

of the apse discovered under the concrete three weeks before.

The whole of the present church building was of the Perpendicular period, excepting certain remains of possibly pre-Norman work and of Transitional and Decorated work and additions made since 1759, when the present tower was built. The exact date of the Perpendicular work might be from 1430 to 1440. Judging by the pre-Norman grave crosses found in the rubble of the old north wall when it was pulled down in 1903 to allow of the building of the King's Own Memorial Chapel it was certain that there was a very ancient cemetery of considerable importance. The first actual date known was that of the foundation of the priory by Earl Roger of Poitiers in 1094. He built the Norman keep of the Castle and gave the church to St. Martin's Abbey at Sees, and placed in the priory three priests and two clerks, with their servants. In 1898 the old outer west door (c) of the Decorated period (probably 1360) was discovered by the removal of the plaster from the west wall under the gallery, and at the same time there were discovered the early door to the north of the Decorated door and indications of early masonry. The old tower was to the north-west of the present one, so that it seemed certain that the length of wall containing that door formed the eastern wall of the ancient tower, and might be, as had been supposed, pre-Norman. This tower might possibly have been an early tower of Sanctuary, with a church attached to it about the size of that at Overton. The latter church had an apse 15 feet wide, the foundations of which he found in 1901. It may be that the apse foundations he discovered here the other day are Transitional and represent a church which had aisles built about 1180 and succeeding the smaller church, being an enlargement on account of the growth of the Priory. The present south door (B) may have belonged to such a church and have been rebuilt in its present position in Decorated times.

Remains of a second door of similar size and date were found in the rubble of the north wall in 1903, which unfortunately were walled in again by mistake.

The Perpendicular respond was built against the early wall at the west end. The above-mentioned Decorated west door (D) would necessarily open into the south Transitional aisle, and it would seem that the Transitional arcade, or part of it, was taken down when this door was built, as a Transitional respond capital (now preserved) was found in the rubble of the

Decorated west wall when a new window was inserted in the year 1905. Why this arcade was taken down, and what the Decorated extension was intended for, unless for a large porch like that at Christchurch, was not evident, and it was possible that the respond capital and base belonged to a chancel aisle only. The next date of which there was any record was 1281, when Archbishop Wickwayne, of York, held a visitation at Lancaster priory, and deferred consecrating the extension of 30 feet eastwards for two years. The foundations running east and west in the chancel, and found the other day, might represent this extension*. He hoped that if the nave floor was taken up they might be able to verify some of these propositions or discover further history of the building.

With regard to the Perpendicular work, the chancel and nave were nearly equal in length, and it would appear that the nave was rather later than the chancel. On the dissolution of the alien priories in 1414 Lancaster was annexed to the abbey of Syon, in Middlesex, in 1424. The list of priors was fairly complete. It would be very interesting if the foundations of the priory could be excavated. There was a gatehouse of importance to the north-west shown in Speed's map of 1610, and near this position he (Mr. Austin), a few years ago, picked up one of the Decorated groining ribs. All the windows, except the east, were of one design, and until about six years ago there was no west window at all. It was possible that the present south window of the tower was based on an ancient Decorated west window, and might have some old parts about it, as the design was different in character from anything in the tower and it might be of the date of the west door. There was, of course, no trace of the Benedictine cloister on the north wall, which, before rebuilding, was of very plain rubble and not of coursed masonry. The tower was rebuilt in 1759, quite detached, by a Liverpool architect, as the old tower was falling. New vestries were built in 1871 and 1894, the south porch in 1902, and the chapel in 1903. As regards ancient woodwork, part of the aisle roofs was of the Perpendicular period, and the church possessed fourteen magnificent oak carved stalls and canopies of the Decorated period, somewhat flamboyant in character, dating about

* This theory was upset by our later discovery that these foundations are continuous to the east end, and appear to run under it; and this wall may possibly have had to do with the castle in still earlier times.

