In considering the bells of a Scottish county it is important to remember the main facts with regard to the character and use of bells in Scotland as a whole, as compared with England. During the later middle ages, as church bells increased in size and number, we find three methods growing up in regard to their arrangement. Sometimes bells were multiplied in a church tower without regard to the musical relation of their notes, such a collection of bells being rung together at haphazard, or the single bells used separately. This was, and is, the practice in the neighbouring parts of the Continent and in the larger churches of Scotland. In England, on the other hand, the tendency was to arrange the bells so that their notes formed part of a scale, and to ring them successively as well as all together, or each separately. A third method in Scotland and on the Continent, though not in England, was to cast a large number of small bells upon which tunes could be played. After the Reformation period there was a great development on the Continent of these musical bells, the sets of which are known as carillons: the bells themselves were fixed "dead," as it is called, and struck by hammers operated by a system of wires attached to a row of keys or levers. These carillons, unknown in England, existed on the Continent, and in a few of our larger Scottish churches, as additions to the other collections of much bigger bells, which were rung by ropes. In England, after the Reformation, there was a parallel though different development. Here there was no carillon of many musical bells, but the collection of large bells, whose notes had all along formed part of the scale, was itself developed, and after the Restoration of Charles II. all the larger churches began to
have six or eight bells tuned to the major scale, this number being afterwards increased to ten or twelve. This development was accompanied by, and in its later stages was largely due to, the peculiarly English growth of change-ringing, which also caused the bells to be made extremely heavy, and to be hung in such a way that they could be easily manipulated. Whereas the large bells on the Continent and in Scotland are merely hung between beams and gently swung to and fro, the heavy English bells are hung in a special kind of frame, with an apparatus of wheels, stays, and sliders, by which they can be swung right round and made to rest mouth upwards when necessary. Yet the less massively cast Continental bells have frequently attained a greater size.

To put the whole matter in a few words: as far as bells are concerned, Scotland has till recently been Continental in practice, and little, if at all, influenced by England.

It is also worth while to notice that whereas in many parts of England village churches had towers, each containing several bells, in Scotland, even in the richer districts, the country churches seldom had towers and seldom more than a single bell each.

In view of these facts it is not surprising to find that from the fifteenth century to the middle of the eighteenth, bells were frequently imported into Scotland from the Netherlands, and that bells of Scottish make were cast on the Dutch or Flemish model, in some cases their very ornaments being actual reproductions of those on Dutch bells. In England foreign bells are remarkably rare.

Bells in Scotland have been but little studied. The writer believes that the account of those of Kincardineshire, which he published in 1897, is at present the only book dealing systematically with any part of the subject. Since that time he has collected material for similar accounts of the church bells of Aberdeenshire, and of those of Kirkcudbrightshire and Wigtownshire, besides examining numerous bells in Roxburghshire, Midlothian, Fife, Forfarshire, and elsewhere.
The result of these investigations has been to confirm the views set forth in the introduction to *Church Bells of Kincardineshire*, and briefly outlined above.

Linlithgowshire or West Lothian is a small county consisting of thirteen parishes, one of which, Whitburn, only dates from 1718, when it was taken from that of Livingston. While it is possible that there may once have been separate parishes of Binning and Auldcathie, it is true to say that now there only remain twelve old churches, or churches representing old churches, in which ancient bells remain or in which they could have survived.

The older bells may be classified thus:

(I.) 3 mediaeval
- 2 Scottish.
- 1 Doubtful.

(II.) 5 seventeenth century
- 2 Scottish.
- 3 Dutch.

(III.) 4 eighteenth century
- 1 Dutch.
- 1 Danish.
- 1 English.
- 1 Doubtful.

Six parish churches now have modern bells, viz. Bathgate, Dalmeny, Ecclesmachan, Abercorn, Bo’ness, and Whitburn, although at Bathgate one of the bells is recast from an older one whose date it records, and at Abercorn and Bo’ness the older bells are still left.

Of the three mediaeval bells, the earliest is probably the old bell now carefully preserved in the modern parish church of Bo’ness (fig. 1). This is a very fine smooth casting with a good tone; the canons are large, plain and rounded, the shoulder is large and rounded off on to the crown, on which there are no rims or mouldings. Above and below the inscription are rims and shallow mouldings; there are three rims, of which the middle one is the largest, immediately above
the soundbow, and two small ones above the lip. The inscription is in Lombardic letters, and is as follows:

\[ + \text{EN} : \text{KATERINA} : \text{VOCOR} : \text{VT} : \text{PER} : \text{ME} : \text{VIRGINIS} : \text{ALME} \]

The initial cross, the stops, and the letters are each upon a separate rectangular die, of which the groundwork has been enriched with some kind of ornament. All are regularly placed, set close to each other.
and close to the rims above and below. The lettering has the appearance of having been much used and worn, and the ornamentation on the dies or *pateræ* is very indistinct. The shape of the bell seems to indicate the middle of the fifteenth century as the probable date, but the lettering may well be from much earlier stamps (fig. 2).

I have been unable to find another instance of this lettering either here or in England. Similar lettering is common in England, but I cannot as yet discover another case where it is identical.

The inscription is what is known as a Leonine hexameter, but it is obviously incomplete, and was no doubt continued upon another bell. St Katharine is the patroness of the old parish church of Kinneil, the double belfry of which is still standing, and the bell is doubtless one of a pair cast for that church. Bo'ness Church was originally a chapel in Kinneil Parish, and was built in 1634; it was given the status of a separate parish in 1649, but this was suppressed in 1669, since which time it has taken the

*Fig. 2. Initial Cross and Lettering on Bell at Bo'ness.*

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place of the old church of Kinneil as the church of that parish, which has since gone by the name of Borrowstounness. The bell was probably brought from Kinneil when that church fell into ruin: it hung in the belfry of the old church of Bo’ness till the new one was built in 1887. Its place has been taken by a large new bell, cast by Taylor of Loughborough in 1894, and it is now preserved in the new parish church as an object of historic value and interest.

The other two mediaeval bells are the great bell, the third, at Linlithgow, and the bell at Uphall. These are from the same foundry, and are of undoubted Scottish casting. The Linlithgow bell is 34½ inches in diameter. It has a high and rather pointed crown, with very large angular canons, quite plain. The shoulder is surrounded with rims and mouldings, so large and numerous as to give the bell a somewhat overloaded, though massive appearance. The waist is long and rather straight. The soundbow is comparatively small and projecting. There are simple mouldings above it; just above the lip is a wide hollow moulding, very shallow. The tone is not particularly good. The clapper is modern.

The inscription is chiefly in black letter, with a few small Lombardic capitals:

+ Lynlithqw S me villa S fecit S vocor S alma S maria S Tum S iacobi S quarti S tempore S magnificiSeno millenoquadringeno S nonageno.

