . B$.

## 1. THE WIND AT THE DOOR.

As day did darken on the dewless grass
There still wi' nwone a-come by me,
To staÿ a-while at hwome by me;
Within the house, all dumb by me,
I zot me sad as the eventide did pass.
An' there a win'-blast shook the rattlèn door,
An' seemed, as win' did mwone without,
As if my Jeäne, alwone without,
A-stannèn on the stone without,
Wer there a-come wi' happiness oonce mwore.
I went to door; an' out vrom trees above
My head, upon the blast by me,
Sweet blossoms wer a-cast by me,
As if my love, a-past by me,
Did fling em down-a token ov her love.

"Sweet blossoms o" the tree where I do murn,"
I thought, " if you did blow vor her,
Vor apples that should grow vor her,
A-vallèn down below vor her,
O then how happy I should zee you kern."
But no. Too soon I voun' my charm abroke.
Noo comely soul in white like her-
Noo soul a-steppèn light like her-
An' nwone o' comely height like her-
Went by ; but all my grief ageän awoke.

## 2. WINTER A-COMEN.

I'm glad we have wood in store awhile, Avore all the ground's avroze awhile; Vor soon we must shut the door awhile Vrom wind that's a-whirlèn snow.

The zwallows have all a-hied away, The flowers have now a-died away, An' boughs, wi' their leaves, a-dried away, In wind do goo to an' fro.

Your walks in the ash-tree droves be cwold, Your banks in the elem groves be cwold, Your bench by the house's oves be cwold Where zummer did leätely glow.

Noo rwose is a-bloomèn red to-day, Noo pink vor your breast or head to-day, A-deckèn the geärden bed to-day, Do linger a-noddèn low.

Noo mwore is the swingèn lark above, An aïr a-clonded dark above
Do stifle the zun's last spark above, Where little blue sky do show.

Zoo now gi'e your cheäks a bloom to-night, Where vier do het the room to-night,
A'dreven away the gloom to-night, While winterly wind do blow.

## 3. THE SURPRISE.

As there I left the road in Maÿ, I vound, a-walkèn drough a ground, A gleäde, wi' maïdens at their plaÿ, By leafy boughs a-hemm'd all round. An' there, in me'th that show'd noo harm, They wagg'd their tongues in merry charm, Though little did they seem to fear So queer a stranger mid be near.
Teeh! heeh! Look here! Hah! Hah! Look there
An' oh! so plaÿsome ; oh! so feär.
An' oone did dance, an' oone did spring,
Or bob, or bow, wi' funny smiles;
An' oone did swing, or zit and zing,
Or zew a stitch or two, at whiles;
An oone skipp'd on, wi' downcast feäce,
All heedless to my very pleäce ;
An' then, in fright, wi' oone voot out,
Meäde oone dead step; an' whirl'd about.
Wi' heeh! an' oh! Ooh! ooh! Look there!
An' oh! so plaÿsome ; oh! so feär.
Away they scoted, all vull speed,
By boughs a-swingèn on their track,
As rabbits, out ov wood at veed,
At zight o' men do scote all back.
Oone pull'd behind her litty heel
A thread o' cotton, off her reel.
An ooh! to vollow thik white clue,
I haef begun to scamper too.
Teeh! heeh! Run here! Eeh! eeh! Look there! An' oh! so skittish; oh! so feär.


## 4. A WISH A-COME TRUE.

My longèn will, a-wand'rèn wide
Beyond the goods I had,
Did hang on other gifts, that pride
Mid turn from good to bad.
An' in my dream I still did hope
Vor theäse green slope, where now the stream
Do gi'e an' teäke, wi' ramblèn flight,
My tonguey land o' left an' right;
By dippèn downs, at dawn o' day,
An' dewy dells, when day do die.

An' now I have the trees to swaÿ,
Where western wind do roar
Ageän their bowèn heads, to plaÿ
The softer roun' my door,
As they do pass an' cheäce the flight
O' runnèn light on sheäded grass,
An' zweep along the sheakèn zedge,
An' russle by the dead-leav'd hedge.
By mornèn meäd, or midday mound,
Or mellow midnight's mounted moon.

An' there my cows, wi' wide-horn'd head,
Do stalk, a-waggèn slow,
An' two be dun, an' two be red,
A-cappled white as snow;
An' there vull wide o' back 's my meäre,
Vor zome long peäre o' lags to stride;
A cunnèn jeäde, that now would vind
Out all my roads if I wer blind ;
By windèn ways, $a$-wandrèn wide,
Or wilder weäste, or wind-blown wood.

An' when my work do bring me all
Its well-eärn'd zilver cwein,
An' I've a-païd each hand his call,
Vor lawful paÿ vrom mine;
I still can speäre enough to grant
My wife a jaunt, wi' weather feäir ;
Or buy my bwoy a wooden hoss,
Or gie my maïd a doll to toss,
Wi' little limbs a-loppèn loose,
To lie a-leanèn low in lap.

## 5. WHEN WE WERE YOUNG TOGETHER.

When we, all friends, in manhood's prime,
Did meet, work-free, wi' weather fine ;
As you'd a-meäde, at evenèn time,
Your workday good, as I had mine;
Then oone did call, as he did come
To vetch another out vrom hwome:
"Come out a while wi' me!"
"Aye, I shall soon be free."
"How long have I to waït ?"
"Why, I'm a-comèn straïght."
Aye, aye, twer zoo,
That we did do,
When we wer young together.

While zummer days did slowly run
Drough Noons o' shrunken sheädes an' het;
Then we, a-burn'd below the zun,
Did meet, an' call as we'd a-met :
"Hallo! why you do never come
Vor me?" "Nor you vor me at hwome."
"Well, where's your road to-night ?"
"Where you should goo by right."
"Shall I be welcome there?"
" To oone, I'd nearly zwear."
Aye, aye, like that
We then did chat,
When we were young together.

Then we, wi' many dear wold neämes,
Did meet, within zome naïghbour's door ;
An' chap an' maïd in merry geämes,
Did spring an' scuff about the vloor.
If oone did speak a little teärt,
Another's answer wer as smart.
" Come, who have you a-chose ?"
"Here feäce to feäce in rows;".
" Here now we'll dance a-reel ;"
"Here voot it, tooe an' heel."
Aye, we did dance,
An' hop, an' prance,
When we were young together.

Then we, in all our pride, did try
Which chap could run or leap the best ;
Or lift the biggest waïght, or shy
A popple truer than the rest.
"Who'll walk along theäse narrow poles?"
" Not you, my lad, wi' your splaÿ zoles."
"Now you can't hit the stowne."
"I can. Whee-it. Well done!"
"Well, you can't clear the brook."
"Oh, can't I, then ? You look!"
An' down he dash'd,
As water splash'd,
When we were young together.

In zummer time we went to teäke
Our picnic by the castle walls ;
An' plaÿ'd our geämes bezide the leäke, Where swans did zwim by watervalls.
An' there, vor merry pranks, did clim'
The broken wall or elems lim'.
"Here, zee where I'm a-clomb;"
"Well, zee where I'm a-come."
"You can't clim' down, wold bwoy ;"
"I can, I'll bet. Heigh, hoy!"
An' down he vell,
You needen tell,
When we wer young together.

## 6. WINTER WEATHER.

When elem stems do rise, in row, Dark brown, vrom hangèns under snow, An' woods do reach as black as night By slopèn vields o' cleänest white ; The shooters by the snowy rick, Where trees be high, an' wood is thick, A-markèn tracks the geäme do prick, Do like the winter weather.

Or where do spread the grey-blue sheet Ov ice, vor skeäter's glidèn veet That they do lift, vrom zide to zide, Long yards, an' hit em down to slide ; Or sliders, one a-tott'rèn slack Of limb, an one upon his back, An' one upright, do keep his trackHa' fun, in winter weather.

When we at night, in snow an' gloom, Did seek some neighbour's lighted room, Though snow did show noo path avore, Towards the house, we vound the door; An' there, as round the brands, did spread The creepèn vire $o^{\prime}$ cherry red, Our veet vrom snow, vrom wind our head, Wer warm, in winter weather.

Wherever day mid give our road By knaps, or hollows over-snow'd ; By windy gaps, or lewer nooks, Or brigèd ice, o' vrozen brooks ; Still mid we all, when night do come, Know where we have a peacevul hwome, An' glowèn vire vor vingers numb Wi' cwold, in winter weather.

## 7. CLOUDS.

A-ridèn slow, at lofty height, Wer' clouds, a-blown along the sky, O' purple blue, an' pink, an' white, In pack an' pile, a-reachèn high, A-shiftèn off, as they did goo, Their sheapes, from new, ageän to new.

An' zome like rocks an' tow'rs o' stwone, Or hills or woods, a-reächèn wide ;
An' zome like roads, wi' doust a-blown, A-glitt'rèn white up off their zide,
A-comèn bright, ageän to feäde
In sheäpes a-meäde to be unmeäde.

Zoo things do come, but never stand, In life. It mid be smiles or tears, A joy in hope, an' one in hand, Zome grounds o' grief, an' zome o' fears, It mid be good or mid be ill, But never long a-standèn still.

## 8. RINGS.

A veäry ring so round's the zun
In summer leäze did show his rim, An' near, at hand, the weäves did run

Athirt the pond wi' rounded brim:
An' there by round built ricks of haÿ,
By het a-burn'd, by zuns a-brown'd,
We all in merry ring did plaÿ,
A-springèn on, $a$-wheelèn round.
As there a stwone that we did fling
Did zweep, in flight, a lofty bow,
An' vell in water, ring by ring
O' waves bespread the pool below,
Bezide the bridge's arch, that sprung
Between the banks, within the brims,
Where swung the lowly bendèn swing,
On elem boughs, on mossy limbs.

## 9. THE BROKEN JUG.

Jenny and John.
Jen: As if you coudden leäve the jug alwone!
Now you've a-smack'd my jug,
Now you've a-whack'd my jug,
Now you've a-crack'd my jug
Ageän the stwone.

John: Why he must be a-crack'd unknown to you, Zoo don't belie the stwone, He scarce went nigh the stwone; He just went by the stwone, An' broke in two.

Jen: He, crack'd avore! no, he wer sound enough,
Vrom back to lip, wer sound,
To stand or tip wer sound, To hold or dip wer sound, Don't talk such stuff.

John : How high then do the price o'n reach ?
I'd buy zome mwore, so good;
I'd buy a score, so good;
I'd buy a store, so good,
At twopence each.
Jen: Indeed! with stwonen jugs a-zwold so dear.
(Slaps him.)
No, there's a tap, vor lies;
An' there's a slap, vor lies ;
An' there's a rap, vor lies,
About your ear.
John: Oh! there be pretty hands! a little dear.

## 10. THE LOST LITTLE SISTER.

O' zummer night, as day did gleam,
Wi' weänen light, vrom red to wan ;
An' we did play above the stream,
Avore our house a-winden on,
Our little sister, light o' tooe,
Did skip about in all her pride
O' snow-white frock an' sash o' blue ;
A sheäpe that night wer slow to hide, Beside the brook a-tricklen thin
Among the poppies, out an' in.

When win' do blow at evenèn time
Now here, now there, by knap and nook,
As mid be, on the leafy lime,
Or grey bough'd withy by the brook,
Or on the apple trees mid vall,
Or on the elems in the grove,
Or on the lofty tower's wall,
By pleäces where we used to rove;
Then ev'ry sound on ev'ry pleäce
Do bring to mind her perty feäce.
If periwinkles' buds o' blue
By lilies hollow cups do wind, What then can their two colors do,

But call our sister back to mind?
She wore noo black-she wore her white ;
She wore noo black-she wore her blue ;
She never murn'd another's flight,
Vor she's avore us all to goo ;
Vrom where our litty veet did tread
Vrom stwone to stwone the water's bed.

## 11. TWO-PEART ZINGEN.

I heärd, at a house where I did call,
A mother an' daughter's vaïces ring,
In tuèns vor two, that they did zing,
Straïn upon straïn, an' vall by vall.
The mother wer comely, though a-staid, The daughter wer young, but woman-tall, As vo'k do come on, to big vrom small ;
Maïd upon child, an' wife vrom maïd.
An' oh! when the mother, in the train O' years, mid h'a' left her maïd alwone, Wi' noo fellow vaïce to match her own,
Ditty by ditty, strain by strain-

Mid time have a-shown the way to bring
Her vaïce to be mine ; wi' me to staÿ,
While softly my life mid wear awaÿ,
Zummer by zummer, spring by spring.

## 12. GREEN.

Our zummer way to church did wînd about
The cliff, where ivy on the ledge wer green.
Our zummer way to town did skirt the wood, Where sheenèn leaves in tree an' hedge wer green.

Our zummer way to milkèn in the meäd, Wer on by brook, where fluttrèn zedge wer green.

Our hwomeward ways did all run into one, Where moss upon the roofstwones' edge wer green.

## 13. THE DOG WI' ME.

Aye, then, as I did straggle out
To your house, oh! how glad the dog,
Wi' lowzet nose, did nimbly jog
Along my path, an' hunt about.
An' his maïn pleasure wer to run
Along by boughs, on timber'd brows;
An' ended where my own begun,
At your wold door, an' stwonen vloor.
An' there, wi' time a-glidèn by,
Wi' me so quick, wi' him so slow,
How he did look at me, an' blow,
Vrom time to time, a whinèn sigh :
A-meänen-Come now, let us goo
Along the knolls wi' rabbit holes;
I can't think what you have to do
Wi' theäse young feäce, in theäse wold pleäce.
Diary, July 20, 1867. Scrivendo versi, "The dog wi' me."