1350. For the period they are unequalled in excellence. They were said to have been brought from Furness or Cockersand, but the latter abbey seemed to have been too small for such large stalls. The priory church of Lancaster escaped demolition, but Furness Abbey was dismantled in 1537, so that that abbey seemed to be more likely. There were also good examples of a Jacobean font cover and pulpit and three fine Flemish chandeliers.

Mr. Austin afterwards conducted the party over the church, and showed them the position of the ancient walls below the newly asphalted chancel floor.

Miss Alice Johnson threw open the fine collection of Roman pottery at her house in Castle Park, and it attracted a large number of visitors.

For all these kind and valuable services the above-named lady and gentlemen were thanked on behalf of the Society by Canon Bower.

At half-past twelve carriages were taken for Heysham, where Mr. Collingwood described the Anglian shaft, the hogback, St. Patrick's Chapel, and the rock graves.

At the old Church of St. Peter, Mr. J. R. Nuttall, F.R.Hist.Soc., gave a brief review of its history. He mentioned that the church contained examples of Saxon, Norman, and later styles of architecture, that the bells were dated 1723 and 1724, and that the registers began in 1658. It was probable that a small Saxon church existed on the site. Traces of Saxon work are to be found in a walled-up doorway at the west end and in a doorway discovered during the building of the north aisle in 1864, and now re-erected in the church-yard; the probability was that a Norman church was erected in which the Saxon work was incorporated, and would occupy the site of the present nave with an apsidal or square-ended chancel. The present chancel is of fourteenth century date, and the south aisle shows traces of Perpendicular work and is sixteenth century. The south aisle did not extend to its present length; there seem to be two distinct breaks in its eastward extension. The original stonework of the south chancel window is still in its original position. The extension would take place in 1737 when we see from a memorial stone that Thomas Clarkson, rector of Heysham and vicar of Chipping, rebuilt the chancel. The porch was evidently built a little later than the south aisle, and this would be the position of the church until 1864, when the north aisle was built and the church assumed its present form. Attention was called to several objects of

interest in the church—an old latten chalice found during the alterations to the church and built into the south aisle, old memorial stones with quaint lettering and wording, and a remarkably fine floriated cross of thirteenth century work erected at the west end of the north aisle. A number of memorial stones with floriated crosses are also to be found in the churchyard, mostly covered with mould; these, in addition to crosses, bear several other devices, as shears, chalice; and most unusual of all is one with a sword and harp (?) in high relief, which is illustrated in Whittaker's *Richmondshire* and also in Boutell's *Christian Monuments*.

A visit was afterwards paid to the Old Hall, where Miss Royds gave the visitors a cordial welcome. The house is Elizabethan, the date 1598 and the initials of the builder, R.E., are carved on the north gable; it contains a very fine collection of old furniture, china, and pewter collected by Miss Royds.

The drive to Lancaster completed an interesting excursion, rendered highly successful by remarkably fine weather and excellent arrangements made by the Local Committee, namely: Canon Grenside, Mr. T. Cann Hughes, Miss Alice Johnson, Mr. A. Moorhouse, Mr. J. R. Nuttall, and Mr. Edward Wilson.