The black letter is in fairly high relief, but the whole inscription is very thickly set, and is not very clear. The 1’s are rather more ornate than the other letters. The Lombardics are the L and Y at the beginning of the word “Lynlithqw,” the initial T of “Tum,” and the final S of “magnificiS.” These Lombardic letters are very plain, and are too small for the inscription, being the same height as the black letters, viz. ⅛ inch (fig. 3).

Immediately under the initial cross at the beginning of the inscription, the rims and mouldings are broken by the insertion of a large
crown, which surmounts a shield, bearing the royal arms of Scotland, placed at the top of the waist of the bell. This shield is 2\(\frac{5}{8}\) inches broad by 3\(\frac{1}{8}\) inches high, and immediately below it is a smaller shield, 1\(\frac{1}{2}\) inches broad by 1\(\frac{3}{4}\) inches high, on which is a circular medallion
seemingly representing the burgh seal, which here bears a half-length figure of an angel, surrounded by an illegible black letter inscription, and holding a shield charged with the greyhound and tree, in later times considered the reverse of the seal of Linlithgow (fig. 4).

In a direct line below the cross and shields, and immediately above the soundbow, is a rectangular die bearing a St Andrew's cross, followed by a black letter "t," thus: Xt (fig. 5). These are 1¾ inches high. They appear to be a founder's mark. They also appear in the same place on the bell at Uphall, 1503, and on a bell at Dundonald,
Ayrshire, 1495. It may therefore be considered certain that these three bells are by the same founder.

The little Uphall bell, which is only 13\(\frac{3}{4}\) inches wide at the mouth, is a very similar casting, except that it is smoother, neater, and better proportioned. It is inscribed in black letter, which, like the Linlithgow inscription, has a few Lombardic capitals of a size too small.

The inscription runs:—

\[ \times \text{Inonore Sancte Nicholae Campana Ecclegie de strabork Anno Domini} \]

[on waist] \[M^\circ V^\circ iii\]

The initial cross, which is exactly like that at Linlithgow, but smaller, is placed in the position of a St Andrew's cross. Below it a shield, with the arms of Seton and Hay quartered, occupies the whole of the waist, and above the soundbow, below the date, is the Xt already referred to. The I in the inscription is a black letter capital; the other capitals are Lombardics (figs. 6 and 7).

Another bell by the same founder is at Dundonald in Ayrshire. It is 16\(\frac{1}{4}\) inches wide at the mouth, and is inscribed:—

\[ + \text{Sancte egidie ora pro nobis anno dni m^o cccc^o lxxv^to} \]

The cross is like that at Linlithgow, there is the same cresting of fleur-de-lys below the shoulder, and the same Xt on the waist.

It is clear that, whoever he was, this founder was casting bells in this part of Scotland from 1490 to 1503, but there is nothing known at present which will reveal his identity or where he worked. The bell at Dalgety in Fife may be his; it is not dated and has no Xt, but the lettering is similar and the fleur-de-lys crest is the same. There is another similar bell at Fowlis Easter, dated 1508, and also without the Xt.

At St Giles', Elgin, is a bell dated 1502, with a black letter inscription in similar lettering to that at Linlithgow, though of a little larger size. The o's are Lombardic, rather larger than the largest at Uphall,
but smaller than the smallest Lombardics at Linlithgow. Immediately below the group of rims beneath the inscription are the letters Xest. The X is a simple St Andrew’s cross like that which forms part of the founder’s mark at Linlithgow; the ε and s are small Lombardics, the same size as those at Uphall; the t is very rudely formed and is more like a rough representation of a hammer than a black letter t. It seems reasonable to conclude that we have here the
same founder's mark in another form, with the founder's initials in the middle. At Elgin the X is 3/8 of an inch high; at Linlithgow and Uphall, 1 1/4 inches.

At Closeburn, Dumfriesshire, is a bell by GH, probably George Hog, cast in the "Potterraw" (Edinburgh?) in 1606. Here the founder uses the crowned hammer of the Edinburgh Hammermen Incorporation as his mark, with his initials on either side. It may be conjectured from this that there may be some connection between the hammer-like "t" of the Elgin bell and the distinct hammer used by Hog. If this be the case, these bells with Xt may possibly have been cast in Edinburgh at a foundry which has not yet been traced.

At Queensferry is a fine seventeenth-century Dutch bell, cast in 1635 by the well-known founder Michael Burgerhuys of Middelburg, who cast many bells for Scotland, notably the great bell of St Nicholas, Aberdeen, "Auld Lowrie," which was broken in the fire of 1874. This bell, like "Auld Lowrie," has a long inscription in more than one line, and in lettering of two sizes, and it has the same ornament of dragon-headed strapwork above the inscription. Burgerhuys' bells are still very common in Scotland, but this is an exceptionally ornate example. While many of them are very much alike, and have the same inscription, with nothing to connect them with the churches where they hang, it is clear that this bell was actually cast for Queensferry.¹

Until recast in 1884, there was a bell by the same founder at Bathgate, dated 1620.

Next in date, and also of Dutch origin, is the bell at Carriden, cast by Peter Ostens of Rotterdam in 1674. This has Ostens' mark—a recumbent ox—and the same lettering and ornaments as his bell at Banchory Ternan, Kincardineshire, cast ten years earlier. Like that bell and the one at Kinneff, Kincardineshire, the casting is almost as

¹ The writer intends to illustrate Burgerhuys's ornaments and lettering in a work on the Church Bells of Aberdeenshire which he has long had in preparation.
smooth as a piece of plate, and the frieze of grapes and vine leaves extremely refined and delicate\(^1\) (fig. 8).

Another Dutch bell is in the Tolbooth Steeple at Queensferry, dated 1694, and cast by Adriaen Dop. It is a small plain casting, with an inscription in two lines, and no ornament except what appears

\(^1\) See *Church Bells of Kincardineshire*, pp. 15 and 24, and Plate I.
to be a small rose at the beginning of the inscription, now much corroded. This bell is now disused.

Fig. 9. Part of Inscription and Ornaments on the First Bell at Linlithgow. (From a cast.)

The first at Linlithgow is certainly a Dutch bell, and probably cast at Amsterdam. The account for taking down, shipping to Holland, and recasting this bell is preserved among the burgh records of Linlithgow, with a letter from one Andrew Storie, the shipmaster, who
writes from Amsterdam on 24th March 1719, and speaks of the bell as of "145½ lb. Amsterdams weight."

The inscription runs:

+ CIVITAS LINNUCHI ME FECIT AMPLIOREM ME DR NUO REFECIT
  ANNO DOMINI J719
  "AREGNI GEORGY REGIS 5° VOOR SICUT QUONDAM MEG DUNCAN"

The lettering is rather irregularly placed on a single wide band, with no division between the two lines. Above is a small indistinct frieze; below is a border of acanthus leaves, in very low relief. On the waist there are the arms of Linlithgow as upon the reverse of the burgh seal, within a wreath formed of two branches of palm (?), the lower ends of which lie upon the mouldings between waist and soundbow. The lettering is very sharp and clear and in high relief (fig. 9).