## 14. JOHN BRINE ANGRY, AND A-TALKEN LOUD OF HIS NAIGHBOUR AVORE AN ECHO.

Who is he I should like to be twold!
What is he I should like vor to know!
Why the Brines' neäme would stan' good vor goold
When the Browns had noo neäme a-known $0^{\prime}$.
Echo-No, no.
No, I bent a-sheäm'd o' my pleäce ;
No, I bent a-sheäm'd o' my neäme ;
No, I can well hold up my feäce
Where he would hang his down vor sheäme.
Echo-Vor sheäme!
Since he can bestride a wold meäre
His limbs wi' his pride be a-strout,
Though his veet did tramp about beäre,
When I had a ho's to ride out.
Echo-I doubt.
Aye, aye, he mid yet have a vall, If a half I do hear do hold good;
I could very soon meäke en look small, Wi' a teäle I could tell, if I would.

Echo-I would.
His pride would ha' come to an end
Long a-gone, as it must, bye an' bye,
If I hadden a-stood vor his friend
As I did, an' the greater oaf I.
Echo-O fie!
I mid be a little vore-right;
But I never do do on the sly
Little doèns not fit vor the light ;
You do never catch me in a lie. Echo-A lie.

## 15. THE VIELD PATH.

Here once did sound sweet words, a-spoke
In wind that swum,
Where ivy clomb,
About the ribby woak;
An' still the words, though now a-gone,
Be dear to me, that linger on.
An' here, as comely vo'k did pass,
Their sheädes did slide,
Below their zide,
Along the flow'ry grass,
An' though the sheädes be all a-gone,
Still dear's the ground they fell upon.
But could they come where then they stroll'd,
However young
Mid sound their tongue,
Their sheädes would show em wold;
But dear, though they be all a-gone, Be sheädes o' trees that linger on.

O ashen poles, a-sheenèn tall!
You be too young
To have a-sprung
In days when I wer small ;
But you, broad woak, wi' ribby rind, Wer here so long as I can mind.

## 16. THE SISTER AND BROTHERS.

Joe: Come out to zee the glow-worms, do, So thick as blossoms on a bough.
Sister: O no. The grass is wet wi' dew,
An' I've a-put on slippers now.
Here's Tom ;
Where's he a-comén vrom?

## Tom : The nightingeäle's by Woodcombe bog. Come down to hear en over hill.

## Sister: No, 'tis too vur an' vull o' vog

 Out there. I shall but catch a chill. Here's BillA-comen. What's his will ?

Bill: The Lincham bells be up vull swing, A-ringèn peals. Come up the knoll.
Sister: A-ringèn peals? Why they can't ring There now. They be but fit to toll.

Well done,
Here's Tom ageän, vull run.

Tom : John Hind is by his geärden wall, A-pläyèn ov his clarinit.
Sister: How I'm a-teaz'd among ye all! I s'pose you'll have me out a bit.

## 17. THE BARS ON THE RIDGE.

The bars on the timber'd ridge do span The gap that avore the sky do show The vo'k, all a-climbèn to or fro, Woman by woman, man by man.

To strangers that once do reach the gap,
How feäir is the dell beyond the ridge, Wi' houses, an' trees, an' church, an' bridge, Wood upon wood, or knap by knap.

Down here be some pleasant ways to rove ;
But, oh!'tis another pleäce behind
The bars, that do teäke, the mwost, my mind, Orchard by orchard, grove by grove.

When under the moon, above the ledge, The glossy-worn upper bar do sheen, And light do shoot down the path, Rail upon rail, an' edge by edge.

Then there is my way, while wind do sound So softly, on boughs, where lights and sheädes
Do plaÿ on the slope, by knaps an' gleädes, Tree upon tree, an' mound by mound.

## 18. LOWSHOT LIGHT.

As I went eastward, while the zun did zet, His yollow light on bough by bough did sheen;

An' there, among the gil'cups by the knap, Below the elems, cow by cow did sheen.

While after heäiry-headed horses' heels, Wi' slowly-rollèn wheels, the plough did sheen.

And up among the vo'k upon the reäves One lovely feäce, wi' zunny brow, did sheen.

An bright, vor that one feäce, the bough, an' cow, An' plough, in my sweet fancy, now do sheen.

## 19. WHITE AN' BLUE.

My love is o' comely height, an' straïght, An' comely in all her waÿs and gaït ; In feäce she do show the rwose's hue, An' her lids on her eyes be white on blue.

When Elemley clubmen walk'd in Maÿ, An' vo'k come in clusters, ev'ry waÿ, As soon as the zun dried up the dew, An' clouds in the sky wer white on blue,

She come by the down, wi' trippèn walk, By deäsies, an' sheenèn banks o' chalk, An' brooks, where the crowvoot flow'rs did strew The sky-tinted water, white on blue.

She nodded her head, as plaÿd the band;
She dapp'd wi' her voot, as she did stand ;
She danced in a reel, a-weärèn new A skirt wi' a jacket, white wi' blue.

I singled her out vrom thin an' stout, Vrom slender an' stout I chose her out; An' what, in the evenèn, could I do, But gi'e her my breast-knot, white an' blue ?

Diary, Oct. 31, 1867. Visitando e scrivendo versi, "White and Blue."

## 20. WHITE IN THE NIGHT.

An' John, that by day is down in mill, As soon as the night's a-come, Do goo vrom his gear a-standèn still, In hwome, all white at the night.

An' Jenny mid wear her white, as out
To town she do teäke her road
By day; but at dusk noo mwore's about
Abroad, in white in the night.
Vor though at the brook the bridge is strong,
An' white as he white can be-
That vo'k in the dark mid not goo wrong,
But zee his white in the night.
An' moonlight is ev'rywhere a-shed
Abroad, upon geäte an' wall;
An' down on the road that veet do tread
Do vall so white in the night-

Yet Jenny at dusk is fearful now, Since once, in the meäd alwone,
She took vor a ghost a sheeted cow, A-shown in white in the night-

O, Jenny! the while the moon do gleam, I wish you could come an' roam
Wi' me, to behold the vallèn stream In foam, so white in the night.

Vor feäirer than all the hues o' daÿ, Or grass, or the sky o' blue,
Or blossoms o' spring, a-sheenèn gä̈
Be you in white in the night.
Diary, Nov. 1, 1867. Scrivendo versi, "White in the Night."

## 21. THE FALL.

The length o' days ageän do shrink,
An' flowers be thin in meäd, among
The eegrass, a-sheenèn bright, along
Brook upon brook, an' brink by brink.
Noo starlèns do rise in vlock on wing-
Noo goocoo in nest-green leaves do sound-
Noo swallows be now a-wheelèn round-
Dip after dip, an' swing by swing.
The wheat that did leätely rustle thick,
Is now up in mows that still be new ;
An, yollow bevore the sky o' blue,
Tip after tip, an' rick by rick.
While shooters do rove beside the knoll
Where leaves be a-roll'd on quivrèn grass;
Or down where the sky-blue stream do pass, Vall after vall, an' shoal by shoal.

Their brown-dappled dogs do briskly trot
By russet-brown boughs, while gun smoke grey
Do melt in the air o' zunny day, Reef after reef, at shot by shot.

While now I can walk a dusty mile, I'll teäke me a day, while days be clear, To vind a vew friends that still be dear, Feäce after feäce, an' smile by smile.

## 22. ON THE HILL.

(Husband and Wifr.)
H. Why, 'tis nice on the hill, at the time o' the year

When the zummer is in, an' the weather is clear ;
When the flow'rs at our veet be a-blossomèn gaÿ,
An' the vields down below us be grey wi' the hay.
Hallo! Why 'tis steep. You do pank. Will ye stop?
An' look down aroun,
A-zot on the ground,
Where thyme is a-spread
In a bed, on the mound ?

Look a-yonder, how glitt'rèn do sway the tree tops,
A-glowèn wi' zunlight a-shot down the copse,
Where the greygles, in Maÿ, be a sheet o' peäle blue.
In sheäde vrom the het, vrom the wind in the lew,
You'll be cwold in the shoulders, then put on your shawl.
$W$. There the Trumans do float
Down their stream in their bwoat,
An' Willy do snatch,
An' do catch at a clote.
$H$. Out there be the hawthorns, but just out o' blooth, Zome here, an' zome there, wi' mwore shadow thar lewth.
The wold ones, like fathers, now ready to vall;
Zome younger, like children, vrom bigger to small,
An' zome be so prim as a man in his prime ;
An' zome wi' their shroad
To eastward a-bow'd,
By west winds a-zettèn
So wet, wi' their cloud.
$W$. Well now, here we be, on the uppermost ground, Where the thyme-bedded knaps be a-zwellèn so round.
But what pleäce is this, where the banks do lie low,
An' the big mossy vlints be a-laid in a row ?
$H$. Why 'twer here, by the teäle that poor father did tell, That a beacon did stand,
Vor to light wi' a brand,
To call men to blows, If their foes were to land.

There's a cloud over Blackmwore, about of our height,
Wi' his sheädow a-weepèn the ground in his flight,
An' a-climèn the tow'r, an' a-sheädèn the boughs,
An' a-leäpèn the stream, an' a-dark'nèn the cows.
'Tis now on the rook'ry, an' now on the ricks,
An' there it do catch
Up our own little hatch,
An' sheäde vrom the zun
The red tun on our thatch.
$W$. There's a man on a hoss, an' a-spurrèn o'n on.
Is zomebody ill then ? or where's he a-gone?
There's a maïd by the gil'cups out there, an' t'is, who ?
Jeäne Hine, I do know, by her skirt o' peäle blue ;
An' now she's a-slippèn along by the slope,
An' now do look round,
In a fright, at the sound
O' the bull that's a-blearèn
An' tearèn the ground.

## 23. THE STREAM-SIDE.

I zot a little while bezide
A grey-stwon'd rock-the rugged brow
Ov our clear stream, that there do glide
By leänèn trees an' hangèn boughIn Fall, when open air wer cool, An' zwallows had a-left the pool, An' gleädes in long-cast sheädes did lie Below the yet clear sky.
There leaves, that in the spring wer gay,
Wer now by heästy winds a-took, A-wither'd, off their sheäkèn spraÿ, An' bore away along the brook,
Without a day o' rest a-vound
Upon their own trees' quiet ground;
But cast away, by blast an' weäve, To lie in zome chance greäve.

When zickness smote poor Meäry low, They took her vrom her life's wold ground To poorhouse, where sad days could show

Her bread, but not her friends all round.
She vell, though not to lie at rest, At theäse wold pleäce she liked the best, A-zent away, as went on weäves The leäves to distant greäves.

## 24. THE PRIZE WINNERS.

Speakers-The Teller (T.) of the Cleveburn winners in games at another village. The Teller's Chorus (T.C.) of two or three young men come home with him. The Full Chorus (F.C.) of village hearers.
T. Wold Cleeveburn vor ever! Goo, ringers, an' turn

The brown tower-door on his greystwonèn durn, An' teäke, every man, in his up-hangèn hands, The rwopes' twisted strands.
F.C. What now, then ? what now ?
T. An' ring up a peal, vor you ought to be proud O' your brothers an' sons. Cheer 'em merry an' loud, Vor the chaps o' wold Cleeveburn do bring from the feäst Dree prizes at leäst.
T.C. Now guess who they be.
'Tis spry-vooted Jim, an' 'tis broad-shoulder'd Joe, An' young Will that do jump like a wing-lifted crow By the tall ashen tree.
F.C. Here's a clap vor each chap, then ; hurrah !
T. There Jim, wi' vive others, a-startèn, did bound Vrom the line, on the grass, like a heäre-huntèn hound, Wi' out-reachèn breast, an' wi' looks that noo feäce Could draw vrom the reäce.
F.C. Well done! Jim, well done!
T. An' they shot droo the tree-sheädes, like birds on the wing, An' could hear but one gush $o^{\prime}$ the rock-leäpèn spring, An' a rook they outstripp'd wi' their flight on the ground Turn'd hopeless around.
T.C. An' spry-vooted Jim

Come in all a-pankèn, wi' red-bloomèn feäce, The vust by a nose ? by a head? aye a peäce. The sleekest o' limb.
F.C. Here's a cheer he should hear, then; hurrah!
T. Then on come the spry-vooted jumpers, to bound, Vor height in the air, an' vor length on the ground, An' a-spingèn, wi' lags to their thighs all a-clitch'd, An' a-dropp'd as they pitch'd;
F.C. Well done! then, well done!
$T$. They did mark a long air-track, a-pitchèn so light As a rook in a vield, vrom a vew yards of flight, Though zome did pitch backward, an' zome pitch a-head, An' zome wi' trim tread.
T.C. But in jumpèn, young Bill

Outstripp'd all the crew ; an' his heel smother'd low The head ov a flower, that had noo other blow At the feäst by the hill.
F.C. Good strokes! Merry vo'ks, then, hurrah!
$T$. Then on come the bwoats up the river's broad feäce, A-ploughèn up vurrows of foam in their reäce, While the men did vall back, an' their two oars did turn, A-zweepèn a-stern.
F.C. Well done! chaps, well done!
T. Or else, as the down-leänèn rowers did bow, Their oars did vlee on vor new water to plough, As they floated by withy, or ivy-hung rock, Or by herd, or by vlock;
T.C. But broad-shoulder'd Joe,

Wi' the zweat on his brow, an' an oar in each vist, Rushed in wi' the vust o' the crews on the list That did row.
F.C. Well done! ev'ry son! then ; hurrah!
T. Zoo let Will leäp the brook, where noo bridge is a-pleäced, An' not staÿ to climb over bars, in his heäste, But over 'em pitch, on his spry-springèn tooes, In his trim highlow-shoes.
F.C. Well done! Will, well done!
> T. An' Jim run the vields in our zight, a good match Vor a heäre in vull run, or a hoss o' vull stratch; An' Joe row his bwoat up the stream, wi' a waïght $O^{\prime}$ the maïdens vor fraïght.