Among those present during the whole or part of the excursion were: Dr. and Mrs. Abercrombie, the Mayor of Barrow-in-Furness and Miss Butler, Mrs. Bateson, Mrs. Benson (Hynning) and party, Lord Henry Bentinck, M.P., and Lady Henry Bentinck, Mr. Booth (Storrs Hall), the Rev. Canon Bower, Mr. and Mrs. H. Brierley, Mr. C. W. Bulwinkle, Mr. T. E. Casson, Mr. W. Castlehow, Mr. W. G. Collingwood, Mr. J. Coward, Miss M. E. Creighton, Mr. and Mrs. F. W. Crewdson and the Misses Crewdson, Mr. and the Hon. Mrs. Cropper and the Misses Cropper, Mr. and Mrs. J. F. Curwen and Messrs. D. and S. Curwen, Miss Donald, Mrs. Dyson, Mr. and the Misses Fothergill (Kendal), Miss Fothergill (Brownber), Miss Gibson (Barbon), Mr. and Mrs. W. Gibson (Penrith), Mr. Harvey Goodwin, the Rev. Canon Grenside, Mr. W. G. Groves and party, Dr. and Mrs. Haswell, the Rev. J. R. and Mrs. Highmoor, Miss K. S. Hodgson and Miss Gem, Mr. T. Cann Hughes M.A., F.S.A., Professor and Mrs. T. McKenny Hughes, Mrs. Irwin, Col. Edwin Jackson, Mrs. and Miss Jackson, Miss Alice Johnson, Mr. W. J. Lawson, the Rev. H. Maclean, Dr. Mathews, Mr. A. Moorhouse, Mrs. Mounsey-Heygate, the Rev. R. V. Nanson, Mr. J. R. Nuttall F.R.Hist.S., Col. J. W. R. Parker, Dr. and Mrs. C. A. Parker, Mr. A. Pearson, Mr. L. Pearson, Mr. H. Penfold, the Rev. G. E. P. Reade, the Rev. C. Royds,

Mr. C. W. Ruston-Harrison, Mr. Joseph Sharpe, Mr. A. W. Simpson, Mr. J. P. Smith, Miss Agnes Spring-Rice, Mr., Mrs. and Miss Todd, the Rev. A. R. Tomlinson, Mr. W. C. Welch and Mr. J. J. Welch, Col. and Mrs. Weston, Mr. and Mrs. Edward Wilson, Miss Wrigley (Pooley Bridge), Mr. J. S. Yeates.

COUNCIL MEETING, NOVEMBER.

On November 23rd, 1911, a Council Meeting was held at Penrith, at which Dr. Barnes (in the chair), the Rev. J. Whiteside, Dr. Haswell, Col. Edwin Jackson, Mr. Henry Brierley, Mr. J. H. Martindale, Mr. C. W. Ruston-Harrison, Mr. J. F. Curwen, Mr. W. G. Collingwood, and Mr. E. Wilson were present. The recent death of Canon Bower was mentioned by the Chairman in terms of the deepest regret, and a resolution expressing the Council's sympathy was directed to be sent to Mrs. Bower and our late vice-president's family.

Mr. Martindale reported that steps had been taken towards the preservation of the grave-slabs at Egremont, which had been in a neglected condition.

A letter was read from Mr. Francis Grainger, as Chairman of the General Purposes Committee of the Cumberland County Council, inviting the Society to draw up a list of ancient monuments worthy of protection under the Acts of 1882 and 1900; and a sub-committee for this purpose, and for making a corresponding list of Westmorland antiquities, was appointed, consisting of Professor Haverfield, Mr. John F. Curwen, and Mr. W. G. Collingwood.

As a result of further correspondence with Messrs. Phillimore and Co., in the matter of Parish Registers, it was decided to give the same support to volume II. of Cumberland in Messrs. Phillimore's series as had been given to volume I.; after which it would be left to individual members to buy the volumes as they appear, and to give whatever assistance they may be able to render.

The attention of the Society's officers having been called to the proposed blocking of a lane at Milburn by the building of an institute, thus destroying, as it was thought, some part of the highly interesting plan of this ancient village, Dr. Haswell and Colonel Jackson had kindly undertaken to inspect the site and to investigate the matter on behalf of the Council. They reported that the lane led only to fields and to the back of a farm, and had no opening at the further end; for some time it

had been blocked with thorns ; it was a private road, and Quarter Sessions had stated that they had no jurisdiction over it. In consequence of this report it was felt that the Council could not take action in the matter.

In reply to a communication from the Earthworks Committee of the Congress of Archæological Societies, it was resolved to take 200 copies of the annual Earthworks report, for distribution to such members as desired to receive them.