With these Low Country bells must be classed the late eighteenth-century Danish bell, which at one time hung at Abercorn Church, but is now preserved at Hopetoun House. It is the most elaborately ornamented bell in the district, and is inscribed:—

SOLIDEO GLORIA + ME FECIT + M + C + TROSCHELL
  + COPENHAGEM + A6 J78J.

On the waist is a large monogram CT surmounted by a crown with five arches and a floral ornament on each side. The lettering is very plain. Above and below the inscription is a vigorous border of acanthus leaves.

Turning to the later bells of Scottish casting, we find a bell at Kirkliston inscribed:—

[Head in wreath] FOR • KIRKLISTOVN • SOLI • DEO • GLORIA.
  [Head in wreath] ANNO • J687:

It was cast by John Meikle, of Edinburgh, who has reproduced Ostens' strawberry-leaf border below the inscription, and Burgerhuys' strapwork frieze above. The lettering is large and bold.
At Torphichen is a later and plainer example of Meikle's work, dated 1700, with his usual small thick lettering and no ornaments.

In the Tolbooth Steeple at Queensferry is a bell of somewhat commonplace English appearance inscribed:

EX DONO HENRJCJ CVNJNGHAME DE BOQVHAN J72J.

There is a similar bell at Buchanan, in Stirlingshire, and some small ones not unlike it in the carillon in Stirling Town Steeple.

The only other bell in the county cast before the nineteenth century is the second at Linlithgow, which is a poor specimen of the work of the ubiquitous Whitechapel foundry, London, cast by Pack & Chapman in 1773, and only remarkable as having two large medallions upon the waist displaying the obverse and reverse of the burgh seal very roughly represented.

There are two handbells, one at Torphichen, dated 1734, and one at Queensferry Town Steeple, originally cast by John Meikle at Edinburgh in 1692, but recast in 1823.

As in most parts of Scotland, the tradition remains in Linlithgowshire of ringing the bells of the parish churches at some early hour as well as for service, and in two cases, viz. Linlithgow and Livingston, a bell is rung immediately after service.

It is well known that in post-Reformation times a bell was rung for the service that was conducted by the reader before the minister came in. The early bell ringings still remaining are no doubt survivals of this, but in the country parishes, at any rate, they also probably come down from a still earlier time. In the medieval church the Sunday morning service consisted of matins with lauds, prime and terce, followed by a procession and the principal mass of the day. The early bell ringing may originally have been that for matins, the second that for procession or for mass, continued in post-Reformation times for the reader's service and the minister's service, the ringing for the modern 12 o'clock service being a later addition. Thus the early
ringings remain, though the services which gave rise to them are gone. It is rash to dogmatise, but it has been somewhat hastily assumed that these early ringings are merely relics of the reader's service. Similar customs survived in England, where there was no such long tradition of a reader's service, but where the other services had been transferred to a later time.

It is often impossible accurately to identify the particular ringings, and in many cases, especially in towns, they have no doubt been gradually transferred to later hours.

At Linlithgow, on 8th November 1529, it was agreed by the Town Council, "that the paroch clerk ryng the matin bell at fyve houris in somyr and sex houris in winter, and to ryng the bell at evin, bayth somyr and winter, as consuetude is, and nychtlie to ryng curfowe."

It would seem as if the bells were only rung for the services in choir and at the high altar, and not for any of the numerous masses which were said at side altars every half-hour from 5 a.m. in summer, or 6 in winter, until noon. And it is clear that in the case of great churches like Linlithgow, the times of ringing have frequently been altered. It is rather in the country than in the town churches that it is reasonable to look for the oldest survivals in times of ringing.

After the Reformation the ringing and the services at Linlithgow are all later, except in the evening. In the early part of the seventeenth century the reader's service was at 8 a.m., and there was ringing for this at 7, 7.30, and 8. The preaching was at 9.30, and was rung for at 8.30, 9, and 9.30. Evening service was at 5. The ringer was ordered to ring "as lang as ane may gang betwixt the West Port and the Kirk."¹

The Linlithgow Obits, or foundations for anniversary requiem services for particular persons or families, all contain the entry—"the Beadle, for ringing the bell through the town, ii d."

¹ Burgh Records, 10th January 1623, qu. Ferguson, Ecclesia Antiqua, Edin., 1905, p. 66.
1425 to 1556. This, of course, refers to the ringing of the "deid-bell," or parish handbell, the use of which at the actual funeral procession survived all over Scotland almost till within living memory.

Table Showing Times of Ringing of Church Bells on Sundays.

N.B.—The small figures refer to the particular bells used, thus 9\(^{2}\) means that the second bell is rung at 9 o'clock. "15 m." = fifteen minutes during which the bells are rung; in other cases they are rung for five minutes or less. Square brackets indicate that former ringing at that hour is now discontinued.

<table>
<thead>
<tr>
<th>Parish</th>
<th>Time of Ringing</th>
<th>Time of Service and Ringing</th>
<th>Time of Ringing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathgate</td>
<td>8(^{2}) 10(^{2})</td>
<td>11(^{2}) (15 m.)</td>
<td>12</td>
</tr>
<tr>
<td>Ecclesmachan</td>
<td>[8] 10</td>
<td>11.30 (15 m.)</td>
<td>12</td>
</tr>
<tr>
<td>Queensferry</td>
<td>8   10</td>
<td>12 (15 m.)</td>
<td>12</td>
</tr>
<tr>
<td>Torphichen</td>
<td>8   10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uphall</td>
<td>8   10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linlithgow</td>
<td>9(^{2}) 10(^{3})</td>
<td>11.15(^{1,2,3}) (15 m.)</td>
<td>13</td>
</tr>
<tr>
<td>Kirkliston</td>
<td>9   10.30</td>
<td>11 (Sun. Sch.)</td>
<td>12</td>
</tr>
<tr>
<td>Livingston</td>
<td>9   [10]</td>
<td></td>
<td>1.30</td>
</tr>
<tr>
<td>Carriden</td>
<td>9   10.30</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Abercorn</td>
<td>10</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Dalmeny</td>
<td>10</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Whitburn</td>
<td>10</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

Table Showing Times of Ringing of Town Bells, and of Church Bells on Week Days.

<table>
<thead>
<tr>
<th>Place</th>
<th>A.M.</th>
<th>P.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathgate (church)</td>
<td>5.30 6(^{2})</td>
<td>1 6 Exc. 8 Exc.</td>
</tr>
<tr>
<td>Bo'ness</td>
<td>5.30 6 sum.</td>
<td>Sat. Sat.</td>
</tr>
<tr>
<td>Kirkliston (church)</td>
<td>5.40 10</td>
<td>1 2 6 8 Exc. 10 Sat.</td>
</tr>
<tr>
<td>Linlithgow</td>
<td>5.40 [5 summer, 6 winter]</td>
<td>8 Exc. 10 Sat. only.</td>
</tr>
<tr>
<td>Queensferry</td>
<td>5.40 [5 summer, 6 winter]</td>
<td>Sat. only.</td>
</tr>
</tbody>
</table>

\(^{1}\) Ferguson, op. cit., pp. 336–348.
Belfries.