> T.C. Ae! Jump, run, an' row.
> Vor who among us is a-sheäm'd to belong To Cleeveburn, wi' chaps that be spry, an' be strong, As Bill, Jim, an' Joe.

F.C. 'Tis a-done. They've a-won, then; hurrah!

## 25. THE LITTLE HWOMSTEAD.

Where the zun did glow warm vrom his height, On the vo'k, at their work, in white sleeves; An' the goold-banded bee wer in flight, Wi' the birds that did flit by the leaves, There my two little children did run, An' did rile, and did roll, in their fun; An' did clips, in their hands

Stick or stwone vor their plaÿ;
In their hands, that had little a-grown;
Vor their play, wi' a stick or a stwone.
As the zun down his high zummer bow
To the west o' the orcha'd did vall, He did leäve the brown bee-hives, in row, In the sheäde o' the houses gray wall ; An' the flowers, a-sheenen in bloom, Zome a-lighted, an' zome in the gloom, To the cool o' the air, An' the damp o' the dew:
O' the air, vrom the apple-tree sheädes, An' the dew, on the grasses' green bleädes.

An' there were my orcha'd a-tined Wi' a hedge on the steep-zided bank, Where the ivy did twine roun' the rind O' the wood-stems, an' trees in high rank;
Vor to keep out the wide-lippèd cow ;
An' the stiff-snowted pigs, that would plough Up the nesh-bleäded grass,

By the young apple-trees:
The grass a-grown up to good height, By the trees, that wi' blooth wer all white.

O when is a father's good time, That do paÿ vor his tweil wi' mwost jaÿ ?
Is it when he's a-spendèn his prime
Vor his children, still young in their plaÿ, Or when they've a-grown to their height, An' a-gone vrom his heärèn an' zight, Wi' their mother's woone voice

A-left hwome at the door:
A voice that noo longer do zing, At the door that mwore seldom do swing ?

## 26. THE MOTHER'S DREAM.

I'd a dream to-night
As I vell asleep
Oh ! the touchèn zight
Still do meäke me weep,-
Ov my little bwoy
That's a-took away;
Aye, about my joy
I wer not to keep.

As in heaven high
I my child did seek, There, in traïn, come by Children feäir an' meek;
Each in lilywhite,
Wi' a lamp alight
Each wer clear to zight,
But noo words did speak.
Then a-lookèn sad
Come my child in turn;
But the lamp he had
Oh! he didden burn;
He , to clear my doubt, Zaid, a-turn'd about,
Your tears put en out;
Mother, never murn.
27. THE GEÄTE A-VALLÈN TO.

In the sunsheen of our summers
Wi' the häytime now a-come,
How busy wer we out a-vield
Wi' vew a-left at hwome, When waggons rumbled out ov yard Red wheeled, wi' body blue, And back behind 'em loudly slamm'd The geäte a-vallèn to.

Drough day sheen for how many years
The geäte ha' now a-swung, Behind the veet o' vull-grown men

And vootsteps of the young
Drough years o' days it swung to us
Behind each little shoe,
As we tripped lightly on avore
The geäte a-vallèn to.

In evenen time o' starry night
How mother zot at hwome
And kept her blazing vire bright
Till father should ha' come,
And how she quickened up and smiled, And stirred her vire anew,
To hear the trampèn hosses' steps
And geäte a-vallèn to.
There's moonsheen now in nights o' Fall When leaves be brown vrom green,
When to the slammèn of the geäte Our Jenney's ears be keen,
When the wold dog do wag his tail, And Jeän could tell to who,
As he do come in drough the geäte The geäte a-vallèn to.

And oft do come a saddened hour When there must goo away,
One well-beloved to our heart's core. Vor long, perhaps vor aye, And oh! it is a touchèn thing The lovèn heart must rue
To hear behind his last farewell
The geäte a-vallèn to.




## Ztotes ont the

## gifora of the ©Ghesil Z5ank and the gifeet

By W. BOWLES BARRETT.

(Read 14th September, 1905.)

IME being limited, I will proceed at once with my subject, "Notes on the Flora of the Chesil Bank and the Fleet," simply premising that few parts of the Dorset coast-line have suffered so little change as the shores and banks of the Fleet. Is not this mainly due to the extraordinary protection afforded by the Chesil Bank, the absence of any strong tides and of all river flow, and the paucity of the neighbouring population? The result is that the indigenous vegetation and all else are seen in their primitive state, just as our Anglo-Saxon forefathers looked on them, when, in their flat-bottomed boats, they rowed across to the Chesil Bank from the little harbours on the inner shore, still called by the Saxon name of "hythes." In fact, nothing of Nature's work has been disturbed or altered by lapse of time.

The Chesil Bank, north-west of Smallmouth, is rather difficult of access. No other botanist than myself has ever undertaken the somewhat arduous task of examining the Bank, as well as
both shores of the Fleet, from Smallmouth to Abbotsbury; considerable parts of these I have gone over more than once. I hope, therefore, that my notes on this unfrequented coast may be of some little interest. Time forbids that my remarks should extend to the southern part of the Chesil Bank lying between Portland and Smallmouth.

I should just like to say in passing, that if any lady or gentleman present should wish to combine scientific observation with really active exercise, all that could be desired in that direction may be found by attacking the beach at Smallmouth on a warm summer day and walking on the loose pebbles, from thence to Abbotsbury-a distance of about nine miles, or, allowing for backslidings, say thirteen miles.

The Chesil Bank and Portland form the extreme southwestern part of the West Channel sub-province, as defined by the late Mr. Watson in his Cybele Britannica. We have scarcely entered the Fleet at Smallmouth before we find, on a warm bank facing towards the south-west, a galaxy of scarce plants of southern and western distribution ; the following leguminosæ all grow there together, viz. :-The Yellow vetch (Vicia lutea, L.), the Bithynian vetch ( $V$. bithynica, L., var. angustifolia, Syme), the Yellow vetchling (Lathyrus Aphaca, L), and the Grass-leaved vetchling (L. Nissolia, L.). On the mud below the bank just mentioned is the Creeping Marsh Samphire (Salicornia radicans, Sm .), only recorded from twelve out of Watson's 112 counties and vice-counties. Not far off is another plant of southern distribution, Festuca uniglumis, Soland, the scarcest grass, I think, of the Chesil Bank.

The Callous Fruited Water-Dropwort (Enanthe pimpinelloides, L.), so frequent in this neighbourhood, but rare in many counties, has a local interest which we should not forget. About sixty years ago the Rev. W. Garnons detected this plant on the moor at Smallmouth on which the Torpedo Works now stand. He submitted it to the late Mr. Babington, Professor of Botany at Cambridge, and this led to Cinanthe pimpinelloides, as now understood, being firmly admitted to the British flora as a
distinct species; it had previously been confused with $\boldsymbol{E}$. Lachenalii, C. Gmel.-a very different plant. It is implied in the Flora of Dorsetshire, Ed. II., 133, that E. pimpinelloides shuns the neighbourhood of the sea, but this is by no means the case ; it is plentiful on the coasts of Dorset and Hants, and less so on that of South-east Devon.

On reaching the Bank, we are at once struck by the profusion of the Sea Bladder Campion (Silene maritima, With.), but the plant seems not quite typical. S. maritima is described in the text books as having the petals "shortly cleft"; in our plants they are cleft nearly or quite to the base of the laminæ.

The vegetation of the inner shore of the Fleet differs much from that of the outer or Chesil Bank shore; the soil of the outer shore is pebbly, with but a small admixture of sand, while that of the inner shore is stony and gravelly, consisting of the débris from the adjoining land banks. Consequently, in both cases we miss a large proportion of sand-loving plants.

As might be expected, the Goosefoot Tribe (Chenopodiacea) is the best represented. Every British genus is present, including no less than 14 species. One of the most interesting of these is the Shrubby Sea-Blite (Suceda fruticosa, Forsk.). It forms a hedge of dense bushes a few yards above high-water mark, and is quite a feature on the Chesil Bank from Smallmouth to Abbotsbury. It somewhat resembles the Juniper at a little distance, and is decidedly ornamental. The wood is very hard; the young branches are reddish, the seeds black and exquisitely polished. It is evergreen, bearing well the exposure of this stormy coast. It has a real historic interest, too, for it was discovered hereabouts by that eminent physician and author of Norwich, Sir Thomas Browne, the tercentenary of whose birth we are about to commemorate. This was, in all probability, about the year 1630, on Sir Thomas' way to or from France, when, as a young man, he was studying medicine on the Continent. To have had amongst the recorders of our flora the author of that classic volume, "Religio Medici," translated within a very short time of its publication into nearly half the languages of Europe-a

## 254 FLORA OF THE CHESIL BANK AND THE FLEET.

man considered by Lowell to be possessed of the most imaginative mind since Shakespeare-cannot fail to be gratifying to Dorset naturalists. S. fruticosa sometimes attains a great age; I have found by the Fleet some very old root stocks, measuring five inches in circumference. The conditions of the inner shore appear to be unfavourable to its growth; there it seems to be dying out. It is one of our rarities, being recorded from seven British counties and vice-counties only. Like some other Fleet plants which I shall mention, it reaches its extreme western limit in Britain at the Abbotsbury Swannery.

That common piant of our cornfields, which you all know, the Corn Sowthistle (Sonchus arvensis, L.), shows a strange partiality for the immediate vicinity of salt or brackish water. From July to September it forms a golden fringe on parts of the Chesil Bank just above a line formed by masses of Zostera left by the tide. Zostera marina, L., var. angustifolia, Fr., covers much of the bed of the Fleet, affording food for the swans; it is locally called Silkgrass.

The Yellow Horned Poppy (Glaucium luteum, Scop.), is not so common here as might have been expected; it is locally called "Squat-maw" or "Bruise-herb," the leaves being reputed to have the effect of curing bruises.

The rare and lovely Sea Pea (Lathyrus maritimus, Bigel), grows abundantly among the naked pebbles of the Bank, at intervals from opposite the Portland Ferry Bridge to East Bexington, (a little north-west of the Abbotsbury Swannery), which is, I believe, its present western limit in Britain. There has been no record for Devon for upwards of 50 years, and none for Cornwall for nearly 200 years. Mounting sometimes to nearly the highest ridges of the Bank, its roots extend very many feet down through the ahsolutely loose shingle. A peculiarity of the plant is that, in the evening, like some others of the leguminosæ, its leaflets point upwards. It flowers until the end of August. During a famine in the 16th century the poor on part of the Suffolk coast were kept alive by eating the seeds of the Sea Pea, and I see no reason to doubt that, in times
of great scarcity, the very poor in the villages bordering the Fleet also had recourse to the Chesil Bank pea.

Buda media, Dum. (better known as Lepigonum marginatum, Koch), is common on both shores, but is not typical. Syme (2 Eng. Bot., 132), says: "Whole plant glabrous." All our plants, however, have a noticeable feature in being decidedly glandular-hairy in the upper parts. Briggs (Flo. of Plymouth, 55), mentions a similar form near Plymouth, and Townsend (Flo. of Hampshire, 61), records the like as to the Isle of Wight ; see also specimens in Herb., Nat. His. Mus. Probably, then, this is the usual form in the south and west of Britain.

Nasturtium officinalis, var. siifolium, Reichb, was found by Mr. Mansel-Pleydell and myself some years ago growing plentifully in a reed-bed near Fleet House, close to the inner shore of the Fleet ; it is, in fact, a gigantic Water Cress, upwards of four feet in height. This variety has but two other records in Dorset, and boih those near the centre of the county.

Limonium occidentale, O. Kuntze, occurs at intervals on muddy spots near the base of the Chesil Bank, but is rare. Its natural home is on rocky cliffs; it is identical with the Limonium of the Portland and Lulworth cliffs. Can it be that the seeds are brought from thence by the tide ?

An instance of a rare maritime plant appearing here as a casual, is afforded by Raphanus maritimus, Sm.; it was observed many years ago and has twice since been seen near the Chesil Bank. Although probably a biennial, it was always wanting the following year. I think the seeds may have been washed from the Isle of Wight, where on some of the cliffs it is frequent.

We might have expected to find Cochlearia anglica, L.; it is, indeed, recorded in Dr. Pulteney's "Catalogue of Some of the More Rare Plants of Dorsetshire," published in 1799, as being common at Weymouth, but C. danica, L., was evidently mistaken for it. The like remark applies to C. officinalis, L., recorded in Flo. Dor., Ed. 2, for Portland; both are absent from this district.

The Juniper (Juniperus communis, L.), was found by Mr. Mansel-Pleydell and myself in some plenty on Langton Herring

Common, close to the Fleet. It is very fine in one of Mrs. Sparks' plantations near, where it attains four or five feet in height; elsewhere in South Dorset it occurs only, I believe, on Puncknowle Common.
'The flowers of that rare and beautiful plant, the Marsh Mallow (Althðea officinalis, L.), adorn, from July to September, the inner shore of the Fleet between Langton Herring and the Abbotsbury Swannery. It grows just above high-water mark and well maintains itself. Fortunately for science, the rustics of the villages bordering on the Fleet are ignorant, I believe, of its valuable demulcent and emollient properties. The country people sometimes gather the Common Mallow (Malva sylvestris, L.), for medicinal purposes, mistaking it for the Marsh Mallow. Doubtless, however, the monks of Abbotsbury were acquainted with its virtues, which were known to the ancients, and are mentioned by Pliny and Dioscorides. The Swannery is believed to be the furthest western station for the Marsh Mallow, as a native, on the south coast of England ; it is probably extinct in Devon, for, although recorded from Totnes upwards of $j 0$ years ago, there has been no confirmation since. It formerly grew in Cornwall, but is now extinct there also. A. officinalis is a good example of how our rarer plants become scarcer and scarcer, and perhaps ultimately extinct ; it suggests the care which should be taken to preserve them. Dr. Pulteney, writing some time between ${ }^{1} 765$ and 1799 of $A$. officinalis, in his Catalogue, Ed. 2, 88 , says that it was then to be found " on the seashore in several parts of Purbeck, in Poole Harbour, north coast, and, as I have been informed, about Portland and by the Fleets of Chesil Bank." Unfortunately, it is now, doubtless, extinct at all these stations, except " by the Fleets of Chesil Bank."

We must not forget to notice two scarce Spurges, the Sea Spurge and the Portland Spurge (Euphorbia Paralias, L., and E. portlandica, L.), which spring up among the loose pebbles, here and there, in some plenty. The Portland Spurge shuns the east coast, and is of decided western type, following the west coast of France, Spain, and Portugal. It is especially interesting to South

Dorset men, having been discovered in Portland in 1711 by the Rev. M. Stonestreet, and introduced into the British Flora by Dillenius, in the third edition of Ray's Synopsis, published in 1724.

A curious dwarf closely-matted nearly prostrate form of Geranium Robertianum, L., is abundant amongst the loose shingle. In its narrow petals and finely-divided leaf-segments it approaches $G$. modestum, Jord. Indeed, it is strange that neither the latter variety nor $G$. purpureum, (auct. ang.) has been recorded from this beach, both being south of England shingle plants.

Some years since, after a severe autumnal gale, I was fortunate in finding, thrown up on the shore near Langton Herring, Chara alopecuroides, Del (Lamprothamnus alopecuroides, Braun), which previously had been reported only from Newtown, Isle of Wight, where it is believed to be now extinct. Subsequent dredging showed it to be plentiful in the Fleet between Langton Herring and Abbotsbury. The plant is dark green, four to eight inches high, free from the calcareous incrustation so frequent in the Characeæ; it is the only British monœcious Chara having the stem composed of a single tube. It belongs to a group of cryptogamic plants which, owing to its remarkable structure, is of great value in the study of general biology. Into this we cannot now enter, merely pointing out that the so-called roots which fix the plant in the mud of the Fleet, and which broke away in that autumnal gale, are simply unicellular hairs; lengthenings, in fact, produced from the superficial cells of buried nodes. A paper, by Mr. Mansel-Pleydell, with plate, appeared, after the finding of the plant, in this Club's "Proceedings" for 1892 . It is the greatest botanical treasure of the district; there is now but one other known station for it in Britain.

But the fact to which I wish to draw your special attention is this, that at or near the Abbotsbury Swannery terminates the western range, in some cases in the south of England, in others in all Britain, of no less than four maritime plants (protected in

258 FLORA OF THE CHESIL BANK AND THE FLEET.
the Fleet by extraordinarily favourable local conditions), viz., the Shrubby Sea-Blite, the Sea Pea, the Marsh Mallow, and Chara alopecuroides.

May I conclude by saying that delightful experiences lie along the path of the field-botanist in tracing plant distribution and history; and, when he turns over the herbarium sheets, pictures of bygone rambles rise in the memory, awakening and recalling many happy hours, while they stimulate to new effort and research.

I append a list of the more interesting plants observed within the area we have been considering, distinguishing those found on the Chesil Bank, the inner shore, and the cliffs of the Fleet, respectively:--

LPlants marked O found on the Chesil Bank or outer shore of the Fleet.
" I " the inner shore of the
Fleet.
B " the Banks bordering the
inner shore of the
Fleet.]

Ranunculus Bandotii, Godr. I. The Fleet Abbotsbury ; Flo. Dor., Ed. 2.
R. sceleratus, L. I. Tidmoor Point Chickerell, to Cloud's Hill Abbotsbury, sparingly.

Glaucium flavum, Crantz. O. Opposite Wyke Regis.
Nasturtium officinale, R. Br., var. siifolium, Reichb. B. Reed-bed south of Fleet House. Vide ante, p. 255.

Cochlearia danica, L. O. Abundant. I. Less frequent.
Brassica Sinapioides, Roth. B. Frequent.
Lepidium campestre, R. Br. B. East Fleet.
[Crambe maritima, L. O. Pulteney, "On it" (i.e., Chesil Bank), " grows much Eryngo and, formerly, much Sea or Beach Cale, which latter is now almost all destroyed;" 2 Hut. His. Dor., Ed. 2, 364, published 1803. Extinct.]

Cakile maritima, Scop. O. Not common.
Raphanus maritimus, Sm. O. Vide ante, p. 255.
Polygala oxyptera, Reichb. B. Foxholes Wyke Regis. Rough ground near Langton Herring Coastguard Station; Mansel-Pleydell.
Silene maritima, With. O. Abundant, sometimes growing almost to the top of the pebbly bank. I. Langton Herring Marsh, at N.W. end of the parish, sparingly.

Arenaria peploides, L. O. Opposite Fleet Coastguard Station, scarce.

Sagina maritima, Don, O. East Fleet to Cloud's Hill. I. Herbyleigh to Langton Herring Marsh.
S. nodosa, Fenzl. O. Opposite Fleet Coastguard Station, (glabrous form).
Buda marina, Dum., var. neglecta, Kindb. O. I. Frequent.
B. media, Dum. (Lepigonum marginatum, Koch). O. Abundant. I. Frequent between Wyke Regis and Langton Herring. Vide ante, p. 255.
Tamarix gallica, L. O. Naturalised opposite Fleet House.
Althæa officinalis, L. I. About Tidmore Point. Abundant S.W. of Langton Herring Coastguard Station and by the bay to N.W.; thence less frequent to Swannery Abbotsbury. O. Absent. Vide ante, p. 256.
[Lavatera arborea, L. O. "This plant is recorded by Ray in Bishop Gibson's edition of Camden," (1724), "as a native of Portland and of Chesil Bank, where it still continues to be found, and from thence has been introduced into the gardens of the villages of the Island and the neighbourhood." Pulteney, A.D. 1799. Extinct.]

Linum angustifolium, Huds. B. Smallmouth to Langton Herring.
Geranium Robertianum, L. O. Vide ante, p. 257. Recorded in error in Flo. Dor., Ed. i, as var. purpureum, auct. angl.
Erodium maritimum, L'Hérit. O. Chesil Bank opposite Fleet ; Flo. Dor., Ed. 2.

Ulex Gallii, Planch. B. Near Fleet Coastguard Station.

Medicago denticulata, Willd. B. Between Smallmouth and Foxholes Wyke Regis, frequent.

Trifolium medium, L. O. Opposite Wyke Regis; Flo. Dor., Ed. 2.
T. squamosum, L. B. Frequent.
T. arvense, L. O. Opposite Fleet.
T. scabrum, L. O. Smallmouth to Abbotsbury, frequent.
T. hybridum, L. B. Near Foxholes.
T. fragiferum, L. B. Frequent.

Anthyllis Vulneraria, L. O. Smallmouth to Abbotsbury, frequent. B. Wyke Regis. West Fleet.

Lotus corniculatus, L., var. crassifolius, Pers. O. I. Frequent.
Vicia gemella, Crantz. B. Smallmouth.
V. lutea, L. B. Vide ante, p. 252. O. Absent.
V. bithynica, L., var. angustifolia, Syme. B. Vide ante, p. 252. Foot of Red Lane Wyke Regis.

Lathyrus Aphaca, L. B. Vide ante, p. 252.
L. Nissolia, L. B. Vide ante, p. 252.
L. maritimus, Bigel. O. Between opposite Portland Ferry Bridge and Wyke Regis village. Near West Fleet passage, abundant; then almost disappears to near Abbotsbury, where it is again abundant. Vide ante, p. 254.

Spiræa Filpendula, L. B. Tidmoor Point Chickerell.
Rubus umbrosus, Arrh. B. Not common.
R. rusticanus, Merc. B. Very common.
R. leucostachys, Schleich. B. Frequent.
R. diversifolius, Lindl. B. Frequent.
R. corylifolius, Sm. B. Common.

Poterium Sanguisorba, L. B. Common.
Potentilla Fragariastrum, Ehrh. B. Foxholes, sparingly. Rare.

Rosa spinosissima, L. B. Frequent; abundant at Wall Down Abbotsbury.
R. canina, L., var. dumalis, Bechst. B. Common.
R. stylosa, var. systyla, Bast. B. Common.
R. arvensis, Huds. B. Common.

Sedum acre, L. O. Frequent.
Callitriche hamulata, Kuetz., type, and C. pedunculata, D. C.
I. Langton Herring Marsh.

Eryngium maritimum, L. O. Fairly frequent.
Hydrocotyle vulgaris, L. I. Marshy spots Herbyleigh.
Conium maculatum, L. O. Opposite Fleet.
Apium graveolens, L. O. I. B. Wyke Regis to Abbotsbury, frequent.

Crithmum maritimum, L. O. Abundant, in patches. I. Opposite Wyke Regis, sparingly.

Enanthe pimpinelloides, L. B. Common. Vide ante, p. 252.
E. Lachenalii, C. Gmel. I. B. Smallmouth to Abbotsbury, very common.

Rubia peregrina, L. B. Between Wyke Regis and Lynch.
Aster Tripolium, L. O. I. Smallmouth to Abbotsbury, fairly frequent.

Matricaria inodora, L., var. salina, Bab. O. I. B. Very common.

Tussilago Farfara, L. O. Where the clay of Chesil Bank is exposed.

Senecio erucifolius, L. B. Smallmouth to Abbotsbury, common.

Carlina vulgaris, L. B. West Fleet to Abbotsbury, occasionally.

Centaurea nigra, L., var. decipiens, Thuill. B. Abundant, to the almost entire exclusion of genuina.

Cichorium Intybus, L. I. Red Lane Wyke Regis.
Sonchus arvensis, L. O. Vide ante, p. 254. B. Frequent.
Erica cinerea, L. B. Herbyleigh and near Langton Herring Coastguard Station (on Forest Marble).

Limonium occidentale, O. Kuntze. O. Opposite Langton Herring Hythe; Hon. Mrs. Evelyn Cecil, 1905. Opposite Wyke Regis village, 1876, but soon disappeared. Rare. Vide ante, p. 255.

Armeria maritima, Willd. O. I. Frequent.

Glaux maritima, L. O. I. Smallmouth to Abbotsbury, plentiful.

Samolus Valerandi, L. I. B. Smallmouth to Abbotsbury. O. Less frequent.

Erythræa Centaurium, Pers. O. Opposite East Fleet. B. Wyke Regis to Abbotsbury; common.
E. pulchella, Fr. I. B. West Fleet to Abbotsbury; abundant at Wall Down.

Cynoglossum officinale, L. B. Herbyleigh.
Echium vulgare, L. I. Foxholes.
Solanum Dulcamara, L., var. littorale, Raab. B. Smallmouth to Abbotsbury, common.

Var. marinum, Bab., Chesil Bank ; Flor. Dor., Ed. 2. Not confirmed since.

Hyoscyamus niger, L. O. Chesil Bank Abbotsbury; Flo. Dor., Ed. 2.

Volvulus Soldanella, Jung. O. "Sandy places at the base of the Chesil Bank between Portland and Abbotsbuty; " Flo. Dor., Ed. 2. Beach Abbotsbury; Rev. F. W. Galpin. Between Smallmouth and Abbotsbury I have observed it cnly opposite Port Sanitary Hospital and Fleet. Apparently rather scarce.

Veronica officicalis, L. B. Foxholes, sparingly. Rare in area.
Calamintha Clinopodium, Spenn. B. Langton Herring to Cloud's Hill.

Plantago maritima, L. O. I. B. Smallmouth to Abbotsbury.
Chenopodium murale, L. I. Near Fleet House.
C. rubrum, L. I. Smallmouth near Port Sanitary Hospital, 1885, disappeared shortly afterwards; west side of Wall Down to Swannery Abbotsbury ; fine and plentiful.

Beta maritima, L. O. I. B. Smallmouth to Abbotsbury, very common.

Atriplex littoralis, L. O. Near high-water mark, Smallmouth to Abbotsbury, not common. I. Less frequent, Foxholes to Abbotsbury.
A. patula, L., var. angustifolia, Sm. O. I. B. Common.
A. hastata, L. O. I. B. Common.
A. deltoidea, Bab. B. Frequent.
A. Babingtonii, Woods. O. Abundant just above high-water mark. I. B. Frequent.
A. portulacoides, L. O. Smallmouth to Abbotsbury, abundant. I. Rather scarce ; noted at Wyke Regis, Tidmoor Lane, Herbyleigh and Swannery Abbotsbury.

Salicornia herbacea, L. O. I. Smallmouth to near Abbotsbury, at intervals. I. Herbyleigh, abundant.

Var. procumbens, Moq. Infrequent.
S. radicans, Sm. I. Near Port Sanitary Hospital. Vide ante, p. 252.

Suæda fruticosa, Forsk. O. Smallmouth to Abbotsbury; abundant opposite Wyke Regis village and West Fleet. I. Very sparingly between Smallmouth and Herbyleigh. Vide ante, p. 253.
S. maritima, Dum. O. Smallmouth to Abbotsbury, common. I. Less frequent.

Salsola Kali, L. O. Scarce. I. Rather scarce.
Polygonum aviculare, var. littorale, Link. O. Chesil Bank Abbotsbury ; Flo. Dor., Ed. 2.

Euphorbia Paralias, L. O. Between Smallmouth and Fleet; locally abundant between opposite Port Sanitary Hospital and Wyke Regis village. I. Apparently absent.
E. portlandica, L. O. Beach Abbotsbury ; Flo. Dor., Ed. 2. Level reaches of shingle between opposite Port Sanitary Hospital and Wyke Regis village, infrequent. Vide ante, p. 256.

Juniperus communis, L. I. Vide ante, p. $255^{\circ}$
Allium vineale, L., var. compactum, Thuill. B. Cloud's Hill.
Juncus Gerardi, Loisel, O. I. Smallmouth to Abbotsbury, common.

Sparganium ramosum, Huds. I. Swannery Abbotsbury.
Triglochin maritimum, L. O. Fleet to Langton Herring. I. Frequent; Swannery Abbotsbury.

Ruppia spiralis, Hartm. The Fleet towards Abbotsbury, abundant. I. Swannery Abbotsbury.

Zannichellia palustris, L. O. I. Ditches, Chesil Bank Abbotsbury; Flo. Dor, Ed. 2.

264 FLORA OF THE CHESIL BANK AND THE FLEET.
Z. pedunculata, Reichb. I. Swannery Abbotsbury; E. M. Holmes.

Zostera marina, L., var. angustifolia, Fr. The Fleet, abundant.
Scirpus 'Tabernæmontani, Gmel. I. Langton Herring Marsh. Swannery Abbotsbury.
S. maritimus, L. O. Not seen. I. Frequent, extending to Swannery Abbotsbury.
[Cladium jamaicense, Crantz. I. Ditches by the Fleet; Pulteney. Extinct.]
Carex divisa, Huds. I. Wyke Regis. Wall Down; not common.
C. arenaria, L. O. Common.
C. vulpina, L. C. I. Smallmouth to Abbotsbury, common.
C. distans, L. I. Wyke Regis to Langton Herring, common ; then infrequent to Cloud's Hill; then common to Swaunery.
C. extensa, Good. I. Smallmouth near Port Sanitary Hospital, rare.

Agrostis palustris, Huds., var. stolonifera, L. O. I. Flo. Dor., Ed. 2.
A. vulgaris, With., var, pumila, L. B. Wall Down.

Gastridium australe, Beauv. B. Herbyleigh. Near Langton Herring Coastguard Station. Wall Down.
Avena pratensis, L. B. Between Fleet House and Langton Herring.
A. fatua, L. B. Between Wyke Regis and Chickerell; Flo. Dor., Ed. 2.
Koeleria cristata, Pers. B. West Fleet and Langton Herring, abundant.

Glyceria maritima, Mert. \& Koch. O. I. Frequent.
Festuca procumbens, Kunth. O. I. Frequent.
F. rigida, Kunth. O. I. B. Frequent.
F. rottbœellioides, Kunth. O. Smallmouth to Abbotsbury, common. B. West Fleet.
F. uniglumis, Soland. O. Sandy ground near Smallmouth. Vide ante, p. 252.
F. elatior, L. B. Common.

Bromus commutatus, Schrad. B. Cloud's Hill. Brachypodium pinnatum, Beauv. B. Abundant. Agropyron repens, Beauv., var. barbatum, Duval-Jouve. B. Common.
A. pungens, Roem. \& Schult., var. littorale, Reichb. O. Opposite Wyke Regis; Flo. Dor., Ed. 2. B. Frequent.
A. acutum, Roem. \& Schult. B. Frequent.
A. junceum, Beauv. O. Between Smallmouth and Fleet, scarce.

Lepturus filiformis, Trin. O. I. Smallmouth to Abbotsbury, common.

Equisetum maximum, Lam. I. Shore Cloud's Hill, remarkably abundant. B. Frequent.

Chara alopecuroides, Del. Vide ante, p. $257^{\circ}$



## Zieport on gixst

Appearances of $33 i x \delta s$, $\mathfrak{d n s e c t s , ~} \mathfrak{d c}$., ant fhe Bixut gilowexing of Zfants

In Dorset during 1904.

By NELSON M. RICHARDSON, B.A.


are as follows; they are denoted in the Report by initials :-
(N. M. R.) Nelson M. Richardson, Montevideo, near Weymouth.
(E. R. B.) Eustace R. Bankes, Norden, Corfe Castle.
(E. S. R.) E. S. Rodd, Chardstock House, Chard.
(W. H. D.) Rev. W. Hughes D'Aeth, Buckhorn Weston Rectory, Wincanton.
(J. R.) Rev. J. Ridley, Pulham Rectory.

On looking at the map of Dorset, it will be seen that the above stations, though few in number, could hardly be better placed so as to cover the different parts of the county, and the
new district of Pulham will, no doubt, in the hands of a careful observer, yield many interesting notes.

I have received the following

## Notes on Rare Birds in 1904.

Red-footed Falcon (Orange-legged Hobby), (Falco vespertinus, L.).-A young male of this species, often misnamed the "Orange-legged Hobby," was shot at Keysworth Farm, near Wareham, by Mr. George L. Pain on May 19th, 1904. It was identified by Rev. W. A. Newman, of Winterbourne Kingston, and recorded by him on page 8 of the Dorset County Chronicle of May 26th, 1904. Mr. Pain, whose sole object in shooting the bird was to protect his young chickens, informs me that a pair of Red-footed Falcons frequented Keysworth for some days before the one was shot, and that the other remained for a few days longer after the loss of its companion. This extremely rare summer visitor to Britain is not included in the late Mr. J. C. Mansel-Pleydell's "Birds of Dorsetshire," published in 1888, and does not appear to have been ever previously observed in the county (E. R. B.).
[It should be noted that the only English name used for this species in Morris' British Birds is the "Orange-legged Hobby" (Vol. I., p. 107, Ed. 1851) (N. M. R.).]

Pied Flycatcher (Muscicapa atricapilla).--One was seen in the garden at Montevideo, Chickerell, on May 24th (N. M. R.).

Moorhen (Gallinula chloropus).-The following appeared in the Graphic of December 1 oth, 1904 :-" A perfectly white water hen has been killed at Stour, in Dorset. Albinism happens to almost all animals and birds, but is of extreme rarity in this species. The specimen has been secured for South Kensington" (N. M. R.).

Lesser Spotted Woodpecker (Dendrocopus minor).-On July 2nd I watched one near Pulham Rectory. The tapping is frequently heard, though the bird is rather shy and hard to get sight of (J. R.).

## General Notes.

Fox-Cubs out and running about in a cover on the Marshwood Estate in the Cotley country in February. This is an early record (E. S. R.).

Squirrel Eating Eggs.-On May 15 th I watched a squirrel eating eggs from a chaffinch's nest quite close (J. R.).

Pied Wagtail Cutting Off Fly's Wings.-On July iith, 1904, a Wagtail was collecting insects on my lawn and taking them to its young. Wishing to see its method of manipulation, I killed a bluebottle fly and placed it in a sitting attitude in a spot where the bird was likely to come. It returned to the lawn for more food, and soon saw the bluebottle at about a yard off, which it seized with a sudden rush. It then stopped at about six inches from the spot where the insect was placed and manipulated it in some way with its beak, but so quickly that I could not see exactly what it was doing. However, on going up after the bird had flown away to its nest, I found the two wings of the bluebottle neatly cut off at the base. I could find no trace of the legs, so that these were probably untouched. It seems as if this were the usual way in which not only birds, but also wasps, treat their prey when it consists of winged insects and when they have to carry them for any distance, as Mrs. Richardson has seen wasps thus engaged. It would be interesting to notice whether they always cut off the wings before eating insects when they are consumed on the spot. In bats it is, of course, a well-known habit, and one finds quantities of moths' wings (not any legs, however), in any place they frequent, such as the covered porch at the entrance of my house (N. M. R.).

Sparrows Destructive to Wallflower Bloom.-In the spring my beds of wallflowers suffered greatly from the constant attacks of flocks of house-sparrows, which ripped up large numbers of unopened flower-beds and devoured their contents, together with parts of some of the petals themselves (E. R. B.).

Plague of Snails.-As 1903 will ever be memorable for the prodigious numbers of the common garden slug (Agriolomax
agrestis) that appeared in the Corfe Castle district and destroyed much garden produce, so 1904 will long be remembered for a no less remarkable plague of the common large snail (Helix aspersa) in the same neighbourhood. All kinds of snails seemed more plentiful than usual, but this species was in far greater abundance than I have ever previously seen it, though fortunately the damage caused by it was trifling. One met with it everywhere, and until they were collected and destroyed large numbers lived in the ivy growing against the front of my house, and at first caused some excitement by the peculiarly weird musical sounds that were heard in the house at night, whenever the window panes happened to be wet on the outside, and some enterprising snails were enjoying a promenade thereon. The noise made by a " musical snail," though intermittent, somewhat resembles that made when the finger is very slowly moved round the moistened edge of a glass bowl (E. R. B.).

Plague of Gooseberry Sawfly.-Throughout the summer the gooseberry and currant bushes in the gardens round Corfe Castle were attacked by hosts of larvæ of the Gooseberry Sawfly (Nemalus grossularixe), which, except where collected and destroyed, quickly devoured the whole crop of leaves on every bush, and thus caused the swelling fruit to shrivel up, instead of ripening. Fresh families of larvæ, doubtless representing a succession of broods, were continually hatching out over a period of many weeks, during which eggs and larvæ of all sizes were being frequently coliected by hand by the thousand off my own gooseberry and currant bushes, for the former of which the Sawfly showed rather a preference. If a sharp watch is kept, especially on the lower parts of the bushes, for leaves that are assuming a skeletonized appearance, a large number of larvæ and eggs can be destroyed with a single leaf, the semitransparent whitish eggs being laid end to end in rows along the principal ribs on the underside of the leaf, which the newlyhatched larvæ proceed to reduce to a skeleton before moving eisewhere and gradually distributing themselves over the bush.

This visitation was by far the worst of its kind that I have ever known, and the only satisfactory way of dealing with it seems to be to have the larvæ collected by hand (E. R. B.).

Scarcity of Lepidoptera.-The beautiful summer of 1904 proved sadly disappointing to the Lepidopterist, for, although the weather was, on the whole, quite ideal for collecting purposes, both Macro and Micro-lepidoptera were in general $1^{\text {amentably scarce, numbers of the better class species being }}$ either not met with at all or only very sparingly. This was by no means surprising, seeing that the previous year was one of the very worst ever known and that a few seasons must necessarily elapse before insects, reduced almost to the vanishing point, can recover their average numbers. Exceptions were, of course, to be noticed, as is always the case even in the most unproductive years, and some few moths, in addition to a good many butterflies, were decidedly more plentiful than usual. The most notable feature was, perhaps, the sudden appearance in East Dorset, towards the end of May, of some numbers of the usually very rare Silver-striped Hawk-moth (Phryxus livornica, Esp.), of which a large flight obviously reached England from the Continent at that time. Several specimens were captured in the county, but various others that were seen eluded capture owing to their amazingly swift flight that takes place between sunset and sunrise. Through Dr. G. E. J. Crallan's kindness, our President and the writer each received four eggs laid by a female taken at Ferndown, near Wimborne, and from these the former reared one and the latter three lovely moths, which, so far as we are aware, are the only ones that have been bred from some numbers of eggs obtained from specimens caught in Britain in 1904. I was fortunate in finding in East Dorset two species of moths that have not previously been found in the county (one of them, viz., Eupithecia scabiosata, Bkh. (subumbrata, Gn.), has, however, been erroneously recorded therefrom more than once), and made several other most interesting captures and discoveries, which will be chronicled in due course (E. R. B.).

Gorse Bloom Exceptionally Plentiful.-In spite of the phenomenal abundance of gorse bloom in the spring of 1903, which one would have expected to have somewhat exhausted the bushes, and the fact that the abnormally cold and sunless summer that followed was anything but conducive to the ripening of the wood, gorse bloom was again unusuaily plentiful in Purbeck. The show of it, although far inferior to that of the previous year, when a large proportion of the bushes were smothered in blossoms crowded thickly and tightly together, was decidedly above the average, and very beautiful (E. R. B.).

## Notes on Weather.

Chard.-A loveiy summer and autumn. August 3rd was the hottest day, about 85 degrees in the shade. Corn harvest began at Chardstock on July igth. The week October 16th to 22nd was warm, bright, and summer-like, and November 5th a remarkably bright, warm day. At the end of November there was a record frost of about 20 degrees at Chardstock for one or two nights. Ice bore on some of the ponds; the frost stopped hunting for a week. Then all through December fine, dry, and very mild weather, with dense fog for a week. A very good farmer's year all through for weather (E. S. R.).

Wimborne.-Note by Rev. J. Cross (Baillie House, Wimborne). The late Mr. C. J. Parke, of Henbury House (died 1893), told me that, from his observation and notes made in his diary for over 50 years, there was in nearly every year a period of wind and rain between the Ist and ioth of August.

Pulham.-Thunder and lightning night of January 12 th, with strong S.W. wind. Heavy thunder and lightning, W.S.W., March 29th, about 2 p.m., with heavy hail, after fine morning. Lightning evening of April 12 th, after very fine day, W.S.W. Heavy lightning night of July irth, N.E., after several very hot days. Heavy lightning in afternoon of July 19th, heavy rain after. Little thunder and lightning in evening of July 25th, from N.E. to S.W. Heavy thunder and lightning in evening of

272 FIRST APPEARANCES OF BIRDS, INSECTS, ETC.
August 3rd. This, so far, the hottest day of year. Heavy thunder and lightning in morning of August 4th, very hot, S.W. Heavy thunder and lightning in evening of August 24th. On October 7 th an exceedingly heavy storm (N.W.) of wind and hail and little thunder; it came quite suddenly; hail swept on like a wall. On September 14th some of heaviest showers I ever saw, S. to W. (J. R.).

Additions to Report for 1903 (See "Proc.," Vol. XXV., p. 275, \&c.).

Rev. J. Ridley has sent in several notes for 1903, amongst which are the following :-

Squirrel Eating Eggs.-I had been for some time observing a chaffinch's nest in larch over a garden path, and on May ${ }^{15}$ th, 1903 , I found a squirrel sitting by the nest enjoying a breakfast of eggs (J. R.).

Goldcrests (Regulus cristatus).-Young Goldcrests left their nest in Pulham Rectory garden on June 6th, 1903 (J. R.).

Cuckoo in Robin's Nest.-I photographed a young Cuckoo in a Robin's nest June 1oth, 1903 (J. R.).

Rats Attacking Rabbits (" Proc." XXV., p. 278).-I regret that I accidentally omitted to state that this interesting note was contributed by Mr. Eustace R. Bankes (N. M. R.).

The Tables of first appearances. \&c., are appended :-
Earliest Dorset Records of Plants in Flower in 1904.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \& \& \& Dorset. \& N. M. R. Weymouth. \& \begin{tabular}{l}
E. R. B \\
Corfe Castle.
\end{tabular} \& E. S. R. Chard. \& W. H. D. Buckhorn Weston \& \[
\begin{aligned}
\& \text { J. R. } \\
\& \text { Pulham. }
\end{aligned}
\] \\
\hline Wood Anemone \& . \& \& Mar. 19 \& Mar. 26 \& Mar. 19 \& Ap. 14 \& Mar. 28 \& \\
\hline Masser Celandine ... .. \& .. \& .. \& \({ }_{\text {Jan. }}^{\text {Jan. }}{ }^{21}\) \& \begin{tabular}{l} 
Mar. \\
Ap. \\
\hline 18 \\
\hline 8
\end{tabular} \& Feb. \({ }_{\text {Mar }} 12\) \& Mar. \({ }_{\text {Ap }}{ }^{8}\) \& Jan.
Feb. 21 \& (3) \\
\hline Dog Violet.t. \({ }^{\text {den }}\) \& \(\because\) \& \(\because\) \& Mar. \({ }_{7}{ }^{6}\) \& \({ }^{\text {Ap. }}\) Ap. \({ }^{4}\) \&  \& \& Mar. 26 \& \\
\hline  \& \& \(\because\) \& Ap. \({ }_{\text {Ap }}{ }^{7}\) \& \begin{tabular}{l} 
Ap. \\
Ap. \\
\hline 26
\end{tabular} \& Ap. 24 \& \& \& Ap. 13 \\
\hline Horse Chestnut .. \& \& \(\left\{\begin{array}{l}\text { Lieaa } \because \\ \text { klower }\end{array}\right.\) \& Ap. 11 \& \& \& Ap. 14 \& \({ }_{\text {Ap }}{ }^{\text {Pay }} 11\) \& \\
\hline Bush Vetch \& \& \& Ap. \({ }^{\text {Ap }}\) (14 \& May \({ }_{9}^{4}\) \& Ap. \({ }^{22}\) \& Ap. 14 \& Ap. 14 \& \\
\hline Black Thorn \& \& \(\left\{\begin{array}{l}\text { Leaf } \text { Flow } \\ \text { Flower }\end{array}\right.\) \& Mar. 19 \& Ap. \& Mar. 19 \& Mar. \({ }^{23}\) \& Ap. 14 \& \\
\hline Hawthorn .. \& \& Leaf. \& Mar. 20 \& Ap. \({ }^{\text {a }}\) \& Mar. 20 \& \& Ap. 1 \& \\
\hline Ivy \& \& \{ Flower \& May \({ }^{8}\) \& May 8 \& May 12 \& . \& May 13 \& May 15 \\
\hline Dogwood .. \(\quad\). \& \& \& June 11 \& June 15 \& .. \& .. \& June 11 \& (4) \\
\hline Elder \& \&  \& Jan.
May
14 \& Jan.
May
14 \& May 24 \& \& May 30 \& \\
\hline Wild Teasel .. \& \& \& July 20 \& \& July 20 \& \(\cdots\) \& \& (4) \\
\hline Devil's-bit .. .. \& \& . \& July 1 \& July \& \& \& July 1 \& \\
\hline Knapweed... \& \& Lieaf . \({ }^{\text {a }}\) \& June \({ }^{\text {Mar. }} 29\) \& July \({ }^{8}\) \& \& \& Mar. 29 \& \\
\hline Field Thistle \& \& Flower \& July 18 \& July \(5^{*}\) \& June 30 \& . \& July \({ }^{18}\) \& \\
\hline Coltsfoot \& \& \& \({ }_{\text {Fuly }}{ }_{\text {Feb. }}{ }_{2}\) \& Feb. \({ }^{\text {F }}\) July \({ }^{\text {c }}\) \& Mar. 10 \& \(\because\) \& \({ }^{\text {July }}\) - \({ }_{2}\) \& \\
\hline Ox-eye Daisy \& \& \& May 14 \& June 13 \& May 14 \& \(\cdots\) \& May \({ }^{21}\) \& \\
\hline Mouseear Hawkweed \& \& .. .. \& Mar.
July

13 \& June 7 \& May 26 \& \& \& <br>
\hline Greater Bindweed ${ }^{\circ}$ \& \& ..... \& July 2 \& July 14 \& July 23 \& .. \& July \& <br>
\hline $\underset{\text { Wround Iny }}{\text { Water Mint }}$ \& \& .. $\quad$. \& \& \& Ap. \& \& \& <br>
\hline Wych Elm $\because \because$ \& \& $\cdots$ \& Mar. 17. \& Mar. 18 \& \& .. \& Mar. ${ }^{\text {J }}$ Jan ${ }^{\text {2 }}$ \& <br>
\hline Hazel (Red female flowers) \& \& .. \&  \& \& Mar. 30 \& Ap. ${ }^{15}$ \& Jan. ${ }^{\text {Jab }}$ \& <br>
\hline Spotted Orchis
Bluebell \& \& ... \& Ap.

Mar. ${ }^{18}$ \& \begin{tabular}{l}
May <br>
Ap. <br>
\hline 8

 \& Ap. 19 \& \& 

May <br>
Ap. <br>
\hline

\end{tabular} \& \[

$$
\begin{aligned}
& \text { Ap. } 16 \\
& \text { Mar. } \\
& \hline 28
\end{aligned}
$$
\] <br>

\hline
\end{tabular}

> * Has been in flower some time.



274 FIRST APPEARANCES OF BIRDS, INSECTS, ETC.
First Appearances of Birds in Dorset in 1904.

|  |  |  |  |  |  | Dorset. | N. M. R. <br> Weymouth. | E. R. B. Corfe Castle. | E. S. R. Chard. | W. H. D. Buckhorn Weston. | $\begin{gathered} \text { J. R. } \\ \text { Pulham. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Flycatcher .. | .. | . | $\cdots$ | $\cdots$ |  |  |  | . | May |  |  |
| Fieldfare Blackbird | $\ldots$ | $\because$ | $\because$ | $\cdots$ | $\cdots$ | No record. Feb. 11 N | (5) | Feb. 11 N . |  | Mar. 27 N . |  |
| Redwing .. | . |  | $\cdots$ | .. |  | No record. |  |  |  |  |  |
| Nightingale | .. | .. | . | . | $\left\{\begin{array}{l}\text { S. } \\ \text { L }\end{array}\right.$ | Ap. 16 S . | Ap. 19 | May 10 S . (1) | Ap. 16 S . | . | $\begin{aligned} & \text { Ap. } 18 \mathrm{~s} . \\ & \text { June } 15 \mathrm{l} \end{aligned}$ |
| Wheatear .. | . | . | . | . | .. | No record. |  |  |  |  |  |
| Willow Wren | .. | .. | .. | .. |  | Ap. 12 |  | Ap. 12 |  |  |  |
| Chiff-chaff .. | . | . | . | . | $\left\{\begin{array}{l}\text { S. } \\ \text { L. }\end{array}\right.$ | Ap. ${ }_{\text {Sep. }}{ }^{5} \mathrm{~S}$ S. | $\begin{aligned} & \text { Ap. } \quad 12 \mathrm{~s} . \\ & \text { Sep. } \\ & \hline \mathbf{L} \end{aligned}$ | Ap. 6 S . | Very late s. | Ap. 5 | Ap. 13 s . |
| Whitethroat | $\cdots$ | . | $\cdots$ | . | , | Ap. 12 | Ap. 12 |  |  |  |  |
| Skylark ... | $\ldots$ | $\cdots$ | $\cdots$ | .. | $\cdots$ | $\xrightarrow[\text { Jan. } 17 \mathrm{~s} \text {. }]{\text { No record. }}$ | Jan. 17 S . |  |  |  |  |
| Cuckoo | .. | . | .. | . | $\{\mathrm{s}$. | Ap. 13 s . | Ap. 27 s . | Ap. 13 s. (2) | Ap. 14 S. (3) | Ap. 14 S. |  |
| Swallow .. |  |  |  |  |  | ${ }^{\text {June }}$ Ap 26 L L. | Ap. ${ }^{\text {a }}$ (4) | Ap. 4 | Ap. 12 | Ap. 9 |  |
|  | .. | .. | . | .. | ( L. | Oct. 17 L . |  |  |  |  | Oct. 17 L . |
| Sand Martin Swift | $\cdots$ | $\cdots$ | $\because$ | $\cdots$ | $\cdots$ | Norecord. | May 14 | May 8 |  |  |  |
| Nightjar .. | $\ldots$ | $\ldots$ | $\cdots$ | .. | . | Ap. 24 | Ap. 24 | May 21 s. |  |  |  |
| Turtle Dove | .. | .. | .. | . | .. | May 11 |  | May 13 | May 11 |  |  |
| Corncrake .. | $\because$ | $\cdots$ | $\because$ | $\because$ | $\cdots$ | No record. |  |  |  |  |  |
| Wryneck .. | . | $\cdots$ | . | .. | $\ldots$ | Ap. 18 | .. | Ap. 18 |  |  |  |

Y. Young birds. L. Last seen or heard.

First Appearances of Insects; \&c., in Dorset in 1904.

|  |  |  |  | Dorset. | N. M. R. <br> Weymouth. | E. R. B. Corfe Castle. | $\begin{aligned} & \text { E. S. R. } \\ & \text { Chard. } \end{aligned}$ | W. H. D. Buckhorn Weston. | $\begin{gathered} \text { J. R. } \\ \text { Pulham. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rose Beetle | . | . | . | No record. |  |  |  |  |  |
| Cock-chafer .. | $\because$ | .. | .. | May 15 | May 15 | May 29 |  |  |  |
| Fern Chafer Bloody-nose Beetie | $\because$ | .. | $\because$ | Norecord. | Ap. 16 |  |  | - | (7) |
| Glow-worm .. | .. |  | . | May 12 |  | May 12 (3) |  |  |  |
| Common Hive Bee ( $k$ ) | $\cdots$ |  | . | Feb. 22 | Mar. 8 (1) | Mar. 15 |  | $\cdots$ | Feb. 19 |
|  | $\cdots$ | .. | $\cdots$ | Ap. 11 | $\mathrm{May}^{4}{ }^{4}(2)$ | Ap. ${ }^{11}$ | scarce (6) |  | Ap. 19 |
| Large White Butterfly .. | $\because$ | $\cdots$ | $\because$ | May <br> Ap. <br> 9 | May <br> Ap. <br> 10 | Apy Ap. 17 | $\because$ | Ap. 9 | Ap. 9 |
| Orange-tip Butterfly $\ldots$ | $\ldots$ |  | .. | May 15 | May 22 | May 15 |  |  |  |
| Meadow-brown Butterfly | $\cdots$ | .. | $\cdots$ | June 17 | June 22 | June 17 |  |  |  |
| $\begin{aligned} & \text { Wall Butterfly } \\ & \text { Briustone }(h)\end{aligned} \quad .$. | $\cdots$ |  | $\because$ | May 22 Ap. |  | May $22(4)$ | - | Ap. 5. | Ap. |
| Painted Lady (h) .. |  | $\because$ | $\cdots$ |  |  | May ${ }^{(514}$ |  |  |  |
| Cinnabar Moth ... | $\because$ |  | $\cdots$ | May ${ }^{14}$ | May July 10 | May Aug. 4 |  |  |  |
| Viper ( $k$ ) .. ${ }^{\text {.. }}$ | $\because$ | $\because$ | $\because$ | Ap. ${ }^{6}$ |  | Ap. 6 |  |  |  |
| Frog Spawn .. | . |  | .. | No record. |  |  |  |  |  |

## (h.) After hibernation.

Notes. - Small Tortoiseshell ( $h$ ) April 6. Red Admiral (h) May 22. Myrmica rubra running about in a lively manner (N. M. R., Weymouth). (1) Very lively on Dec. 15 (N. M. R.). (2) Workers lively at ivy blossom Dec. 2 (N.M. R.). (5) (3) Glow-worm found in daytime on May 12 ; $\begin{array}{lll}\text { noticed shining } \\ \text { Aug. } 7 \text { (E. R. B.) } & \text { (6) Workers fling about Oct. 24. } & \text { (7) Bloody-nose Beetle seen Dec. } 1 \text { (J. R.). }\end{array}$

## INDEX TO VOL. XXVI.

## By E. W. YOUNG.

Abbott, Dr. G., xxvii.
Acland, Captain, xlvi.
Arachnida, New and Rare Britısh, xl., 40
List of, 42
Notes and Descriptions of, 57
Australia, Naturalist in, xxxiii., 160
Birds of, 170
Botany of, 163
Reptiles of, 169
Zoology of, 167
Bankes, Eustace, xxxix., 266
Barnes, Rev. W., Poems by, xxvii., xxxviii, 222
Rev. W. Miles (Hon. Editor), xxvii., xxviii.,lix.,lxiv., lxix., 3, 220, 222
F. J., xxxix., xliii.,

Rev. Keith, 219, 290
Barrett, W. Bowles, xlii., lxv., Ixvii., 251
Barrow Digging, at Martinstown, 6
Bath, meeting at, lii.
Municipal regalia and charter, hi. Roman Baths, liii.
Abbey Church, lv.
Museum, lvii.
Victoria Park and Botanic Gardens, lvii.
Bible and Prayer Books, exhibits of old (16th and 17 th cent.), xxvii.
Bingham's Melcombe, Manor House, xl.
Birds, \&c., First Appearances of, 267
(Tables), 273-5
Lesser Spotted Woodpecker, 267 Moorhen, 267
Pied Flycatcher, 267
Red-footed Falcon, 267
Bond, F. Bligh, xlviii.
Boyd, Canon, Iv.
Bradford-on-Avon, meeting at, xlviii.
Antiquities of, xlviii.

Barton Farm, xlviii.
Bridge, xlix.
Churches, xlix., 1.
Chantry, lii.
Priory, lii.
British Association, report of delegate to, XXV., xlv.
Broadwey, church band of, sli.

Brownsea Island, lviii, lxi., 187
Brunsden, Mr., xlii.
Cambridge, Rev. O. P. (Vice-President), xl., 40
Came, church choir, xli.
Canford, The Plague at, 158.
Canute, King, raid on Dorset, \&c., coast, 187
Cecil, Lord Eustace (Vice-President), xxix., lxxiii.

Evelyn, M.P., xxxii.
Cerne Abbey, xlv., 187
Chara alopecuroides, lxvii.
Chesil Beach, Ixiii., Ixvii., 251
Chartularies of Dorset Abbeys-
Cerne, xly.
Milton, xlv.
Church Bands and Village Chorrs, xl., 172

Music played by, 176
Musicians' galleries, 179
Church Bells, Dorset, 205
Abbotsbury, 213
Affpuddle, 211
Alton Pancras, 205, 211
Arne, 211, 218
Beaminster, 216
Bere Regis, 214
Bincombe, 211
Bingham's Melcombe, 206
Broadwindsor, 209, 216
Buckland Newton, 210
Burton Bradstock, 211, 212
Canford, 216
Cattistock, 219
Caundle Bishop, 212
Stourton, 207, 211, 216, 219
Cerne Abbas, 216
Nether, 205, 207
Chaldon Herring, 211, 212, 219
Chardstock, 211, 213, 216
Compton Abbas, 219
Nether, 211, 219
Valence, 211
Coombe Keynes, 213
Corfe Castle, 217, 218
Dorchester, Holy Trinity, 216

St. Peter, 216

Church Bells, Dorset-continued.
Durweston, 217
Fifehead Magdalen, 211
Neville, 211
Folke, 216, 217
Fontmell, 212
Forde Abbey, 210, 215
Fordington, 211
Gillingham, 216
Halstock, 211
Hampreston, 216
Handley, 211
Hazelbury Bryan, 206, 207
Hilton, 211, 213
Hinton Parva, 219
St. Mary, 212
Holwell, 212
Hooke, 210
Ibberton, 212
Iwerne Courtney, 211
Langton Matravers, 210, 217, 218
Lillington, 211
Little Bredy, 207
Loders, 213
Lulworth, East, 211
Lytchett Matravers, 215
Minster, 217
Maiden Newton, 207
Manston, 211, 213
Mappowder, 216
Marnhull, 211
Milton Abbas, 205, 210
Minterne Magna, 221
Morden, East, 207
Moreton, 218
Okeford Fitzpaine, 214, 215

Child, 213
Osmington, 205, 206, 211
Owermoigne, 211
Pimperne, 217
Poole, 218
Portland, St. George, 218
Powerstock, 205
Preston, 213
Puddlehinton, 212
Puddletown, 211
Puncknowle 214
Radipole, 212
Rampisham, 212
Ryme Intrinsica, 210
St. Margaret Marsh, 211
Shaftesbury,
Holy Trinity, 212
St. Peter, 214, 216
Shapwick, 204, 208, 209
Sherborne, 214, 215
Shillingstone, 211
Silton, 205
Spettisbury, 211
Stafford, West, 211
Stalbridge, 216

Church Bells, Dorset-continued.
Steeple, 213
Stock Gaylard, 205, 206
Stoke Abbot, 216 East, 218
Stourpaine, 211
Stour Provost, 217
West, 216
Stratton, 211
Studland, 211, 216
Sturminster Newton, 218
Swanage, 211
Tarrant Crawford, 211
Keynston, 206
Moukton, 211
Thornford, 211
Todbere, 216
Upwey, 211
Whitchurch Canonicorum, 213
Wimborne Minster, 207, $213,214,215$.

St. Giles, 216
Winterborne Kingston, 217 Stickland, 211 Whitchurch, 216 Zelstone, 212, 215
Witchampton, 217
Wraxall, 206
Yetminster, 211, 219
Church Goods, Dorset (1552), 101
Abbotsbury, 114
Abbotstoke, 116
Allington, 122
Askerswell, 108
Batcombe, 139
Beaminster, 114
Belchallwell, 129
Bere Hackett, 135
Bettiscombe, 127
Bothenhampton, 111
Bradford, 141
Bradpole, 125
Bridport, 109
Broadwindsor, 123
Buckhorn Weston, 151
Burstock, 124
Burton, 157
and Shipton, 106
Canford, 158
Cattistock, 118
Caundle, Bishop, 149
Marsh, 136
Purse, 150
Stourton, 150
Chardstock, 103
Charminster, 156
Charmouth, 119
Chedington, 113
Chelborough, 126

| Church Goods, Dorset(1552)-continued. Chideock, 107 <br> Chilcombe, 128 <br> Chetnole, 141 <br> Chilfrome, 120 <br> Clenstone, 103 <br> Compton Abbas, 139 <br> Nether, 135 <br> Over, 133 <br> Valence, 157 <br> West, 110 <br> Corfe Castle, 156 <br> Mullen, 101 <br> Corscombe, 109 <br> Corton, 110 <br> Dalwood, 104, 157 <br> Evershot, 101 <br> Faringdon, 153 <br> Fifehead Magdalen, 153 <br> Neville, 157 <br> Folke, 133 <br> Fontmell, 139 <br> Frome St. Quinton, 102 <br> Gillingham, 138 <br> Halstock, 115 <br> Hawkchurch, 121 <br> Haydon, 134 <br> Hinton Martel, 158 <br> St. Mary, 143 <br> Holnest, 138 <br> Holwell, 149 <br> Hooke, 112 <br> Iwerne Courtney, 153 <br> Minster, 145 <br> Kington Magna, 151 <br> Langton Herring, 123 <br> Leigh, 140 <br> Lillington, 136 <br> Litton, 128 <br> Loders, 111 <br> Long Bredy and Little Bredy, 108, 157 <br> Long Burton, 137 <br> Lydlinch, 150 <br> Lyme Regis, 119 <br> Maiden Newton, 112, 152 <br> Manston, 152 <br> Mapperton, 105 <br> Margaret Marsh, 144 <br> Marnhull, 142 <br> Melbury Abbas, 155 <br> Bubb, 143 <br> Osmond, 130 <br> Melcombe Horsey, 102 <br> Milton, 120 <br> Mosterton, 105 <br> Motcombe, 145 <br> Netherbury, 113 <br> Oborne, 130 <br> Okeford, Child, 146 <br> Fitzpaine, 154 <br> Orchard, East, 145 <br> West, 148 | Church Goods, Dorset (1552)-continued. <br> Pilsdon, 129, 157 <br> Poole, 158 <br> Poorton, 129 <br> Portesham, 110 <br> Powerstock, 120 <br> Puncknowle, 117 <br> Radipole, 156 <br> Rampisham, 125 <br> Ramsoul, 157 <br> Ryme, 154 <br> Seron (Cerne), 157 <br> Shaston, St. James, 147 <br> St.Peter's, 147, 158 <br> St. Rumbold, 148, 151 <br> Trinity, 1471 <br> Sherborne, 155 <br> Shipton, 106 <br> Silton, 131 <br> South Perrott, 105 <br> Stafford, East, 156 <br> Stalbridge, 142 <br> Stockland, 104 <br> Stock Gaylard, 132 <br> Stour, East, 137, 144 <br> Parva, 131 <br> Sturminster Newton, 135 <br> Sutton Waldron, 152 <br> Symondsbury, 116 <br> Swyre, 117 <br> Thornford, 134 <br> Todber, 146 <br> Tollerford, 127 <br> Toller Porcorum, 118 <br> Upcerne, 158 <br> Upwey, 157 <br> Walditch, 111 <br> Wambrook, 122 <br> West Orchard, 148 <br> Whitchurch Canonicorum, 107, 156 <br> Wimborne Minster, 158 <br> Winfrith, 156 <br> Winterborne Abbas, 115 Steepleton, 124 <br> Wootton Fitzpaine, 126 <br> North, 132 <br> Wraxall, 127 <br> Yetminster, 140 <br> Cinerary Urn, xxxix. <br> Clarence, L. B., xxviii. <br> Club, Members, \&c., of the, x. <br> Honorary, ix. <br> New, xxi. <br> Proposal to limit number of, xxxiv., xliv. <br> Officers of the, ix., xlv. <br> Proceedings of the, xxv. Annual Meeting, xlii. <br> Summer Meetings, xlviii., lviii., lxiii. |
| :---: | :---: |

Club, Proceedings of-continued: Winter Session, xxv. Reports of -

Hon. Editor, xliv.
Hon. Sec., xliii.
Rules of the, v .
Secretary's Balance Sheet, lxxv.
Treasurer's Balance Sheet, xliii., lxxiv.

Publications of, xxiv.
Coaxden, xxviii.
Cockcraft, Rev. W. O., 1xiv.
Cogan, Family of, xxviii.
Collisson, Rev. S. O., xlix., 1.
Conybeare, Rev. W. D., 186
Commons, Journal of House of (1688-9), xxxiii.

Crallan, Dr., xxix., sxxix., 268
Cunnington, E., xxviii.
D'Aeth, Rev. W. Hughes, 266
Davis, Major, liv.
Dean, Mrs., xxvii., xxxvi.
Deeds, Attestation of old, xxxvi. Exhibit of, xxxv., xxxvi.
Dicker, Rev. C. W. H., xxxiii., 160, 220
Dorchester, Church lawsuit (Holy Trinity and St. Peter), notes on, xxxiii. Dorset County Chronicle, extract from, xxxiii.
Dorset, Church Bells, 205
Church Goods (1552), 101
Old, Village Choirs and Bands, z1., 172
Plants, 75
Songs and rhymes, xl .
Eaton, H. S., xiiii.
Eldridge, J. Robey, lviii.
Elwes, Captain (Hon. Treas.), xxxi., xxxiv., xliii., xliv.

Fleet, Church, lxix.
Flora of, Ixvii.
Tides, \&c., of, lxviii.
Filleul, Rev. S. E. V., Exxix.
Financial Statement, Secretary's, Ixxiv.
Treasurer's, lxxiv.
Flora of Bournemouth, 87
Chesil Beach, \&c., 251
Dorset, 75
Fox-cubs in February, 268
Galpin, Rev. F. W., xxxvii., xl., lix., 172
George, C. E. A., Ixvii.
Gill, W. K., lviii., lx.
Gooseberry Sawfly, Plague of, 269
Gorse Bloom plentiful, 271
Gray, H. St. G., 6
Greenwell, Canon, 6
Hardy, Thomas, xl., 173
Hawkins, W. E., 6
Hawkmoth, specimen of, xxxviiu.
Heath, Sidney, zlvii.
Henslowe, Rev. E., 223

Hudleston, W. H. (Vice-President), xxviii., lxv.

Humstrum, model of a, xxxvii.
Huntley, H. E., xliii.
Insects, First Appearance of (Tables), 273-5.
Jesty, Henry, 2
Jukes Browne, A. J., 184
Landslip at Lyme Regis, 182
Diagrams of, 182, 183, 185
Ravine, view of, 184
Langton Herring, Cross, Ixiii.
Church, lxiv. Geology of District. lxv.

Lepidoptera, scarcity of, 270
Limestone, cellular, exhibit of, xxvii, Freaks of, xxviii.
Limonium occidentale, Ixvii.
Linton, Rev. E. F., 75
Liscombe, Chapel, \&c., 1, 2
House, 4
Monastic Barn, 5
Lock, B. Fossett, xlv.
Luckham, A. M., xl., xlvi.
Lunar halo, xxxiv.
Lys, Dr. F. D., xxvi.
Mansel Pleydell, J. C. (the late), ixix., xxxi., xlii., 75

Memorial Fund, xxiz. Details of, xxx.

Rev. J. C. M., Xxxi.
March, Dr. Colley (Vice-President), xlii., xliii.

Martinstown, Barrow Digging at, 6
Mate, W., lix.
Melcombe Bingham, 5
Members of the Club, $x$.

## Honorary, ix.

New, xxi.
Milton Abbey, xlv., 1, 2. Mediæval Relics, 200
Monastic Burial Relics, 198
Panel Paintings, 201
Rebus of Abbot Middleton, 199
"Ruins, The," 195
Montevideo, Collections, The, Ixix.
Moore, Alderman (Bath), liii., liv.
Oak carving, specimen of, xxviii.
Officers of the Club, ix., xlv.
Orchis (Ophyrs aranifera), xlii.
Paten cover, silver (All Saints, Dorchester, 1573 ), xxxix.
Pentin, Rev. H. (Hon. Sec.), xl., xliv., 1, 195
Pied Wagtail cutting off Fly's Wings, 268
Pitt-Rivers, General, 6
Plants, Dorset, 75
First Flowering of (Tables),
$273-5$
Poole, lviii., 158
Town Cellars, lix.

Pope. A., xxvi., xxix., xxxiii., xxxvi., xliii., lx., lxiii.

President's Address, lexxvi.
Archæology, lxxxiii.
Astronomy, 1xxx.
Botany, lxxix.
Chemistry, lxxxii.
Electricity, lxxxi.
Geography, lxxxiii. Geology, 1xxix. Insects, Migration of -

Coleoptera, xcix.
Diptera, c.
Hemiptera, lxxxiv.
Hymenoptera, ci.
Lepidoptera, xciii.
Neuroptera, xcii.
Orthoptera, lxxxviii.
Meteorology, lxxxi.
Seismology, lxxx.
Zoology, lxxvii.
Prideaux, C. S., Exxix., 6
Puddletown, Musicians' Gallery at, 179
Raalte, Chas. Van, Ixi., 187
Radipole, choir of, xli.
Rainfall in Dorset in 1904-
Average of 42 stations, 88
Cyclone, A Dorset, 94
Observers' notes, 91
Steepleton Manor, temperature, \&c., 100
Tables, 96-99
Reid, Clement, xxv.
Richardson, N. M. (President), xxv., xxviii., xxxi., xxxiv.", xxxv., xxxviii., xlii., lii., lxvii., lxix., 266
Mrs., xxxiv., lxix., lxxvi., 268
Ridley, Rev. J., 266

Roberts, George, 182
Rodd, E: S., 266
Rules of the Club, $\mathbf{v}$.
Sandbanks, lx.
Shickle, Rev. C. W., hi.
Slater, R., xxviii., xxxiii.
Slugs, exhibition of, xxvi.
Testacella haliotidea, xxvi. maugei, xxvi.
Smith, R. Bosworth (Vice-President), xl.

Snails, Plague of, 268
Spicer, Alfred, xxxix.
Solly, Rev. H. S., 182
Squirrel Eating Eggs, 268, 272
Statutes, exhibits of oldMerton, xxvii. Northampton, xxvii.
Stickland, Rev. R. P., 220
Stilwell, H., 88
Strachan, John, 2
Studland Church, Saxon origin of, xlvi.

Sykes, Ernest, xlv.
Taylor, A. J., liii.
Token (French), Ancient, xlii.
Tregonwell, John, 2
Turtle, Fossil (Pleurosternon concinnum), xxviii.

Wallflower Bloom, Sparrows destructive to, 268
Waugh, Rev. W. R., xxxiv.
Weather, Notes on, 271
Webb, Dean, xlv.
Winterborne Whitchurch, 1
Abbas, Village Band of, 174
St. Martin's Band, 175
Steepleton Band, 175
Wimborne Minster, Plague at, 158
Woodward, H. B., 182

$$
\begin{array}{lc}
\text { DA } & \text { Dorset Natural History and } \\
\text { 670 } & \text { Archaeological Society } \\
\text { D69D6 } & \text { Proceedings } \\
\text { v.26 } &
\end{array}
$$

# PLEASE DO NOT REMOVE CARDS OR SLIPS FROM THIS POCKET 

> UNIVERSITY OF TORONTO LIBRARY

$$
\operatorname{lig}_{6}(\operatorname{con}) \cos x
$$




[^0]:    "This meeting wishes to express its sense of the great generosity and kindness of the Lord Eustace Cecil in making it possible, by his handsome donation of £300 Foreign, American and General Trust Deferred Stock, for the Dorset Field Club to carry out the proposed scheme for the furtherance of natural history, physical science, and archæology in Dorset in conjunction with the balance of the Mansel-Pleydell Memorial Fund-a scheme which will be a lasting memorial of their two first Presidents."

[^1]:    * This instrument, by the learned, is sometımes called a humstrum.

[^2]:    A fine specimen of Deilephila (Phryxus) Livornica (the striped Hawk Moth), bred from an egg laid by a moth captured at Ferndown, in Dorset, near Bournemouth, June 22nd, 1904. He said:

[^3]:    "The membership of the Club is now (including the 14 new Members elected to-day) 361 , which, by a curious coincidence, is exactly the same number with which the year started. The large influx of new Members has been counterbalanced by an equally large number of deaths among our old Members and departures from the county. The summer meetings this year, with the exception of that at Sherborne, were not great successes financially. One sometimes hears of Members who complain that they are asked to pay their portion of "incidental expenses" at these meetings; but my statement of receipts and expenditure shows that the small levy on Members is absolutely necessary. Of work done

[^4]:    For the third time I have the honour of welcoming the members of the Dorset Field Club to Montevideo, and I need not say how much pleasure it gives both Mrs. Richardson and myself to see you here to-day. The former visits were mude on August 16th, 1888, and July 15th, 1897 ; so that this being September 14th, 1905, those who have been present on the three occasions will have seen the neighbourhood at three different times of year. I propose briefly to call attention to some of the few " objects of interest" the house contains, without, however, going into scientific details. As this has been chiefly a geological meeting I will begin with fossils, and would mention first the large fossil Cimoliosaurus Richardsoni, which is displayed in the library on tables lying on its back, so as to show its large coracoid or breast bones, except that I have put a very few of the vertebræ the right way up to show the neural spines. It is figured in Volume X. of our "Proceedings" at page 171. (See also "Proceedings" XIX., 154.) In the same room is a crocodile (Steneosaurus), also from the Oxford Clay of Chickerell, showing the head, the vertebral column, and a few teeth and scales. Also an Oxford Clay fish from Chickerell (figured "Proceedings " XVIII., 150) (Pholidophorus), not considered by Mr. A. Smith Woodward, F.R.S., sufficiently perfect for description, though there are two other fragments in the British Museum of probably the same species, mine, however, being the only one that contains any teeth. A spine of Asteracanthus, which

[^5]:    * Eweleaze Barn.

[^6]:    * The surveying instruments were kindly lent by Capt. Acland and Mr. G. J. Hunt. We also received help in many other ways from Dr. Colley March, F.S.A., the Rev. S. J. F. Kent, and Mr. W. de C. Prideaux.
    $\dagger$ The north point could only be included on the plan after the commencement of the cutting, as our prismatic compass was out of order at the beginning of the operations.
    $\ddagger$ The cairn of flints covered by this mound will be mentioned in speaking of the interments.

[^7]:    * Journal Anthrop. Inst., Vol. XXXII., pp. 373-396; and Proc., Soc. Antiq. Scot., Vol. XXXVIII., pp. 324-410.

[^8]:    * Exhibited in the Mortimer Museum at Driffield. See Catalogue, 1900, p. 59, fig. 37.

[^9]:    * One flint core was also found in the main cutting of barrow.

[^10]:    * See "Arbor Low Excavations'" by H. St. G. Gray, Archæologia, Vol. LVIII., pt. 2, p. 469.
    $\dagger$ Excavations in Cranborne Chase, Vol. IV., p. 104. This reference may prove of value to archæologists engaged in the re-excavation of ditches.

[^11]:    * This has not yet been examined by an expert microscopist. $\dagger$ Figured in Proc. Soc. Antiq. Scot., Vol. XXXVIII., p. 382, No. 54.

[^12]:    * Ancient Wiltshire, Vol. I., p. 237, Pl. 33, Fig. 2.
    $\dagger$ Purheck Papers, I., 159, Fig. 2. Warne's Celtic Tumuli, III., 71. $\ddagger$ Figured in The Connoisseur, Vol. IX., p. 186.
    § Proc. Soc. Antiq. Scotland, XVIII., 307, and Anderson's Scotland in Pagan Times (Bronze and Stone Ages), Fig. 97.
    || Warne's Celtic Tumuli, p. 36.

[^13]:    * Excavations in Cranborne Chase, Vol. IV., Plate 294, Fig. 2.

[^14]:    * The line of the cutting was not true N. and S., but $31^{\circ}$ east of Magnetic North.

[^15]:    * Thurnam supports Hoare's assertion that Bronze Age cinerary urns are " much more frequently " found inverted than otherwise.

    We do not agree with this. The position of urns discovered by Hoare in Wiltshire is only named in 30 instances, and of these 14 were erect and 16 inverted.
    It is quite probable that he made a point of recording those that were inverted, the position being naturally more striking.
    Canon Greenwell says that the urns were "usually deposited standing upright, but very frequently reversed over the bones" (Brit. Barrows, p. 14).
    Of the 52 cremated interments found by General Pitt-Rivers connected with Barrow 24, Handley Hill, 47 contained burnt bones and pottery (including several complete urns and portions of urns), 4 burnt bones without pottery, and 1 wood ashes but no bones or pottery. Two only of the urns were found in an inverted position !
    $\dagger$ At one corner the stone bears a mark where portion of the rim of the urn rested.
    $\ddagger$ Cremated remains of the Bronze Age are not always found in or under urns, although in Dorset they have been found enclosed in urns in proportion of three to one. In Wilts, according to Hoare, on the other hand, the proportion is only one to three. At Cleveland Mr. Atkinson found that, out of 50 burials by cremation, the bones were deposited in an urn in 32 cases.

    According to Canon Greenwell, burnt bones are found enclosed in urns much less frequently on the Yorkshire Wolds than in other parts of England.

[^16]:    * Archæologia, Vol. XLIII., p. 326.

[^17]:    * Restored by Mr. C. S. Prideaux. $\dagger$ Greatest height, $15{ }^{3} \mathrm{in}$. ; least height, 137in.

[^18]:    * Excavations in Cranborne Chase, Vol. IV., Plate 301, Fig. 6.
    $\dagger$ Op. cit., Vol. IV., Plate 298, Fig. 7.
    $\ddagger$ Vol. XLIII., Plate xxx., Fig. 1.
    § Figured in "Catalogue of Antiquities in Devizes Museum" (Wilts Arch. Soc.), Part I., the Stourhead Collection, 1896, p. 64.

    $$
    \| O p . c i t ., \text { p. } 47
    $$

    ๆ Op. cit., p. 66; also Archæologia, Vol. XLIII., p. 346.

[^19]:    * Prof. W. Boyd Dawkins, F.R.S., has seen these bones.

[^20]:    * Vide " Proc." Dors. N.H. and A.F. Club, Vol. XXIV., p. 152.

[^21]:    Sir John Ludlowe vicar there John Longe
    William Wyse William Huddy

    Nicholas Longe<br>William Elyote<br>John Wareham

[^22]:    * The fields that slipped and sank had been sown with wheat in the autumn of 1839 , and the movements that took place, though so extensive, were so gentle that the surface soil was little disturbed, and in August, 1840, a crop of wheat was reaped in most extraordinary situations, even on the tops of pinnacles, which were accessible only with the aid of ropes and ladders.

[^23]:    * Surrey Bells and London Bell Founders, p. 90. + Old English Homilies, E.E.T.S., I., 129.

[^24]:    * Church Bells of Devon, p. 46.

[^25]:    * Swayne's C. W.'s accounts S. Edm. and S. Tho. Sarum, pp. 106, 334. $\dagger$ Lukis, p. 101.
    $\ddagger$ Swayne's C. W.'s accounts S. Edm. and S. Tho. Sarum, pp. 106. 334.
    § Ellacombe's C.B. of Devon, p. 56.

[^26]:    * Ellacombe's C.B. of Devon, p. 56.
    † Ellacombe's C.B. of Devon, p. 18. $\ddagger$ Journal of the Royal Archæological Institute, I., 152.
    § An Account of Church Bells, p. 16.

[^27]:    * H.D., II., 147.

[^28]:    * Church Bells of Bucks, p. 137.

[^29]:    * The eight at Wareham are by William Mears, 1785.