A letter from the Yorkshire Archæological Society was read, inviting our Society to join in a request to the Record Commissioners to remove the Richmond wills from Somerset House to a local centre ; it was agreed that this course would facilitate research.

The following new members were elected : Mr. H. H. Llewelyn, Arnside ; Mr. George Musgrave, Wasdale ; Mr. John Richardson, Appleby ; Mr. Francis Reagill, Bradford.

The preservation of the remains of Hartley Castle and proposed exploration of the Roman fort at Papcastle were also discussed.

The thanks of the Council were offered to Mr. Henry Brierley for his generosity in bearing the cost of printing the Milburn Parish Register, and the History of Barton Grammar School, written by himself. The latter work, issued as one of our Tract Series, he proposed to distribute to members.

SPRING MEETING.

A meeting of the Society was held on April 11th, 1912, at Tullie House, Carlisle, preceded by a Council meeting in the morning, at which, among other business, the following matters were brought forward :—

Expression of the Society's deep regret at the loss of the Hon. William Lowther, vice-president, and Mr. F. H. M. Parker, M.A., member of Council ; and at the illness of Mr. J. P. Gibson, F.S.A.

Arising out of the minutes, Mr. W. G. Collingwood reported that the late Mr. W. N. Thompson's collection of material towards the intended publication of Bishop Gastrell's *Notitia* (the part relating to the present Diocese of Carlisle) had been sent to him by Mr. N. N. Thompson, and now awaited an editor.

Correspondence with the Canterbury and York Society was read, to the effect that our Society is invited to share the expense of transcribing the part of Bishop Halton's Register not already transcribed by the late Mr. W. N. Thompson. The impossibility of meeting this expense out of the ordinary income of the Society

was pointed out by the Hon. Secretary, and it was decided to postpone a decision until the next meeting, recommending in the meanwhile the formation of a fund for Record publications.

The Sub-Committee for drawing up a list of antiquities worthy of protection reported that such lists had been presented to the County Councils of Cumberland and Westmorland.

With a view to the tentative exploration of the Roman fort at Papcastle a sub-committee was appointed, consisting of Col. Edwin Jackson and Mr. J. H. Martindale, F.R.I.B.A., with power to add to their number, and leave to spend a sum not exceeding £25 from the Research Fund.

A grant from the Research Fund of £2 was made for an iron railing to be placed across the recess of the turret at Amboglanna (Birdoswald), recently excavated by Mr. J. P. Gibson, F.S.A., and Mr. F. Gerald Simpson.

Permission was given to publish Mr. J. F. Curwen's new work, "Fortified Dwellings in Cumberland and Westmorland," as volume XIII. of the Society's Extra Series; and Mr. W. G. Collingwood's "Elizabethan Keswick: extracts from the Accounts of the German Miners, 1564-1577, from the original MSS. at Augsburg," as No. VIII., Tract Series. It was understood that the Society would not be put to any expense in connection with these two publications.

The attendance at the Council and General Meetings included Chancellor Prescott and Dr. Barnes, vice-presidents; the Rev. F. L. H. Millard, Dr. Abercrombie, Major Spencer Ferguson, Col. Edwin Jackson, and Mr. J. H. Martindale, members of Council; Mr. W. G. Collingwood, Editor; Mr. John F. Curwen, Hon. Secretary for Antiquarian Correspondence; and Mr. Edward Wilson, Hon. Secretary; also Mrs. and Miss Hodgson, Newby Grange; Miss Donald, Canon Campbell, Mr. Robert Crowder, Mr. J. Sewell, Mr. W. T. McIntire, and Mr. L. E. Hope, Carlisle; the Rev. R. V. Nanson, Penrith; Mr. Fox, St. Bees.