In the north-east of Scotland there was a remarkable local development of ornate belfries of very striking design in the sixteenth and seventeenth centuries. Even in the eighteenth century some good ones were built, and rich examples of earlier date were sometimes preserved from older churches. Linlithgowshire cannot be said to present belfries of exceptional merit, but there are a few that are deserving of mention. At Abercorn, upon the gable over the chancel arch, is a simple arched belfry with a saddle-back top, absolutely devoid of ornament, and probably dating from the thirteenth century (fig. 10). This is the simplest possible kind of stone belfry, and is the type from which the others developed. There is a double belfry of similar type, but probably later in date, on the west gable of Kinneil old church, now in ruins, and the sill of one on the east gable of the choir of the White Friars' church at Queensferry. This is a most unusual position for a belfry.

In and after the sixteenth century a development took place in Scottish belfries. They were built much deeper from back to front, the sides were pierced, and the roof made pyramidal, various ornamental accessories, such as pinnacles and angle shafts, being added. Latterly this kind of belfry degenerated into a structure like a rough stone imitation of a bird-cage, generally finished with a ball on the top—a form of belfry which is a familiar feature of the barn-like churches with which Scotland was covered from the early part of the eighteenth century to the end of the first quarter of the nineteenth.

At Queensferry there is a good plain belfry built at the same time as the church, in 1635. It is square in plan, has a pyramidal roof, and is very plain. At Kirkliston there is a belfry with square pillars at each corner, the edges of which are chamfered; it has a low pyramidal roof, and diminutive pinnacles at the corners, each crowned with a
small ball. There is a weather-cock on the top. It probably dates from late in the seventeenth century. It is some 5 feet square and 5 feet 4 inches from sill to cornice, and the pillars are 10½ inches thick. Two broken pieces of a gravestone are built into the belfry as lintels to the side openings, and bear the following remains of an inscription, as far as can be seen. The date seems to be 1596.
Over the west end of Torphichen Church is a belfry of the late kind with a ball on the top of a pyramidal roof. It is worthy of notice because of its good proportions, but it marks the period when belfries began to be dull and featureless structures devoid of architectural merit.

A List of the Bells Arranged According to Parishes.

In the following list particulars are given of all the bells in parish churches and of the older bells in burghal possession, with their inscriptions and the diameters at their mouths. The inscriptions have been reproduced not merely with verbal and literal accuracy, but with some attempt to indicate the character of their lettering by the use of the most similar styles of type. It must be borne in mind that this only provides an approximation and is not facsimile reproduction. All crosses and marks are indicated. Except where the contrary is stated, all the inscriptions are in lines as shown and are situated between rims just below the shoulders of the bells. In the cases of the handbells it has been necessary to employ type of a size much too large to be in any sense in scale with that used for the inscriptions on the other bells.

Abercorn. St Wilfrid.

C & G Mears Founders London 1857

Diameter, 20 inches.

In modern arch belfry at west end of north aisle.

There is an ancient belfry on east gable of nave, over chancel arch, consisting of a single arch with a pointed roof, 38 inches high by 22 inches wide by 27 inches deep from west to east; sides 11 inches
THE CHURCH BELLS OF LINLITHGOWSHIRE.

thick and 27 inches high to spring of arch. Probably thirteenth-century work (fig. 10).

The previous bell was cracked, and is now preserved at Hopetoun House; see below. This bell replaced an older bell, which is said to have lain in the churchyard for many years, until removed by the first Free Church minister, who went out at the Disruption in 1843.

The bell now at the United Free Church appears to be a recent casting. The Rev. J. N. Balfour, the present minister, writes that "it is a mistake to suppose that any bell was removed from the Parish Churchyard at the Disruption for the Free Church. ... the bell ... which was also in the old church, is an old ship bell, which was bought by Mr Currie, who was minister here shortly after the Disruption."

HOPETOWN HOUSE.

Here there is preserved the former bell of Abercorn Church; it is inscribed:

\[ \text{SOLI DEO GLORIA + ME FECIT + M + C + TROSCHELL + COPENHAGEN + Ao J78J} \]

Diameter, 20½ inches.

An exceedingly richly decorated bell, beautifully cast. Said to have been taken from a Danish man-of-war at the battle of Copenhagen.

BATHGATE. Dedication unknown.

1. SOLI DEO GLORIA. MICHAEL BURGERHUYS ME FECIT A.D. 1620.
   GLASGOW: RECAST A.D. 1884. BY JOHN C. WILSON & C\textsuperscript{o}. FOUNDERS.

Diameter, 18 inches. Weight, 1cwt. 1qr. 5lbs.

2. CAST BY JOHN WARNER & SONS LONDON 1884.
   [on waist] PRESENTED BY JOHN WADDEL ESQ\textsuperscript{r}.
   OF INCH 1884.

Diameter, 36 inches.
The first used to hang in the old church.
Rung as follows:—
No. 1. For meetings of Kirk Session.
No. 2. Sundays: 8 a.m., 10 a.m., 10.45-11 a.m. (for service),
6.15-6.30 p.m. (for service).
Week days: 6 a.m., 10 p.m.

BORROWSTOUNNESS. St Katharine.

JOHN TAYLOR AND CO. FOUNDERS LOUGHBOROUGH
[on waist]
BORROWSTOUNNESS PARISH CHURCH ERECTED 1887
TOWER SPIRE AND BELL ADDED 1894

Diameter, 43 inches. The largest bell in the county.
Old Bell:


Diameter, 23\(\frac{1}{2}\) inches. Note, E\(\flat\).

A very fine bell now preserved in the new parish church as an object of historical and artistic value. Shoulders smooth and rounded; no rims on crown; large plain rounded canons, one single canon broken. Three rims above soundbow, the middle one larger than the others; two small ones above lip (figs. 1 and 2).

This bell was brought from the old church, whither it probably came from the parish church of Kinneil, where there is a double belfry still remaining. The inscription was no doubt continued on the other bell; as it is here, it is evidently unfinished.

The church at Bo'ness was built about 1634 as a chapel in the parish of Kinneil. In 1649 Bo'ness was made a separate parish, but in 1669 William and Anne, Duke and Duchess of Hamilton, obtained an Act of Parliament declaring Bo'ness the church of the two united parishes. When the new church was built in 1887 the old church was sold to the Scottish Episcopal Church, and an old factory bell now hangs in the plain bird-cage belfry on the west end. The church was mostly rebuilt in 1775 and again in 1820, and the belfry probably dates from one or other of these times.

TOWN STEEPLE.

A modern bell by Wilson of Glasgow, 1860 (36 inches).
CARRIDEN.  
*Dedication unknown.*

```
[small flower] PIETER [recumbent ox] OSTENS GOOT MY TE
[same line] ROTTERDAM. A° 1 6 7 4
```

Diameter, 16½ inches.

Rung on Sundays at 9 a.m. and for service at 12.

A good example of Ostens’ work, most delicately cast, with a frieze of grapes and vine leaves above inscription, and a border of strawberry leaves below.

The bell of Banchory Ternan, Kincardineshire, is here (fig. 8) illustrated, as it is an almost identical example of the same founder’s work. It is impossible to photograph the Carriden bell.

DALMENY.  St Cuthbert.

*T Mears of London Fecit 1832*

Diameter, 19½ inches.

In modern bird-cage belfry over west end.

Rung on Sundays at 10 a.m. and from 11.50 to 12 for service, and from 5.50 p.m. to 6 for service.

SCOTTISH EPISCOPAL CHURCH of St Mary the Virgin, QUEENSFERRY.

*No Bell.*

This is the old church of the White Friars, and consists of chancel with central tower and south transept. The tower seems to be unfinished. It has a barrel vault, in which are two holes for ropes, showing that there must have been two bells at one time. Over the east gable are remains of a belfry, which may have contained a sanctus bell, and which consist of three plain rounded corbels, supporting a projecting sill, of which the edge has a hollow moulding. The central corbel is narrow and those at the sides are wide.¹

The church dates from late in the fifteenth century or early in the sixteenth.

¹ See illustration on p. 307 of vol. iii. of Macgibbon and Ross, *Ecclesiastical Architecture of Scotland.*
ECCLESMAChAN. St Machan.

Diameter, 17 inches.

In an insignificant bird-cage belfry over west end.
Rung on Sundays at 8 a.m. (formerly), 10 a.m., and for service at 12.

KIRKLISTON. Dedication unknown.

Diameter, 29 inches.

By John Meikle of Edinburgh. Ornaments reproduced from those of Michael Burgerhuys (above inscription), and Peter Ostens (below inscription). Cf. bells at Carriden and Queensferry.

Above the upper ornamental border may be seen the angular markings formed by the top edge of the stamp; this is absent in Burgerhuys' use of the ornament. The bell, like some others by the same founder, is somewhat tub-shaped.

Lettering is in unusually high relief; edges of letters very sharp. The small ornament appears to be a head surrounded by a wreath. The stock and hangings seem largely original. Centre part of stock large and raised.

In bird-cage belfry of about the same date, over east end of saddleback tower, which is at the west end of the church. Cf. Uphall, Torphichen, and Crichton.

Rung on Sundays at 9 a.m., 10.30 a.m., 11 a.m. for a Bible class, 12 for service, and 6.30 for service, on alternate Sundays; on week days at 5 a.m. in summer, 5.30 a.m. in spring and autumn, and 6 a.m. in winter, and 8 p.m. all the year.

From Kirk Session Records:—

I am indebted for these extracts to Mr H. O. Grieve, Session Clerk.
"March 29. 1687.  
"Weighted for Sir Hugh Wallace of Ingliston to John Meikle Founder an Riven Bell, weighting 23 stan & 5 pound."  
"Alexr Clark."

"At Kirkliston.  
"August 22. 1687."

"The whilk day Sir John Dalrymple of New Liston, his majesty's Advocate, John Sken of Hallyards and Sir John Wallace of Ingliston, met with the Minister, according to an intimation made by the said minister from the pulpit, the last Lord's day, and the said heritors, having found that the casting the Church Bell, with the additional metal and the working thereof, together with some additional charges will extend to 25 lib or thereby, and finding it necessary that the founder be presently satisfied for the casting of the said Bell for the additional metal and the working thereof, they ordered Thomas Wemyss collector, to go into Edinburgh some day of this week there to satisfy the said Founder, and having brought out the Bell with all diligence to employ tradesmen for hinging it in the steeple of the said Church."

LINLITHGOW. St Michael.

1. +Civitas Limnuchi me fecit ampliorem Me De [same line] Nuo Refecit Anno Domini 1778 vo 
   'Aregni Georgy Regis s.to Vocor Sicut Quondam
   Meg Duncan [same line]
   [on waist] Greyhound and Tree
   within wreath

Diameter, 18½ inches. Note, B₃.

2. Pack & Chapman of London Fecit 1773 <><><><><>

[on waist] St Michael

Greyhound and Tree

Diameter, 30¾ inches. Note, E₃.
3. 

\[4\] L\text{ynlithqw} \ \S \text{ me } \text{villa } \S \text{ fecit } \S \text{ bocor } \S \text{ alma } \S \text{ maria} \S \text{Tum } \S \text{iacob} \S \text{quarti } \S \text{ tempore } \S \text{ magnificiS} \S \text{milenoquadringeno } \S \text{nonageno}

\[\text{on waist}\]

\[A\]

\[B\]

\[\text{above soundbow}\]

\[X\]

\[t\]

A = Royal arms.
B = Seal of Linlithgow.

Diameter, 34\(\frac{3}{4}\) inches. Note, B.

No. 1. Frieze above inscription and border of leaves below are from stamps of earlier date than the bell; they are in very low relief and are blundered in many places (fig. 9). Canons rather angular; each has a human face on the angle, but much worn. Large and beautiful wreath on waist encloses reverse of burgh seal. Rung by lever.

No. 2. Tone good, but a rough casting hardly worthy of the traditions of the Whitechapel Foundry, which is one of the most famous in England. The medallions, representing obverse and reverse of burgh seal, are rough and poor. Crown staple broken; crown pierced on each side for piece of iron from which the clapper hangs.

No. 3. One of the largest mediaeval bells in Scotland. Long waist rather straight, soundbow somewhat small and projecting; high pointed crown with huge plain angular canons. Shoulder covered with rims and mouldings. Clapper modern. Tone not particularly good. Black letter inscription in high relief; Lombardic initial L for “Lynlithqw.” The y also Lombardic, but smaller; T of “Tum” and final S of “magnificis” also Lombardic. As at Uphall (q.v.), the Lombardics are a size too small for the black letter (figs. 3, 4, 5).

The relations of the notes of these bells may be thus expressed:

<table>
<thead>
<tr>
<th>Scale of B(\text{b})</th>
<th>Scale of B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st. Keynote.</td>
<td>1st. Leading note.</td>
</tr>
<tr>
<td>2nd. Subdominant.</td>
<td>2nd. Third.</td>
</tr>
<tr>
<td>3rd. Semitone above octave of keynote below.</td>
<td>3rd. Keynote.</td>
</tr>
</tbody>
</table>
The bells are hung between four beams which rest on corbels in north and south walls of tower.