The General Meeting was held at two o'clock in the Art Gallery of Tullie House. The chair was taken by Chancellor Prescott, and when the Chancellor was obliged to leave, his place was filled by Dr. Barnes. The following new members were elected: Répertoire d'Art et d'Archéologie, 19 Rue Spontini, Paris; Mr. Hubert W. Sewell, St. Ann's, Carlisle; Miss Mary Sophia Sutton, Bridekirk Vicarage, Cockermouth; Mr. Henry Ince Anderton, Palazzo Capponi, 28 Via Gino Capponi, Florence, Italy; Mr. Cecil Slingsby, Whitbarrow Lodge, Grange-over-Sands; Mrs. Alfred Fletcher, Allerton, Liverpool; Mr. Newton H. Harding,

110 N. Pine Avenue, Chicago, Ill., U.S.A.; the Right Hon. Sir Gainsford Bruce, "Yewhurst," Bromley, Kent; Mr. James Randall, Ulverston; Mr. W. H. Wallace, West Bank, Kendal; Mr. John C. Trubshaw, Lake View Villas, Windermere; Miss Muriel Trubshaw, Lake View Villas, Windermere; Mr. Wilfrid Irwin, Sunnyside, Papcastle.

Mr. John F. Curwen, F.S.A., then read articles by himself and by Canon Fowler, D.C.L., F.S.A., on St. Anthony's Chapel, Cartmel Fell, dealing respectively with the fabric and its history and with the ancient glass (Articles XXIV. and XXV.). In proposing a vote of thanks, Canon Campbell said he would like to mention one or two things about the restoration of this chapel. One was that they were very much indebted to the late Vicar, Mr. Summers. He was a long time at Cartmel Fell, and he raised a little money a long time ago, and it kept accumulating in the bank. After he became old he declined to take any action. When he (Canon Campbell) went to Cartmel he pointed out the defects of the church. One of the questions put forward by the Archdeacon in regard to the condition of churches was, "Are the spouts in order?" Mr. Summers replied to that question by saying that "they never had any spouts." He tried to persuade them to begin, but no move could be made. But when Mr. Summers was retiring he felt anxious about the future, and he persuaded Mr. Summers to transfer the money he had collected to his own name in the bank, and consequently he (Canon Campbell) found himself in possession of £400, the accumulation by care and interest in the object. That did about half the work, and he did not know that the Committee would have had the courage to do so much as they did unless they had this store accumulated by Mr. Summers. He would like to mention the name of Canon Cooper in connection with the matter. Canon Cooper was on the Committee, and he was the only person on the Committee who had the least faith in the restoration and reconstruction of the window which had been described. He was thankful to say that Canon Cooper's hopes had been realised. He would like to say that they were immensely fortunate in having in Mr. Curwen an architect who had preserved to them this old church.

In seconding, Mr. Collingwood said that more than twenty years ago he had been for some time a parishioner of Cartmel Fell, and even so far back the need of restoration had been obvious to those who attended the church. Both on antiquarian and artistic grounds, he was usually averse to restoration, but in this

case he deprecated the criticisms which had been made by some who did not appear to know how necessary the work had been, and how carefully and skilfully it had been carried out.

In response to a call from the Chairman, Mr. Collingwood said he had to mention a matter which had been discussed by the Council in the morning. It was suggested that they should have a Records or Publication Fund. The Society existed, they knew, on a general income obtained from subscriptions, but members' half-guineas were never intended for more than the working cost of meetings and *Transactions*. A special Research Fund had been found necessary for digging; and for the Parish Registers a separate Section had been created. But there was no revenue applicable to extra volumes, which had usually been issued at the author's expense; or, when printed by the Society, they had been a heavy drain on general income. It was not to be expected that research of any kind could be carried on without initial outlay, nor that antiquarian enterprise could be self-supporting. The sale of copies could not recoup expenses of transcription and printing, though the work of editing was unpaid; and yet the publication of historical documents was a duty of the highest importance. They had in hand the Diocesan Registers, in which the Canterbury and York Society were sharing expenses, greatly relieving our Society, but making it incumbent upon us to proceed with this good work. Other enterprises, such as Bishop Gastrell's *Notitia* (the part relating to the present Diocese of Carlisle), begun by the late Mr. W. N. Thompson, ought to be continued. He was confident that some members who had the means, and recognised the importance of historical study, would assist the scholars who contributed their time and knowledge; and by the formation of this fund they would remove a disability under which the Society had long laboured. It was one of their duties to get into type those valuable and ancient documents, and he moved that this meeting sanction the formation of a Publications or Records Fund of which the proceeds were to be applied to the printing and issuing of ancient records and material of historical and antiquarian interest.

Chancellor Prescott seconded the motion. He said he hoped the Society would take up such a fund as had been described. They were a little behind in this matter. They had in this district some of the most interesting documents in England. The registers which had been referred to ran up from the thirteenth century to 1386, and covered a period of history when Carlisle saw more great people than it ever did before and certainly

more than it had done since, and the historical documents contained in those registers were really of priceless value. He hoped the suggestions that had been made by Professor Collingwood would be taken up and people would give initial subscriptions for stating this fund and that annual subscriptions might come forward in order that the fund might be permanently established. He put the motion to the meeting in the following terms: "That a fund for the publication of records of antiquarian and historical interest be established, and that the Council be requested to take the matter up."

The Rev. F. L. H. Millard asked whether any idea of the expenditure contemplated could be given.

Mr. Collingwood said they would require £100 or more for the publication of the Diocesan Registers, for instance. He could not say that there was any limit to their demands.

The motion was put to the meeting and carried unanimously.

Reports on the Ancient Settlement at Stone Close, near Stainton-in-Furness, by Mr. John Dobson, and on Excavations at the "Druids' Circle" at Birkrigg, by the Rev. Charles Gelderd, D.Sc., and Mr. John Dobson (Articles XXII. and XXIII.), were read by the Editor.

Dr. Henry Barnes, M.D., LL.D., F.R.S.E., then exhibited examples of old bankers' balances for weighing gold coins, with the following remarks:—There is a large collection in the Neo-Archaic Room of the Tullie House Museum of obsolete apparatus and appliances, and with a view of increasing the interest in this collection and thereby obtaining further additions I propose to give a short account of some old bankers' scales or balances for weighing gold coins, which form part of the collection. The history of English gold coinage is interesting. In the reign of Henry III. an attempt was made to introduce a gold currency in the form of a penny, which was to be current for 20 pence, but which was soon raised to 24 pence. This innovation, which occurred in 1257, was not a success, partly because the coin was rated too high in comparison to the silver, and partly because the country was not prepared to receive a coin of so high a value in general currency. In consequence of the protest of the citizens of London the new coin was promptly withdrawn, and it was not for nearly a hundred years that a further attempt was made in this direction. In 1343 Edward III. ordered a gold currency. It consisted of a florin, its half the leopard, and its quarter the helm. The florin weighed 108 grains and was current for 6s. In consequence of their being rated too high in proportion to

the silver they were quickly refused and were at once withdrawn. In the following year another new coinage was struck, consisting of the noble, its half the maille noble, and its quarter the ferling noble. They were of the same standard as the florin and its parts, and were current at the rate of 6s. 8d. to the noble and weighed 138 6-13 grains. I have seen some specimens of these nobles which were found in Cumberland a few years ago. The coinage of the reigns of Richard II., Henry IV., and Henry V. show the same currency, and in the reign of Henry VI., in addition to the noble, half noble, and quarter noble, we had the angel and half angel. The weight of the angel was 80 grains. During the reign of Edward IV. the issue of gold coins consisted of nobles, rose nobles or ryals, half rose noble, quarter rose noble, angel and half angel. The weight of the noble was 108 grains, of the rose noble 120 grains, and of the angel 80 grains. Edward V. and Richard III. issued only angels and half angels in gold. In addition to the noble, angel, and half angel, Henry VII. issued a new coin called the sovereign, which weighed 240 grains and was current for 20s. Under the name of sovereign, unite, or broad gold coins of the value of 20s. were issued during succeeding reigns down to the reign of Charles II., when guineas were first issued. They were issued as five-guinea pieces, two guineas, guinea, and half guinea. The guinea was current for 20s., and its weight till 1670 was 140 20-41 grains, afterwards 131 29-41 grains. The gold from which the coins were made was imported by the African Company and came from Guinea, and this gave the name to the 20s. piece. During the succeeding reigns down to the last three years of the reign of George III. the guinea coinage was the only gold issued. But while the weight remained the same as that fixed by Charles II. the original value of the coin fluctuated. This was owing to the silver money getting into a very bad state, partly on account of the prevalence of clipping, partly through forgery, and partly because some of the old hammered money had not been withdrawn from circulation. The effect of this was to send up the value of the guinea, and in 1694 it rose to 30s. It was gradually reduced by Act of Parliament to 28s., then to 26s., 22s., and finally in 1698 to 21s. 6d., at which value it remained till 1717, when it was further reduced to 21s. There were four issues of gold coins in the reign of George III. In the first three the coins were the guinea, the half guinea, the quarter guinea, and the third guinea, the dates of the issues being 1761-1786, 1787-1800, and 1800-1813. In the fourth (1817-1820) issue only sovereigns and half sovereigns were issued,

and no further issue of guineas took place. The weights of the gold coins down to 1813 were the same as those established in the last issue of Charles II. (1670). When the sovereign was struck in 1817 its weight was fixed at 123 272-1,000 grs., and no change in the weight has taken place down to the present time. When such a minute fractional part of a grain has to be weighed it is obvious that scales of extreme accuracy are required. The specimens shown belong to the class of scale beam or balance in which the scale pans are below the beam, and these are the most accurate balances. When constructed with extreme accuracy it is said they will turn with one-millionth part of the load weighed. One of the scales is for guineas and half-guineas only. Its scale is adjusted to turn at one farthing's worth of gold. The other is made for weighing both guineas and sovereigns, and was probably made when sovereigns were first put into circulation. It has been in the possession of my family for about 90 years, and I have recently presented it to the Museum. I also show a brass box for banker's scales, which belonged to the collection of the late Mr. Robert Ferguson. The scales are unfortunately missing. A half-guinea weight is also shown, having recently been acquired for the Museum.

Mr. J. F. Curwen read accounts by Professor T. McKenny Hughes, F.R.S., F.S.A., of his exploration of a tumulus at Heaves, Kendal, and the discovery of interments near the same place (Arts. XXVII. and XXVIII.), to which remarks on the subject of the word "heaf," discussed in the paper, were added by the Rev. R. V. Nanson.

Part of an article by Mr. T. H. B. Graham, on the Townfields of Cumberland, was read by Mr. Edward Wilson; another article by Mr. Graham, entitled "Annals of Liddel," was submitted. These two papers are held over through want of space in the present volume, and will appear in our next.

Mr. W. G. Collingwood then described recently found cross-fragments at Dacre and Kirkby Stephen (Art. XVIII.).

Mr. L. E. Hope exhibited a whinstone axe-hammer which was found at Thomas Close, Hutton-in-the-Forest, in March, 1912, by Mr. Bell among the débris turned up at the root of a fallen fir tree. The stone weighs 7 lbs. 4 ozs.; it is 10 inches long and $4\frac{3}{8}$ inches wide at the broadest part, tapering to a point at one end and to 2 inches at the other; $2\frac{7}{8}$ inches in thickness at the thickest part (near the hole), tapering to 1 inch at the point. The hole is $1\frac{1}{4}$ inch in diameter at the surface, but tapers to $1\frac{1}{8}$ inch at the centre. The material is a rather coarse-grained blue whinstone, the local volcanic, intrusive rock.