They are rung as follows:

**On Sundays.**

<table>
<thead>
<tr>
<th>Time</th>
<th>Hour</th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>9 a.m.</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>10 &quot;</td>
<td>5 &quot;</td>
</tr>
<tr>
<td>All at once</td>
<td>11 &quot;</td>
<td>15 &quot;</td>
</tr>
<tr>
<td>3rd</td>
<td>about 1 p.m.</td>
<td>2 to 3</td>
</tr>
<tr>
<td>All at once</td>
<td>6.15 &quot;</td>
<td>15 &quot;</td>
</tr>
</tbody>
</table>

**On Marches Day.**

Linlithgow Marches Day, upon which the Riding of the Town's Marches takes place, is the Tuesday following the second Thursday in June. The procession assembles in the Market Place at 11 a.m., when all the bells are rung simultaneously. It then proceeds to Linlithgow Bridge, the bells ceasing as it passes out of sight over the Horsemarket Head at the west end of the town. When it reappears at the same place on its way back, the ringing is resumed, and continued while it passes eastwards on the way to Blackness. As it passes out of sight at the Duke's Entry the ringing ceases, and is begun again when the procession reappears there, ending when the procession breaks up about 4.30 p.m. after it has passed thrice round the Cross Well.

**On Special Occasions.**

The bells are all rung simultaneously from 12 to 1 p.m., and from 7 p.m. to 8 p.m.

**Extracts from the Town Records relating to the Bells.**

I.—The 1st Bell.

November 1718.

It [em] for putting the bell called Mig Duncan a bourd of Alex't Starks Ship to be sent to Holland to be cast new again . . . 0 : 12 : 00

It [em] to Thomas Whyt for tackin down Mig Duncan to Bor: ness 0 : 04 : 00

Rotterdam 1719 : 16 March

Mr: James Gaff Merch't: in Linlithgow Debet to Andrew Storie With Will'm: Clark Merch't: p': the hopefull binnie John Air Mr': for Bor: nes Viz

for the Tong of s\textsuperscript{1}: Bell, is 7\(\frac{1}{2}\) lb. at 7 sh
for Setting the Moto & Towns-Arms on the s\textsuperscript{4}: Bell
for Carving the moto & Arms on Timber Ere Could put it on
the Bell

Rebate Viz.

\[2 : 14 : 0\]
\[2 : 0 : 0\]
\[5 : 0 : 0\]

\[\text{By Order Returned, to you}\]

Meg : Duncan's old Bell weight 94\(\frac{1}{2}\) lb at 45 pr : 100 lb

\[\text{Shorebringing & to the sailors for there Carefulnes}\]
\[\text{Board putting & Barrel to put the Bell in while aboard}\]

\[\text{92 : 13 : —}\]

\[\text{Rotterdam 24 March 1719.}\]

\textit{Mr: James Gaft.}

\textit{Sr: I'm favoured with Yours of the 13 October, Accompanying the smal bell (Meg : Duncan) W\textsuperscript{ch}: by advice of Your Majestrats & Town Councell Sent over to me to Cause found hit a New, adding 55 lb to the 95 lb she Weighted, In Answer Returned to You 16 Instant, w\textsuperscript{ch}: Mr: Wm: Clark Merch\textsuperscript{t}: p\textsuperscript{r}: y\textsuperscript{r}: hopeful-binnie John Air M\textsuperscript{r}: for Borrestones, The s\textsuperscript{1}: Bell Renued, is Now 145\(\frac{1}{2}\) lb Amsterdams Weight, Charg\textsuperscript{t}: in Addition of Weight founding the Bell New Tong, Carving the Moto & Towns Arms on Timber, Setting them on the Bell, Shoreb', sailors dues, Board-putting & Barrel for the bell Rebate being the old Bell, is p\textsuperscript{r}: prefixt acc\textsuperscript{t}: £92 : 13sh : for W\textsuperscript{en}: as ordered, I'm to draw on You, payal\textsuperscript{t} to Mr: Archbald Grosert on order, at the Curant Exchange, Not doubting Your due Complyance I'm Sir, Your humbl: Serv\textsuperscript{r}.}

\textit{Andrew Storie}

\textit{To}

\textit{Mr James Gaft}

\textit{Merchant In}

\textit{Linlithgow}

\[\text{D\textsuperscript{r}: Mr. William Clark Merchant}\]

[Endorsed]

108 lib 2 sh payed
for Renewing the
Bell Meg : Duncan
1719
II.—The 2nd Bell.

London May 5th 1773.

Received on Board of the Samuel and Jane James Drummond Master for Bo'ness, one sound church bell, stock, clapper, and a case, consigned to Linlithgow Town, by Edinburgh Scotland

Mr Henry Gillies, for Linlithgow Town

3rd April 1773

Bo' of Pack & Chapman.

<table>
<thead>
<tr>
<th></th>
<th>qr</th>
<th>lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>To one Bell</td>
<td>w</td>
<td>6„ 3„ 5„</td>
</tr>
<tr>
<td>one Clapper</td>
<td></td>
<td>21½</td>
</tr>
<tr>
<td>one pair of Brasses</td>
<td></td>
<td>7½</td>
</tr>
<tr>
<td>one Stock Iron work, wheel, roller, rope</td>
<td></td>
<td>5„ 0„ 0</td>
</tr>
<tr>
<td>Capboard Tees and Strapples, and fitting on</td>
<td></td>
<td>5„ 0„ 0</td>
</tr>
<tr>
<td>&amp; To a Case for the wheel, &amp; package</td>
<td></td>
<td>3„ 3„</td>
</tr>
<tr>
<td>To Cash paid to an Engraver, for Engraving the Coats of arms</td>
<td></td>
<td>„ 2„</td>
</tr>
<tr>
<td>To a plate for Engraving them on</td>
<td></td>
<td>„ 2„</td>
</tr>
<tr>
<td>To Cash paid, wharfage, porterage, &amp;c.</td>
<td></td>
<td>„ 2„</td>
</tr>
<tr>
<td>and Shipment the new Bell &amp;c.</td>
<td></td>
<td>„ 2„</td>
</tr>
<tr>
<td>19th Mar: To Cash paid freight. Landing Loading</td>
<td></td>
<td>„ 14„</td>
</tr>
<tr>
<td>and Cartage &amp;c of old Bell</td>
<td></td>
<td>5 „ 3 „ 0½</td>
</tr>
</tbody>
</table>

£55 „ 3 „ 0½

Cr

<table>
<thead>
<tr>
<th></th>
<th>qr</th>
<th>lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>19th Mar: By an old Bell</td>
<td>w</td>
<td>5„ 3„ 17 Gro</td>
</tr>
<tr>
<td>old Iron Staple</td>
<td>d</td>
<td>8</td>
</tr>
<tr>
<td>neat</td>
<td>5„ 3„ 9„</td>
<td>at 10½</td>
</tr>
<tr>
<td>By an old Clapper</td>
<td>=</td>
<td>20th</td>
</tr>
<tr>
<td>By old Iron</td>
<td>=</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ballance £27 „ 10„ 4½
St.

We received your favour of the 4th. March last, as also the old Bell, and agreeable to your order have Cast you another; and shipt it according to the Receipt, as on the otherside: which I hope will come safe to hand, and answer your expectation—A Bill of the charges you have as on the other side, which I hope you will find right,

Please to request the person who puts up the Bell, to screw the stock close down on the Bell, as the screws may get a little loose before she may be got up: and to let the Brasses in straight, and level, with each other, with due respect for self & Co.

Your most ob' Hble ser' to Com'd

Tho Pack.

COUNTY BUILDINGS.

A modern bell by Wilson of Glasgow, 1866 (35½ inches).

LIVINGSTON. Dedicated unknown.

No Inscription.

Diameter, 16 inches.

This bell has neither inscription nor ornament. It may very likely be of the same period as the church, which was rebuilt in 1732. It hangs in a belfry of the bird-cage type, the sides of which are closed in with louvre boards, giving the whole structure the appearance of a pepperbox. Underneath the bell a chimney-like passage in the west wall of the church leads to a doorway, which opens on to the gallery stair in such a position that it is impossible to get a ladder placed in it. The bell is therefore inaccessible. The present minister, the Rev. T. Aiton, informs the writer that some years ago the bell fell down, and hit the beadle as he rang it at 9 a.m. on a Sunday morning, and that he then examined it and found no inscription on it.

Rung on Sundays at 9 a.m., formerly also at 10 a.m. (this was discontinued about 1885), at 12 for service, and at the conclusion of the service about 1.30.
QUEENSFERRY. No special dedication?

\[ \text{SOLI DEO GLORIA MICHAEL} \]
\[ \text{MERCHANT OF EDENBRIDGE GIFTED THIS BELL TO THAT TAKES IT FROM THE ANNO DOMINO 1635} \]

\[ \text{BURGERHUYSS ME FECIT DAVID KING THE KIRK OF THE QUEENS FERRY CURSED BE THEY} \]

Diameter, 28\(\frac{1}{2}\) inches. Note, C.

A fine example of the work of Michael Burgerhuys of Middelburg. “An excellent bell which the shipmasters brought from Holland at the erection of the church” (New Statistical Account).

In massive and picturesque bird-cage belfry over west end.

Rung on Sundays at 8 a.m., 10 a.m., 11.15 to 11.30 for service, and in recent times from 5.45 p.m. to 6 for service.

TOLBOOTH STEEPLE.

1. \(\text{THE SEAMEN OF QUEENSFERRIE DID GIFT THIS BELL TO THE TOWNE ANNO 1694 ADRIAEN DOP FECIT}\)

Diameter, 14\(\frac{1}{2}\) inches.

2. \(\text{EX DONO HENRY GUNSGHAME DE BOGHAN J 72 J.}\)

Diameter, 21\(\frac{1}{2}\) inches. Note, B\(\text{b}\).

No. 1. Hung between beams in upper part of steeple; disused. A floor has been made across the beams beneath the bell, which has been turned up, and now rests upon the floor in a position in which it cannot be used.

Shank-headed; has mouldings on crown. Sharp-edged shoulders; inscription in two bands close together some little distance below shoulder. Three rims above and two below soundbow. Surface very badly corroded. Inscription in very plain letters preceded by a kind of rose, the exact nature of which cannot now be determined.

No. 2. Hung between beams immediately above clock, which strikes upon it. Three-quarter wheel, and nailed straps.

Rung as follows:—8 p.m. except Saturdays, 10 p.m. Saturdays only. No ringing on Sundays. Before about 1900, was also rung at 5 a.m. on
second Tuesday in March (Calder Fair Day) and thence till the following Calder Fair (in October); at 6 a.m. on the Friday following the second Tuesday in October (Calder Fair Day) and thence till the following Calder Fair (in March).

In the Town Council Minute Book, under date 29th February 1720, is the following:

"Bailie George Hill reported to the Council that Bolquhan had made an offer of advancing & gifting to the Town as much money as well could build a Steeple & procure a Clock. The Council accepts of the same, & ordains the Bailies to return a letter of thanks to him therefor. And further ordains the same to be built opposite to the tolbooth Stair or any other convenient place about the tolbooth. And ordains Bailie James Jameson and Bailie George Hill and any two Councillors to oversee the work provide materials hire workmen & do everything necessary thereanent & report their diligence & progress from time to time to the Council."

The procuring of the bell is not mentioned. The present steeple was the result of this Act of Council. The clock referred to in it was superseded by the present one in 1897.

Mr Peter Miller, Town Clerk of Queensferry, to whom I am indebted for the extract given above, informs me that he has never traced whether there was an earlier steeple or where the present bell came from.

TOWN HANDBELL.

[incised] 10HN · MEIKLL · ME · FECIT · ED^R.
[on waist] 1692 · RECAST · J823

Lettering evidently imitated from Meikle’s. Iron handle, top wrapped with leather.

Diameter, 5\(\frac{2}{3}\) inches. Height, 4\(\frac{2}{3}\) inches. Height with handle, 10\(\frac{3}{4}\) inches.

Used by Town Crier.

TORPHICHEN. Dedication unknown.

10HN · MEIKL · FECIT · FOR TORPHICHIN · KIRK · 1700

Diameter, 21 inches.

A typical example of Meikle’s smaller, later, and plainer work. Has three small rims above and below inscription, but no ornament.
In picturesque and well-proportioned bird-cage belfry over west end.

**Handbell.**

[on waist] \[\text{This belongs to the contributors in Torp Hichen Parish J734}\]

Mouldings on soundbow and above lip. Oval ring handle.

Diameter, \(6\frac{1}{2}\) inches. Height, 5 inches. Height with handle, 8 inches. Width of handle, 4 inches.

**Uphall.** St Nicholas.

\[\text{X} \text{Xinonore Sancte Nicholae Campana Ecclesia de Strabork Anno Dni}\]

[on waist] \[\text{Shield} \quad \text{Mo VC iii} \quad \text{Xt}\]

Diameter, 13\(\frac{3}{4}\) inches.

An exquisite little bell, most delicately moulded, by the same founder as the great bell at Linlithgow. Black letter inscription, with black letter capital I for "In." Lombardic capitals for all the words except "de" and "strabork," and for MVC of the date, a size too small, as at Linlithgow. "Inonore" = "In honore," and the date reads \(\text{M}°+\text{V} \times \text{C}+\text{III}, \) i.e. \(\text{millesimo} + \text{quinto} \times \text{centesimo} + \text{tertio} = 1503.\) Strabork = Strathbrock, the old name of the parish. The founder's mark Xt is the same as at Linlithgow and Dundonald. A large shield occupies the whole of the waist at one point, and bears the arms of Alexander Seton of Touch, viz.:—Quarterly 1st and 4th, 3 crescents within a double treasure flory counterflory (for Seton); 2nd and 3rd, 3 inescutcheons for Hay of Tullibody, being the arms of his mother Egidia Hay, who married Sir Alexander Seton, first Earl of Huntly, 1426–27. The same coat of arms appears above the doorway of Greenknowe, Gordon, Berwickshire. See *Castellated and Domestic Architecture*, Macgibbon and Ross, iii. 544, fig. 483.

Single canons barbarously filed away so as to admit of a peculiar
kind of iron stock. Crown staple broken, and replaced by usual
device of iron loop passing through two holes in crown.
Rung on Sundays at 8 a.m. and for service at 12.

WHITBURN. Parish disjoined from Livingston in 1718. 1

<table>
<thead>
<tr>
<th>LEADBETTER</th>
<th>GLASGOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1857</td>
<td></td>
</tr>
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</table>

Diameter, 21½ inches.

Recast from old bell. Flat crown and rather long waist; eight very
large canons, with no central boss. Rims interrupted to admit of
inscription as shown above.
In bird-cage belfry over gable of south transept.
Rung on Sundays at 10 a.m. and for service at 12; also in recent
times for service at 6.30 p.m. once a month.
Monday, 13th January 1913.

Professor T. H. Bryce, M.D., Vice-President, in the Chair.

A Ballot having been taken, the following were duly elected:

Corresponding Member.
John Fraser, of H.M. Customs, 68 Restalrig Road, Leith.

Fellows.
Lieut.-Col. The Hon. Fitzwilliam Elliot, 16 Royal Terrace.
Sir William S. McCormick, LL.D., Secretary to the Carnegie Trust, 13 Douglas Crescent.
Charles MacPhater, 96 Langside Avenue, Glasgow.
Professor E. T. Whittaker, M.A., Hon. Sc.D., F.R.S.
Thomas E. Young, W.S., Auchterarder.

The following Donations were laid on the table, and thanks voted to the Donors:

(1) By W. Hornsby, B.A., and R. Stanton.

Piece of Woollen Cloth, 16 inches in length by 6 inches in width, found in the bottom of the well in the Roman Camp at Huntcliff, near Saltburn, Yorkshire.

In the early part of last year remains of a small Roman fort were discovered on the edge of Hunt Cliff, near Saltburn-by-the-Sea, in Yorkshire. The larger part of it had disappeared through coast erosion, but the whole of the west wall and small adjoining portions of the north and south walls, with the corner towers, were still traceable. Excavations carried out by Messrs Hornsby and Stanton showed that the fortification belonged to the last stage in the Roman occupation.
of Britain, having been occupied perhaps from A.D. 370 to 393. It was one of a series of forts erected to watch the east coast against the Saxon pirates. The most interesting results were yielded by the well, which measured 5 feet 6 inches in diameter and 14 feet in depth. Besides debris of late pottery and a number of fourth-century Roman coins, it contained beneath these as many as fourteen human skeletons of individuals varying in age from one year to sixty-five, mostly short in stature, with dolichocephalic skulls; while at the bottom were several pieces of cloth, one of which has, through the kindness of Messrs Hornsby and Stanton, been presented to the Museum.

The following technical description of the cloth is contributed by Professor T. Woodburn, of the Dundee Technical College:

The pattern is made from hard-twisted woollen yarn of about 6½ skeins, Yorkshire count. There are 36 threads per inch, and 19 or 20 picks per inch of the same yarn, and the pattern is technically known as a herring-bone stripe, i.e. the twill or effect moves in a diagonal direction to right and to left alternately. Each stripe is about 5⁄8 of an inch wide, and contains 22 threads. The warp and weft threads are perfectly defined so far as the weave is concerned, and they are interlaced in the 2 up, 2 down twill, right and left, to form a substantial fabric. The yarns, however, are somewhat irregular in thickness, although, owing to the compact nature of the texture, this irregularity is not noticeable.

The original colour of the fabric was probably black, but through age and exposure the colour has changed considerably: one surface appears of a dark brownish colour, whereas the other surface, although similar in small areas, is on the whole much lighter in colour, and varies from part to part from the dark brown shade to a comparatively light brown shade.

The cloth is well woven, but from a modern point of view it is somewhat unbalanced. Thus, while there are 36 threads per inch
in the warp, there are only 20 picks per inch of the same count of yarn. Now, although such proportions are very favourable to rapid production—a desirable condition—they should not be allowed detrimentally to affect the strength of the fabric. It is quite possible that the weaver who made it had no theoretical knowledge of the proper number of threads and picks to insert, beyond what he had derived from actual practice. We are therefore safe in assuming that, having arranged for his warp to contain a certain number of threads per inch (36 in this case), he found it impossible to introduce the same number in the way of the weft, but that in beating up the weft very hard he naturally succeeded in making a substantial piece of cloth.

The cloth is perfectly free from reed-marks, and almost as free from pinholes. This opacity is probably due to the fabric having been exposed to damp, which would have a tendency to cause the fibres to felt, and so obliterate such defects. A similar and equally heavy fabric, which has been woven in the Dundee Technical College to imitate the one under notice, shows these pinholes quite distinctly.

(2) By Keith R. Murray, B.A., F.S.A. Scot.

Twenty-three rudely chipped Implements of Flint, from the neighbourhood of Luxor, Egypt.

(3) By Mrs Mary R. Mathie, Clifton House, Crieff.

Leaden Figure 3½ inches in height (feet wanting), found at Forthar, Fife.

(4) By Charles S. Romanes, F.S.A. Scot.

Pair of Nutcrackers of iron, 5¾ inches in length, from Roxburghshire.

(5) By Alexr. O. Curle, Secretary.

Earthenware Jug, 8½ inches high, with loop-handle, yellowish-green glaze, and four thumb indentations round the bottom, which is 5 inches in diameter. Its locality is unknown.
(6) By His Highness the Prince of Monaco.

Les Cavernes de Font de Baume. Fol. 1912.
Les Cavernes de la Région Cantabrique (Espagne). 2 vols. 4to. 1912.

(7) By the Hon. John Abercromby, LL.D., F.S.A. Scot., the Author.

A Study of the Bronze Age Pottery of Great Britain and Ireland and its associated Grave-goods. 2 vols. 4to. 1912.

(8) By Robert Munro, M.A., M.D., LL.D., F.S.A. Scot., the Author.

Palæolithic Man, and Terramara Settlements in Europe. Being the Munro Lectures in Anthropology in connection with the University of Edinburgh. 8vo. 1912.

(9) By the Deputy Clerk Register, H.M. General Register House.


(10) By P. M. C. Kermode, F.S.A. Scot.


The following Communications were read: