III.

THE ROADS AND BRIDGES IN THE EARLY HISTORY OF SCOTLAND. By HARRY R. G. INGLIS, F.S.A. Scot.

I. The Roads in Early Literature.

It is somewhat curious to find that the word "road" does not appear to be used in any of the histories of Scotland earlier than the sixteenth century, and although there are records of numerous military and civil expeditions moving up and down the land, in no case are they described as using a highway. Up to the fifteenth century the movements of all the chief expeditions seem to have been across open country, and it was only the erection of bridges in the fifteenth, sixteenth, and seventeenth centuries that made definite the lines of traffic, which afterwards gradually developed into roads.

In England the conditions seem to have been quite different, for in 1345 a Scotchman on his way to London was provided with a conductor, to see that he kept to the highroad; and although the route is not named, he probably traversed the old road by Boroughbridge.

It is outside the scope of this paper to go into the question of the old paths or trackways by which people went from one place to another, but those who read the early chronicles of Scotland always feel bewildered in dealing with topography. Camelon, Dumbarton, Dunstaffnage and the chief towns are mere names, and the historic persons flit from one to the other with great difficulty at one time and with great ease the next; while the great wood of Caledon appears as an inconvenient obstacle somewhere in the centre of Scotland.

In the more historic times of the sixteenth and seventeenth centuries Falkland Palace, Linlithgow, and Holyrood, Edinburgh, Glasgow, Stirling, Perth, St Andrews, Dundee, and Aberdeen form the centres of traffic; while the pilgrimages of James IV. to Tain and Whithorn follow a well-defined itinerary; but in no case does

there seem to have been anything that could be called a road in the modern sense, and travellers appear to have gone as they pleased over the land, without anything in the shape of a road to guide them. The Lord High Treasurer's Accounts about 1545 give so many payments for the service of guides as to suggest that few defined roads existed even then; and when we find that guides are required from Edinburgh to Linlithgow, Perth to Dundee, Glasgow to Stirling, Stirling to Dumbarton, and so forth, it becomes evident that such tracks as existed were mere surface marks, and the land, apparently unfenced, lay quite open to all wayfarers.

On the other hand, we occasionally come across the word "road" (*via*) in old charters, showing that some kind of highway existed in early periods, but these can have been no more than mere tracks—definite near towns and villages where a causeway might be laid down on low-lying or swampy ground—and scattered paths on the more open hill ground. But regularly constructed or paved roads of definite width would appear to have been a development of the seventeenth century, although there might be a few roads at an earlier date.

II. The Bridges in Early Literature.

It is very noticeable how seldom bridges are referred to in the early chronicles. Fordun mentions those at Perth and Stirling, Wyntoun and Boece those at Stirling and Roxburgh. Bellenden in his transcript of Boece, and Leyland in his abridgment of the *Scalacronica*, in several cases mention bridges in their narrative, but these are not referred to in the original text. Barbour's *The Bruce* only makes mention of one in the Pass of Brander; Blind Harry's *Wallace* speaks of those at Stirling, Glasgow, Perth, and Lochawe, the first two of which are stated to have been of wood.

Of the early travellers, Hardyng (about 1430) alone mentions bridges—one at Stirling and one at Perth,—and although he described

Aberdeen, Ayr, and Glasgow, he is silent regarding any bridge at these places. One is inclined to attach some importance to this, as Hardyng is usually referred to as a spy; and, as the river at each of these places is fairly wide, his description would be likely to contain a reference of some kind, if such a structure was there.

III. The Bridges in Early Contemporary Documents.

When we turn to contemporary documents we find ourselves on much surer ground. The Exchequer Rolls, the Lord High Treasurer's Accounts, the Register of the Great Seal, and similar documents, tell us that bridges existed at Perth, Stirling, and Roxburgh before 1400, but these are the only ones of which we have a reliable and continuous history. For though a number of others are mentioned in early Charters, they are not named in later history, and do not reappear till long afterwards, although incidents occurred in the interval at which their existence would almost be certain to be referred to.

It would seem as if in the reigns of Alexander II. and III. there had been considerable progress made, and a number of wooden bridges had been erected all over the country; but during the long struggle of the Scottish Wars of Independence, in the chaotic state of the country, these were left to their fate, and by the end of the fourteenth century they had almost all disappeared.

The Exchequer Rolls are the most satisfactory authority to refer to, for there we find a number of payments towards bridges, and it is rather noticeable that the wording of the payment frequently varies. At one time it is "*Ad Fabricam*," at another "*Pro Construccionibus*," while the permanent entries are "*Ad Sustentacionem.*" On examining these carefully, one is inclined to think that the "*Pro Const.*" is a subscription to the construction; the "*Ad Fabricam*" a payment during the building, and "*Ad Sustent.*" a payment for upkeep. We get the

three entries in this order at Perth, "*Pro Const.*" in 1391, "*Ad Fab.*" in 1406, "*Ad Sustent.*" in 1417, *et seq.* For Stirling Bridge we have "*Ad Fab.*" in 1408 and 1415; Roxburgh Bridge, "*Ad Fab.*" 1330; Bridge of Earn, "*Ad Fab.*" 1402, 1409; Dumfries, "*Ad Fab.*" 1456 to 1460; Ayr, "*Ad Fab.*" 1488. In other cases the brig-master is chosen, as in Dumfries, 1456, and in Peebles, 1465.

But the most definite piece of information that guides us as to the period of the erection of a bridge of unknown antiquity, is the first reference to the repair of the structure, for in this we reach a definite limit of age. We know that a bridge does not last for much more than 70 to 100 years without repairs being necessary; and as we know in almost every case the date at which the chief bridges fell into disrepair, we are able to roughly guess the period in which each was erected.

The references in contemporary documents have been placed in tabular form in a rough chronological order. The second column exhibits the references prior to 1424, the others the reigns of James I., II., III., IV., and V., and the last the date when the bridge was known to be ruinous. From this table we observe that the commencement of the building of stone bridges seems to have been in the reign of James I. (1424), for from that date onwards the references to bridges begin to appear in public documents; and by 1550 practically all the chief bridges in Scotland have been mentioned in one way or other.

It is at this point that documentary evidence and current traditions begin to clash. For in this Pre-Reformation period, although tradition has handed down to us the names of the builders of about a dozen bridges, our knowledge of what work they actually did is almost entirely conjectural.

Prior to 1530 there must have been several hundred bridges in Scotland, and in those instances where the builder's name has been preserved, tradition and the plain evidence of the bridge itself do not

always tally, and the early traditions may or may not refer to the present structure.

REFERENCES TO THE CHIEF BRIDGES IN SCOTLAND IN CONTEMPORARY DOCUMENTS.

Dates in heavy type are indefinite, the authority not being precise.
Dates with a query are conjectural—1535 ?
B is the date when building operations were known to be in progress, but B 1465 ? is only the probable date of erection, on fairly good authority.
M = broken for military purposes.
F = ferry.

Name.	Before 1424.	James I. 1424–37.	James II. 1437–60.	James III. 1460–88.	James IV. 1488–1513.	James V. 1513–42.	Ruinous.
Perth	1303–8, 63–5 1391, etc.	annuity	for upkee	p paid reg	ularly.		1531
Stirling	1296–1305 1336: F1388	**1430**	1456	..	1492–1501	1525	1598
Roxburgh	1330: M1410	..	..	..	..	..	..
Berwick	1281, 90, 98	Ferry	Ferry	Ferry	B 1498	1513	1607
Earn	1329: F1330 B 1402–09	..	..	..	..	1530	1592
Glasgow	1285, **1340**	1435	..	..	1487–94	1515	1571
Dumfries	**1283**	..	B 1453–60	..	..	..	1609
Ayr	1234	..	1440	..	1488:B1491	..	1586
Don	1310	..	..	..	..	..	1587
Haddington	1282–1311 1356	..	..	..	..	..	1608
Dunkeld	1260	..	..	B 1461	B 1513	..	..
Guard	..	..	B **1440** ?	Kennedy	..	Beaton	1592
Doon	..	..	..	..	..	..	1593
Brechin	..	..	..	1469	..	..	1594
Peebles	..	..	..	B 1465–70	1494	..	1555
Bothwell	..	..	..	B **1486** ?	..	..	1616
Cramond	..	..	..	..	1488–1497	..	1567
Leith	..	..	..	B **1483**	..	..	1581
Linton	..	..	..	..	..	..	M 1549
Melrose	..	..	..	..	B **1490** ?	1520	F 1590
Inverness	..	..	..	..	B 1501	..	1613
Musselburgh	..	..	..	..	..	B **1530** ?, 47	1612
Linlithgow	..	..	..	..	..	1521	..
Dee	..	..	..	..	..	B 1518–27	1590
Irvine	..	..	..	..	..	1533	1575
Tullibody	..	..	..	..	..	..	M 1559
Teith	..	..	..	..	..	B 1535	..
North Water	..	..	..	..	..	B 1539	..

One of the most striking examples of this uncertainty is to be found at Guard Bridge near St Andrews, where, although Bower states that

it was built by Bishop Wardlaw, the old and defaced coat of arms looks more like that of Bishop Kennedy, and Bishop Beaton's arms are on another part of the bridge. A careful examination of the masonry leaves one with the impression that part of the work is similar to that of St Salvator's College at St Andrews, built by Bishop Kennedy.

But the most interesting feature about the bridge is the old parapet copestones, shaped like a handrail—a quite unusual style. It is a remarkable coincidence that the only example I can find like it is on the old Brig of Doon, near Ayr, a bridge said to have been built from funds left by Bishop Kennedy about 1460. It therefore seems more than a coincidence that Guard Bridge became ruinous in 1592, and the Brig of Doon in 1593. With such plain facts, one is inclined to hesitate about attributing the present bridge to Bishop Wardlaw, and rather say that it would appear as if the present bridge had been *preceded* by one built by Bishop Wardlaw. This illustration is given to show how difficult it is to disentangle fact from fiction, and at the same time not to unduly underrate the value of tradition.

We can also derive a considerable amount of information about the early bridges by searching the records for the first use of the word Bridgend, Brigton, Briglands, and similar words, and noting the use of ferries and fords; by doing this it is possible to narrow down very considerably the period of inquiry.

The following are the first references in the national MSS. so far as ascertained :—

1442.	Bridgend,	Dunblane.	1506.	Bridgend,	Arbuthnot.
1463.	,,	Craigie.	1507.	,,	Peebles.
1467.	Brighouse,	Logymurtho.	1511.	,,	Leith.
1470.	Bridgend,	Menteith.	1511.	,,	Glencairn.
1489.	,,	Renfrew.	1512.	,,	Doon.
1490.	,,	Kilmarnock.	1515.	,,	Kinnettles.
1493.	,,	Bargany.	1517.	,,	Ayr.
1499.	Brigburgh,	Dumfries.	1523.	,,	Kinneff.
1502.	Briglands,	Comrie.	1531.	,,	Finhaven.
1502.	Bridgend,	Perth.	1535.	,,	Cameron.
1504.	Brigton,	Ruthven.			

We observe from this that the first entry confirms the tradition that Dunblane Bridge was built before 1442; and that the name Bridgend was not common before 1480.

IV. The Comparative Chronology of Bridges.

One aspect of bridge building to which attention has not been sufficiently paid, is the comparative sizes of the arches in the different periods. In a quiet slow-moving stream it is always possible to lay down numerous piers and construct a low bridge of many small arches. But in a swift-moving river the clearer waterway of a wide span is almost a matter of necessity, if the bridge has to stand a heavy flood. Consequently we see in each period the gradual widening of the span as experience was gained; and it is remarkable how the spans were increased foot by foot as the centuries passed on.

In order to make this clearer, the plans on fig. 1 exhibit a number of bridges of which we know the date, and alongside them are placed others generally supposed to have been built about the same period.

Two important facts immediately become evident. First, the oldest bridges of more than one arch prior to 1400 seldom exceeded 30 feet span; second, that the oldest bridges had arches of almost uniform span—the arch of variable size appears to have been a later innovation.

In England we observe that the builder of London Bridge (built 1176–1209) aimed at 25-feet arches, with 4 of 30 feet near the centre, but having mismeasured, had one of 33 feet and the next 26 feet. Elvet Bridge, Durham (fig. 2), probably erected in 1228, had only 23- to 27-feet spans; Sunderland Bridge, near Durham (before 1346), had 31½-feet spans; and Rochester Bridge, 1392, 30-feet spans. In Scotland, Dumfries Bridge (fig. 3), with 27½- and 32-feet spans, has all the appearance of an ancient foundation. Guard Bridge and Cramond, with their 36- to 39-feet arches would fall in line with Peebles Bridge

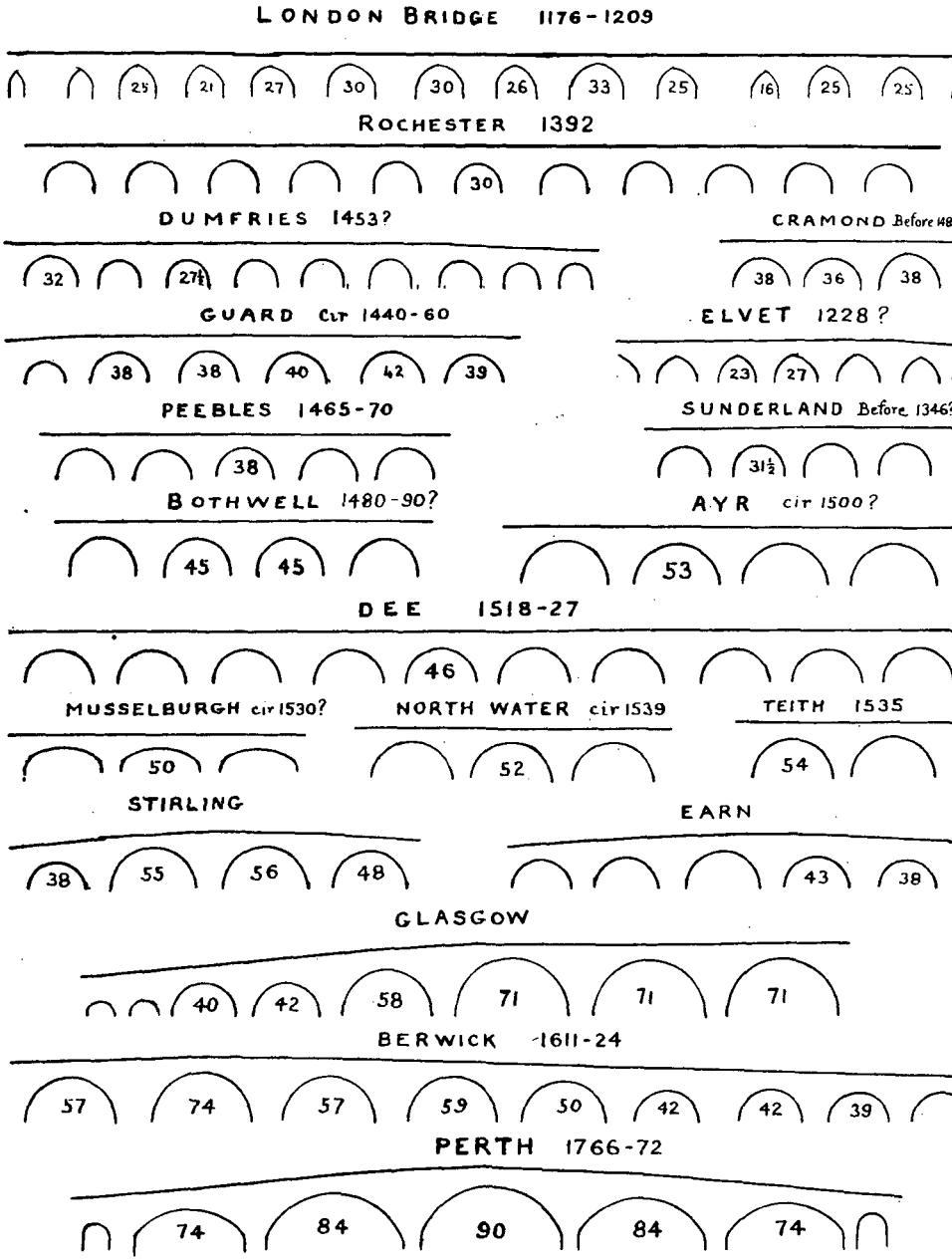

Fig. 1. Comparison of Bridges, showing the gradual increase in the size of the spans.

about 1460–70; Bothwell, with its 45-feet arches would come in about 1490, and the 50- to 55-feet spans would seem to be from 1530–1550. The bridge at Ayr with its 55-feet span is generally put back to 1488. The bridge at Haddington with its 45-feet spans would seem to be older than that at Musselburgh on account of its smaller span, and, as it fell into disrepair a few years earlier, the assumption is no doubt justified.

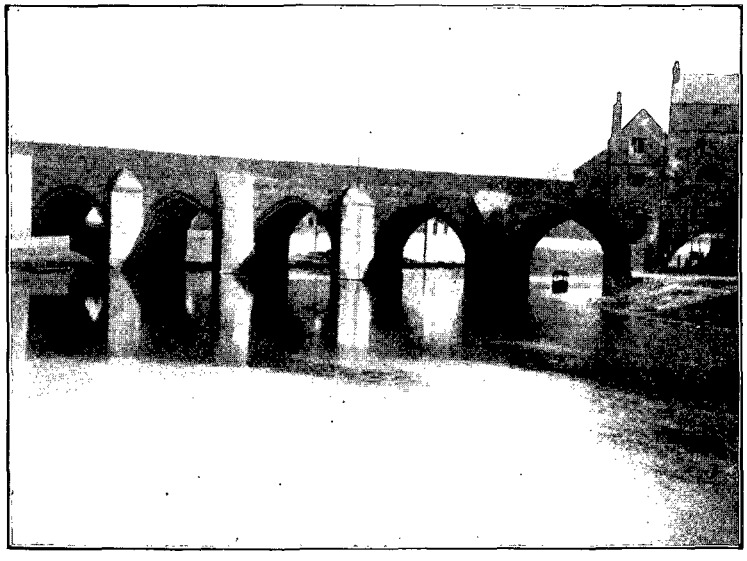

Fig. 2. Elvet Bridge, Durham.

Having dealt with the multiple arched bridges of uniform span, we have now to consider their relation to the bridges at Glasgow, Stirling, and Bridge of Earn, where this form is departed from, and the centre spans are wider than those at the sides. In doing this we have to recollect that builders prefer to have evenly balanced spans, rather than those of different weights to calculate upon and contend with. The period at which this style was introduced is not known yet, for

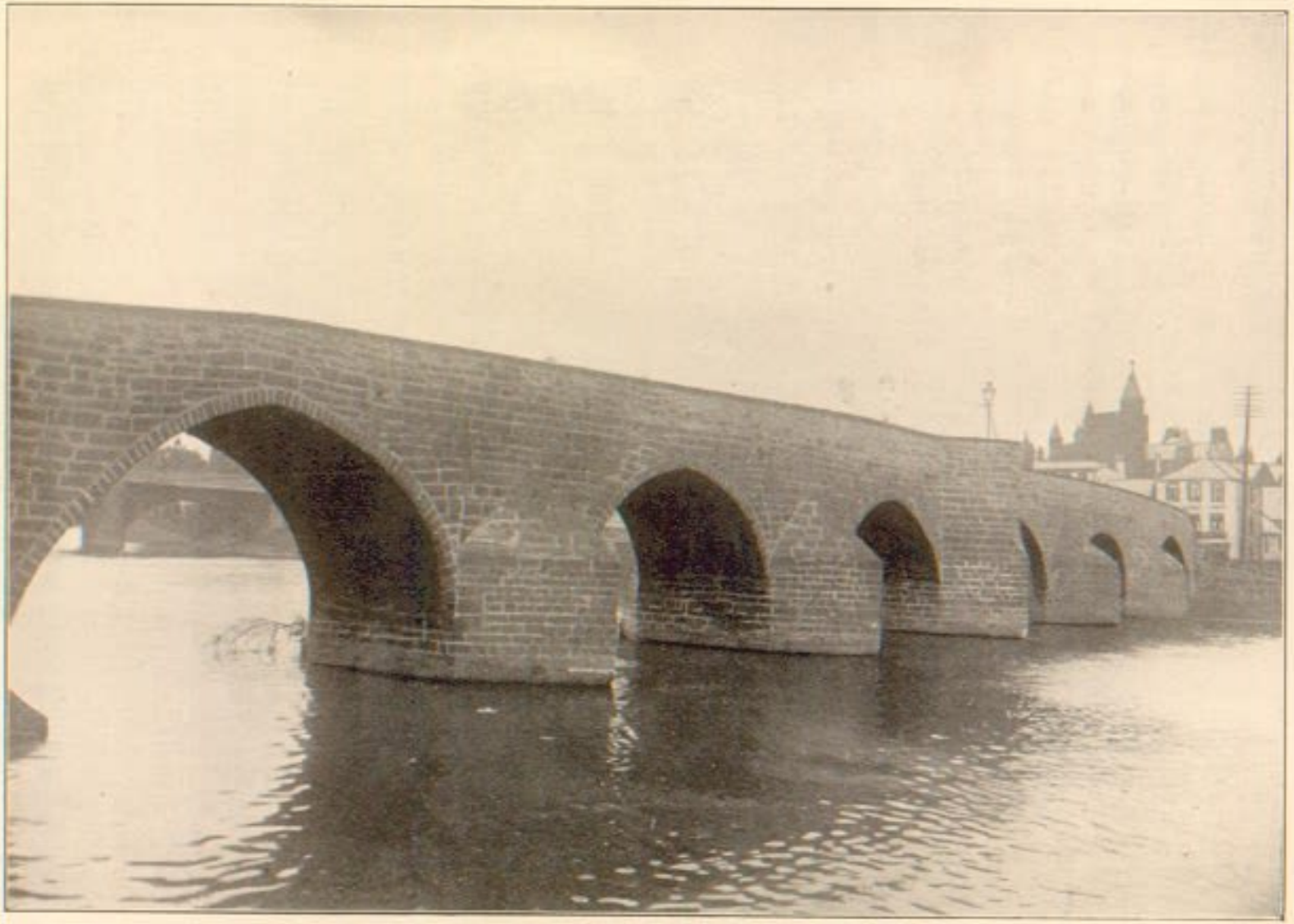

Fig. 3. Dumfries Bridge.

although Berwick Bridge, built 1611–24 (fig. 4), was followed by many others, and the style is now quite common, prior to that date there appear to have been only those three in Scotland, and in England I have so far only come across one—Catterick Bridge, in Yorkshire. These three bridges therefore stand in an entirely separate category, and one is tempted to point to Bridge of Earn and Stirling as having been constructed by the same architect, and Glasgow as being of later date. In consulting the list of dates when bridges became ruinous, here again we find two structures with some of the same characteristics coming within measurable distance, for Bridge of Earn was ruinous in 1592 and Stirling Bridge in 1598.

The early single-arch bridges when compared with one another in regard to size of span, do not give such clear results as the multiple-arch structures, for the river to be bridged is the guiding factor, and a small span may only be necessary. But when we look at those of one large arch, we have only to deal with three of above 50-feet span: Brig of Doon 70 feet, Dunblane Bridge 52½ feet, and Balgownie Bridge 70 feet. The first two are likely to have been constructed between 1420 and 1460, and the latter is usually said to have been built about 1320, but one is inclined to fix a later date for the present structure. It is therefore fairly clear that early builders, when the distance to be bridged exceeded 40 feet, were unwilling to face the large arches, and divided the structure into small spans as being more easily constructed.

One other point that we gather from the scale illustration in fig. 1 is the relative amount of work involved in each; and as there are records of how long it took to build several of them, we can form a fair approximation of the time each would take to construct. London Bridge of twenty arches took thirty-three years to build, but it was 40 feet wide and included a chapel. Berwick Bridge of fifteen arches took from 1609 to 1624, fifteen years. Bridge of Dee (fig. 5), seven arches, took from 1518 to 1527, or nine years.

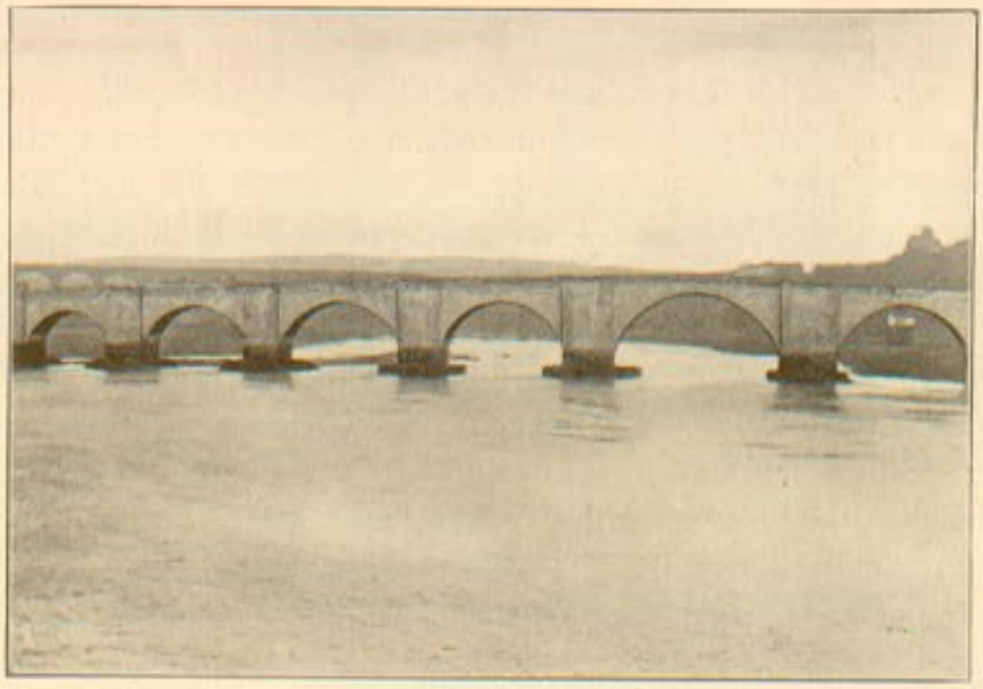

Fig. 4. Berwick Bridge, 1624.

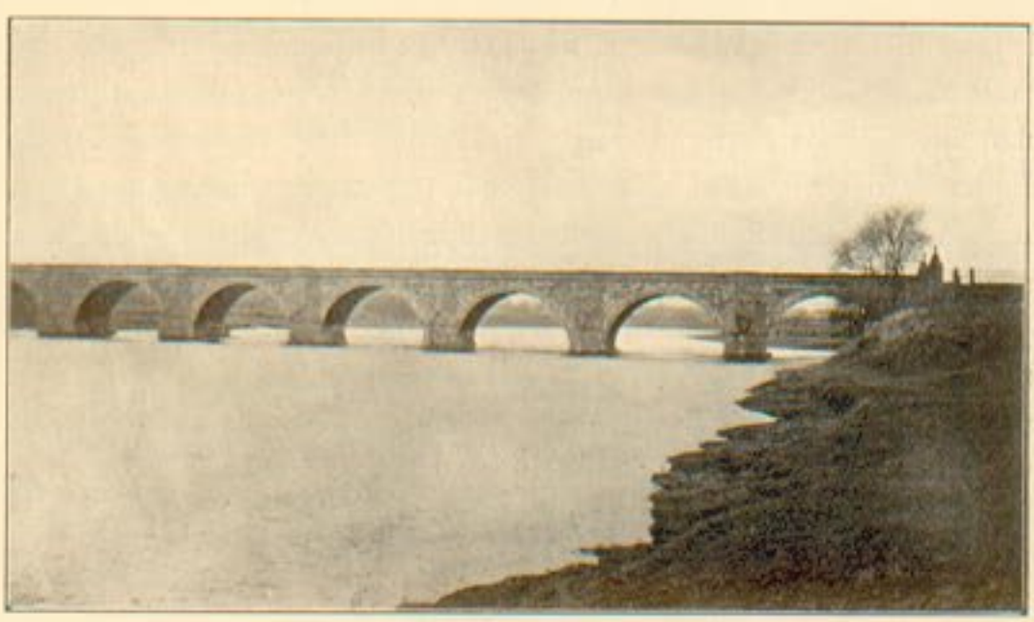

Fig. 5. Bridge of Dee, Aberdeen, 1527.

Although the cost of each structure would vary with the century, the time taken to do masonry work would not vary much, and a rough calculation brings out about one arch of 45 feet per annum as being an average. At this rate we should have to allow about twelve years for the building of the first Perth Bridge and Glasgow Bridge; eight years for Dumfries and Guard Bridges; six years for Stirling, Bridge of Earn, Ayr, and Peebles; five years for Bothwell; and three or four years for Cramond, Musselburgh, Haddington, and North Water Bridges.

Therefore when we find payments for the construction of Perth Bridge in 1391, and in 1406—fifteen years after; to Stirling Bridge in 1402, 1408, and 1415; to Bridge of Earn in 1402, 1409; to Dumfries Bridge annually from 1456 to 1465; Ayr Bridge in 1488 and 1491; Peebles from 1465–1470: these approximate so nearly to the time that these would take to construct, that one is inclined to take these payments as proof of the building of *a* bridge at that period.

It is quite impossible to say in each case that this period was actually taken, for the shifting of the course of the river, as in the known case of Bridge of Earn, is responsible for an additional arch. We know also that tradition credits Cramond Bridge (fig. 7) with being of fewer arches at one time, and one strongly suspects that in the case of Glasgow Bridge and Guard Bridge the inequality of the arches is due to some reconstruction on this account.

V. The Chief Pre-Reformation Bridges and their History.

The two bridges which come most frequently into early Scottish history are those at Stirling and Perth, and although others are mentioned from time to time, these two, spanning such important streams, may be taken as typical examples of the vicissitudes of Scottish bridges from 1300 onwards. Stirling Bridge (fig. 6) is still, and has always been, the great junction of Scottish traffic. The rivers Teith and Forth form a double barrier across the centre of Scotland,

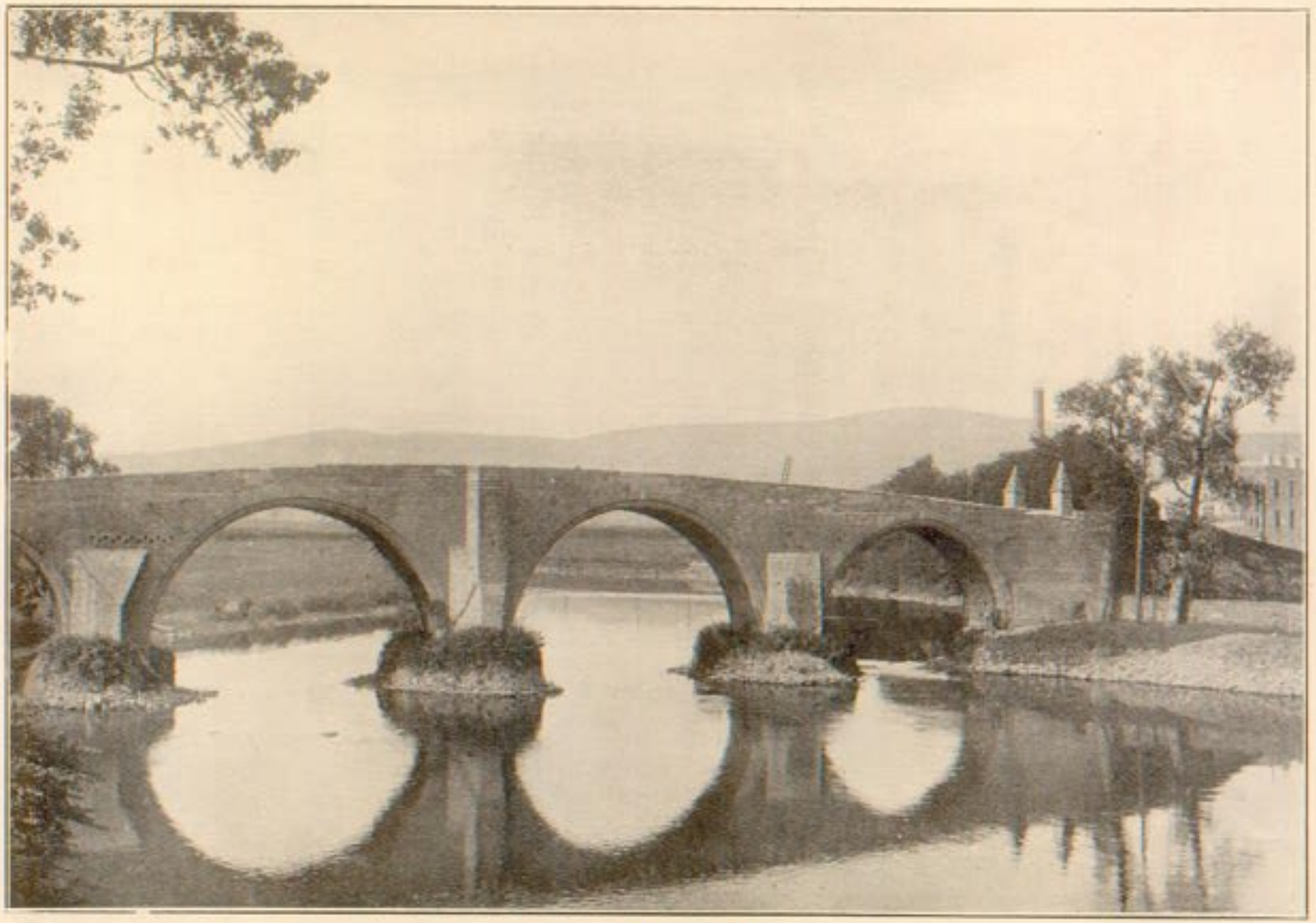

Fig. 6. Stirling Bridge.

and as the ford at Stirling is rather deep and dangerous, a bridge has always been an urgent necessity. Boece tells us (but does not tell us where he got the information) that Agricola built a bridge over the Forth to transport his army, that the Picts tried to reach it and break it down, but the Romans hastily returned and saved the bridge. He next tells us that Osbret about 860 A.D. came to Stirling Bridge to convoy his army to Fife, and adds that the Englishmen built a bridge of stone, and in the midst thereof stood an image of the Crucifixion, and under it was the inscription :—

> "I am fre marche, as passinjeris may ken,
> To Scottis to Britons and to Inglismen."

This is Bellenden's translation of Boece, and many have accepted the rendering without inquiry as to its accuracy, but Boece puts it quite differently in the Latin :—

> "Anglos a Scotis separat crux ista remotis
> Arma hic stant Bruti stant Scoti, hac sub cruce tuti."

This is fairly plain, and, however rhythmical Bellenden has made his verse, the meaning is, that although the cross separates Angles and Scots at this point, both Britons and Scots stand safe beneath it. One has only to look at an almost identical inscription round the early seal of the Burgh of Stirling with the representation of a bridge to discover from what source Boece copied his inscription, for it is quite evident from the scanning of the lines that the seal is the original. We are therefore in doubt as to whether Boece's story was suggested by the seal or whether it rests on an earlier narrative. The earliest impression of this seal now known is attached to a document dated 1296, so that we may take it that Boece assumed it to be a picture of the prehistoric bridge of 860 A.D., and thus described it as being of stone in his narrative. Whether the seal is a fairly accurate reproduction of its appearance, or merely a symbolical representation

of a bridge, is not yet known, for no pictures of ancient bridges to compare it with appear on any Scottish seals, although there are quite a number in England. The seal is therefore one of the earliest representations of a bridge we now possess.

As the battle of Stirling Bridge is one of the most prominent incidents in Scottish history, a glance at the known references to the bridge in contemporary literature brings out quite a number of points. The earliest reference to it is an English document dated 1307, which states that the constable of Stirling Castle and a great part of the garrison were slain at the bridge in 1297.

The *Scalacronica*, written about 1355, is the first historical document dealing with the affair, for the writer tells us that Wallace allowed as many of the English as he pleased to pass on to the bridge, and as soon as they had crossed over it, he caused the bridge to be broken.

Blind Harry's *Wallace*, recited about 1485, gives a very spirited account of the same incident, and adds to our information by describing the bridge as being of wood; and though certain historians, beginning with Buchanan, have thrown doubt on Blind Harry's narrative, I do not see how we can allow the very plain wording of the *Scalacronica*, corroborating Blind Harry's story, to be lightly put aside.

There has been a considerable amount of speculation as to the site of the bridge described in the narrative, and for a long time it was strongly maintained that the bridge at which this fight took place was at Kildean, a mile farther up the river. What special object was to be served by this change of locality is hard to say, for the historic references and the bridge-causeway terminating at "Causewayhead" seem to indicate that nothing was altered. To make matters clear, however, we have a fairly good guide as to the actual position of the bridge for 300 years back, in the old maps of the windings of the Forth (fig. 7)—in the Ordnance Survey of 1866, Roy's Survey of 1755, Adair's

Survey of 1680, and Pont's map about 1600. It is to be observed that in the Ordnance Map of 1866 the bridge is not at right angles to

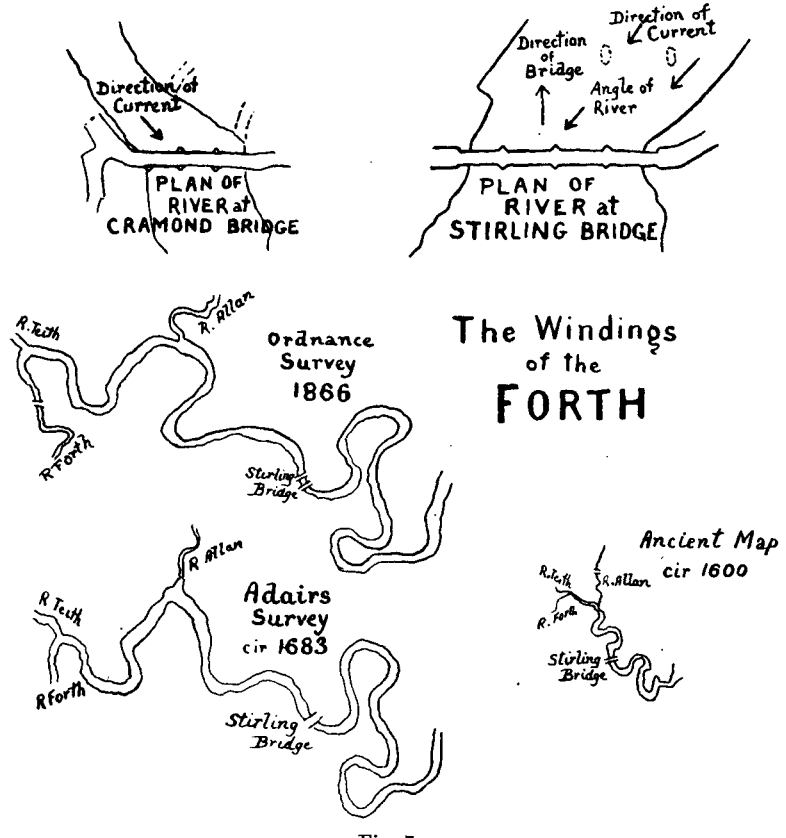

Fig. 7.

the stream, but at such an angle that the cut-water of each pier presents its side to the force of the current instead of its point, and yet the course of the river after the bridge is at right angles to the bridge. In other words, it is perfectly evident that when originally

constructed the cut-waters faced the stream, but the river has shifted its course and no longer passes straight through the arches, but obliquely. In Roy's Survey of 1755 the river is given as entering the bridge in a straight line, but this survey does not seem nearly so accurate as that of Adair, for in it we see that some change has taken place in 200 years, for the bends of the river, though substantially in the same line, do not show quite the same shapes at the curves, which have evidently been gradually eaten away by erosion of floods and spates. Its position, in relation to the Castle, is shown in fig. 8.

Of the later history of the bridge, the chief references are exhibited in the following diagram :—

THE REFERENCES TO THE BRIDGE OF STIRLING.

1296. Burgh Seal used, with picture of Bridge.
1297. Constable of castle and great part of garrison slain at the Bridge.
1299. Castle surrendered to Wallace.
1303–4. Watch at Ford for Sir Wm. "Waleys."
1304. Castle besieged by English.
1304. Garrison's boats taken.
1305. Sondale to repair Bridge destroyed and broken. Bridges made by Edward to cross Forth, left at *Berwick*.
1336. Carriage of wood to Stirling Bridge.
1361. *Boat of Bridge of Stirling.*
1375. *Ferry-boat named.*
1388. *Charter of Rents of Ferry.*
1391. *Ferry named.*
1402. Roadway of Bridge of Stirling named.
1408. £20 given to.
1415. Payment "*ad fabricam.*"
1424–37. Hardyng says, "if it bee broken, there is a ford at Drip."
1501. House for Sick Folk at Bridgend to be built.
1502. St Roke's Chapel at Bridgend named.
1525. Someone crossed the Forth not by bridge, and was dealt with for so doing.
1527. King James escapes from Falkland and crosses Stirling Bridge.

The chief deductions to be drawn from these consecutive references are: that in 1297 there was a great fight at the bridge, that in 1304 the bridge was broken down (possibly by the English to cut off the garrison from help from the north), that in 1305 it was repaired, existed in 1336, fell to pieces again, and a ferry-boat was in use till

about 1408, when another bridge was built, which also seems to have been of wood, for Harding, a spy of the English King, reporting on it, says, "if it bee broken, there is a ford at Drip." The fact that a payment is made to the fabric in 1408, and one in 1415, inclines one to believe that a solid bridge was constructed then, rendering the

Fig. 8. Stirling Bridge, showing its relation to the Castle.

ferry-boat unnecessary, for the ferry entries cease after 1392. This is likely to have been the predecessor of the present bridge, which, if we are to believe the early stories, is evidently the sixth at that spot.

To sum up the situation briefly—if we are to go by documents, the present Stirling Bridge must have been built about 1409; if we are to judge by its appearance and general probabilities, it might be more

safely placed about 1500; but if one were to judge it by comparison with other structures, it might be put down as late as 1620.

A feature that is very prominent in this bridge is the alignment of the parapets at the centre, exhibited in fig. 9. We see clearly that for some reason the springings of the arches from the different sides of the pier are not opposite one another, and as the corresponding offset on the other side is exactly similar, we are faced with the fact that the bridge was intentionally off the straight. In one or two cases this want of alignment is clearly a matter of a badly laid out plan; but in Guard Bridge the same design occurs, and it is perfectly symmetrical—showing that it is intentional. In Dumfries Bridge the offset is not so noticeable; but in Sunderland Bridge (fig. 10), near Durham, we have a very perfect example of a zigzag alignment, which leads one to the conclusion that we are in touch with one of the old superstitions of witchcraft, that bridges must not be straight.

The north end of Stirling Bridge was recently excavated in order to straighten the retaining walls, and it was then discovered that there were no less than five causeways at different levels, showing on each occasion an effort to ease the gradient on the access to the bridge. The photograph (fig. 11) exhibits fairly well the appearance of the pit looking downwards, the edges of the different causeways being visible.

Other bridges of which there are very early records are those at Glasgow, Perth, Berwick, Haddington, Ettrick, and Ayr. The history of the bridge at Perth is rather interesting. It is named in the Inchaffray Records in 1202, and in 1210 it was overturned by a flood. An annuity was left for its upkeep by Robert III. in 1405, and the Exchequer Rolls give the payments to the mason in charge for over 150 years. Fordun tells us that in 1214 Alexander met his father's body there. In 1303–4 there is an intercession made by the English army of invasion for the safe passage of the Prince and army over the bridge, against the Scots. The bridge is again named in 1391, when a payment appears in the Exchequer Rolls, apparently towards its con-

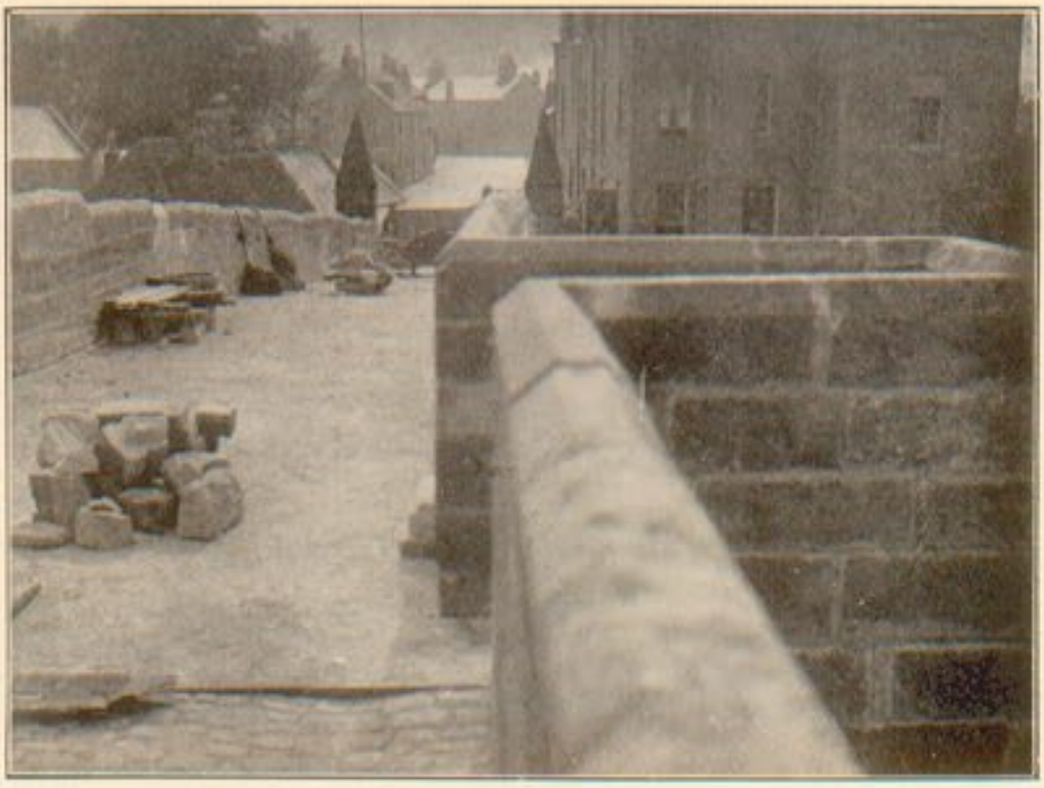

Fig. 9. Stirling Bridge.

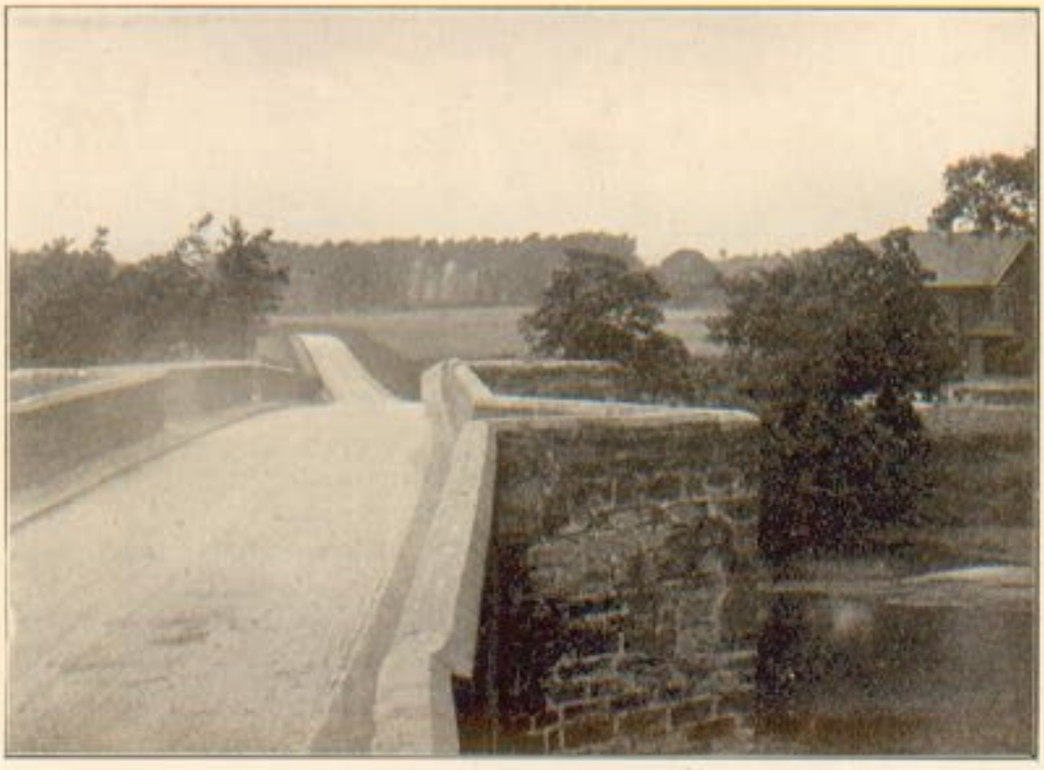

Fig. 10. Sunderland Bridge.

struction, and one is inclined to infer that the previous bridge had been partly washed away. In 1531 the bridge became ruinous, and urgent repairs were ordered. The catastrophes began in 1573, when three arches fell; those were repaired, but in 1589 five arches fell; it was rebuilt partly in 1599 and again repaired in 1604, but in 1621

Fig. 11. Pit at Stirling Bridge.

it was all washed away, except one arch, and Perth remained without a bridge until 1771.

The Bridge at Berwick had a similar history. The old records go far back, but in 1290 it was repaired, in 1297 again repaired, but destroyed that year; thereafter the ferry was let and continued till near 1500, when a bridge was built by Henry VIII., after the recapture of Berwick by England; this lasted till 1607–8, when it was

swept away; and in 1611 the present bridge was begun and completed in 1624.

Of the Bridge at Ayr it is difficult to speak, for, although the bridge seems to be mentioned in a Charter of 1236, it is very striking that Blind Harry, although he mentioned many of Wallace's doings at Ayr, never once refers to the bridge. It is again referred to in the years 1440 and 1488; but as James IV. makes a payment to the masons of the Brig of Ayr in 1491, it is generally assumed that this date represents the period of its construction, and those bridges referred to previously must have been only for short periods, as a silence of 200 years in regard to a bridge generally means its non-existence.

Glasgow Bridge is stated by Blind Harry to have been of wood, and in this case also one sees no reason to doubt the accuracy of his description. The building of the bridge is usually attributed to Bishop Rae about 1345, but it is named in 1285, 1435, 1494, 1515, and was ruinous in 1571; but the chief fact regarding the stone bridge, which existed up to 1850, was that in the years 1673–4 the sum of £5000 was spent on the bridge. Now we know that Berwick Bridge, which was 1164 feet long, cost £17,000 in 1624; and as Glasgow Bridge was only 470 feet long and 5 feet narrower, £5000 represents the value of between one-quarter and one-third of the masonry. I think, therefore, we may take it that a good part of the old Glasgow Bridge was rebuilt in 1674; probably the three 70-feet arches then replaced smaller ones of the earlier bridge.

After Bruce's death, the battle of Dupplin, which occurred in 1332, and was intended to place Baliol on the throne, brings us in contact with the Bridge of Earn (fig. 12), for in 1329—three years previously—the Exchequer Rolls exhibit an entry of £66, 13s. 4d. towards this bridge; but in the very next year, 1330, there is a payment for the upkeep of the ferry-boat of Erne; and as there are entries in 1402 and 1409 towards the fabric, one must have some doubt as to the nature of the first bridge, especially as the period was one of great

strife, and a public work of this kind would only too readily be abandoned.

The disaster at the battle of Dupplin was said to have been caused by someone staking out the ford, and the Scottish army, relying on the protection of the broad river, never dreamed of attack until the English troops swept down on them. It is therefore unlikely that

Fig. 12. Bridge of Earn.

the Bridge of Earn was then in existence. The *Scalacronica* gives a fairly minute account of the battle; but as it is silent in regard to the bridge, one feels inclined to say that if it existed it would almost certainly have been referred to there.

VI. The Roads and Bridges in History—Pre-Reformation Period.

Of roads and bridges during the reign of the Bruce dynasty we have no record, but the Regency before James I. is notable apparently

for the reconstruction of Stirling Bridge and the Bridge of Earn, and the breaking down of Roxburgh Bridge. In James II.'s reign the bridge at Dumfries appears to have been built, and in James III.'s reign the bridge over the Clyde at Bothwell and those over the Tweed at Peebles and Melrose.

Passing over the irregular records of these intervening reigns, we come to that of the chivalrous James IV., one of the strongest characters in Scottish history. For the first time in that history we have a king whose thorough knowledge of the country and of the people give him a power wielded by no other monarch since Robert Bruce. He travels up and down the country in perfect freedom, encouraging every good work. He gives money to the poor, money to the masons building the bridges. He sets men to construct his navy and to cast guns. The reader cannot fail to endorse the estimate of his character so finely worded by Sir James Balfour Paul in the introduction to the *Lord High Treasurer's Accounts*. He leaves the impression of a first-class administrator, with a thorough grip of his duties and purpose.

James IV.'s travels and pilgrimages, as traceable in the *Lord High Treasurer's Accounts*, followed certain well-defined routes. He moved between Stirling, Linlithgow, Edinburgh, Falkland, Perth, and St Andrews on his regular visits; but his pilgrimages to St Duthus (Tain) invariably took him by Perth to Aberdeen, Huntly (then Strathbogie), Darnaway, Inverness, and Tain, the return journey being the same. The pilgrimage to Whithorn was usually by Glasgow and Ayr, but on several occasions the journey was by Peebles and Dumfries, and in one case by Lanark and St John's town (of Dalry); and as the entry in the *Lord High Treasurer's Accounts* is St John's Kirk, more than one writer has assumed the journey was made by Ayr, quite ignoring the existence of the little clachan of Dalry of the same name.

The ferrymen at all the ferries on the way to Tain are remembered by gratuities of considerable generosity. The priest at the Bridgend

of Perth gets 20s., the ferryman at Montrose 9s., and at North Water (Esk) 2s., at the Spey 18s., while the ferryman of Dee at Aberdeen was also remembered.

The ferryman at Cambuskenneth, beside Stirling, is most generously treated from 1490 onwards; but for some unexplained reason there are no payments after 1511, and one wonders why the King no longer used that ferry after that date.

In the historic Perkin Warbeck expedition—known as the Raid of Ellem—the artillery are taken to Haddington, then over the Lammermoors—evidently by no road—to Cranshaws, Ellem, and on to the Tweed, apparently at Norham, and we have at this point the rather curious entry: "To the cobille men of Tweed that helpit the artillery over the water, 18s.; to the men that brought the close cart furth of the water when she stood in the water all night, 5s." It is not known whether it was on this occasion that James IV. narrowly escaped drowning, but tradition has it that the Kirk of Steill, erected near Ladykirk subsequently by the King, was in redemption of a vow made at the ford when he was in great peril; and this entry reads as if a covered cart had had to be abandoned in the middle of the river—a circumstance pointing to a position of considerable peril.

In 1491 the King gives 10s. to the masons of the Bridge of Ayr, in 1496 14s. to the Brig of Kilmahog, in 1501 28s. to the Brig work of Inverness, in 1502 7s. to building the Bridge of Scheles, and from these entries it is fair to assume that the king was passing these structures while they were being built and handed these gifts to the builders.

We get a further glimpse of generosity to the sick people who seemed to wait at the bridges, probably unable to pay the guardian his fee. At Cramond Brig the King gave 5s. to the sick folk in 1488. In 1497 8d. to the poor wife at the Brig of Dairsie, 2s. to the sick folk at Glasgow Bridge; and at Stirling Bridge in 1501 he gave instructions that a house was to be built specially for the sick people at the end of the bridge. In the next year we find St Roche or St Roques Chapel mentioned for

the first time as at the south end of the bridge, and it is probable that the two buildings were the same, for after this payments were made by James IV. to the Priest of St Roques Chapel, but after Flodden the payments cease.

One passing reference requires to be made to the route taken by the Scottish army to Flodden. It is remarkable that only one casual statement exists showing the route which the guns followed. At Dalkeith one of the guns appears to have got out of control, for there is an entry in the *Lord High Treasurer's Accounts* of an ox having been purchased there to replace one that had been run over and killed. This tells us that the Soutra route must have been used, and we hear of it so often in history, that one is inclined to treat it as one of the very earliest of the well-marked highways in Scotland, for we never read of a guide being used on this route.

This last phase of James IV.'s life brings us to the battle of Flodden, and the relation of Twizell Bridge (fig. 13) to that sad story. That the present structure is the one that did duty then is hardly likely, for it is said to have been erected about the end of the sixteenth century by one of the Selbie family, but the fact remains that historians are agreed that the English divided their troops, and sent one detachment by Twizell Bridge. Popular traditions of the Border and some historians blame James IV. for carelessly leaving the bridge unguarded, and thus paving the way for the subsequent catastrophe; but Pitscottie specifically states that the master-gunner fell on his knees beseeching the King to allow him to shoot, for he promised faithfully to cut Twizell Bridge when the half of the English troops were over, but the King only replied, "I shall hang thee if thou shoot a shot this day." We of the twentieth century can hardly understand the rules of chivalry that pervaded Europe at that period, but it would be quite in consonance with the bravery and high character of the King that he was treating the approaching fight in the spirit of a tournament, in which man was to fight with man, and personal

prowess and valour to be the test of victory. So when he saw the soldiers crossing Twizell Bridge he scorned to take the slightest advantage of an opponent. He would have viewed such an act as one would view the laming of an opponent's horse on entering the lists in a tournament—as a means of disabling an adversary, and so

Fig. 13. Twizell Bridge.

the tactics of battle gave place to those of a tournament, with results disastrous to Scotland.

The death of James IV. at Flodden and the minority of James V. left Scotland in a state of chaos, for the best of the nobles were slain at Flodden, and the new men who struggled for mastery seemed to think of nothing but their own personal advancement. The result was that bridge-building seems to have ceased throughout Scotland,

and only the Bridge of Dee, the preparations for which were made by Bishop Elphinston in James IV.'s reign, was carried through by Gavin Dunbar from 1518 to 1527.

But in this period we get a wider knowledge of tracks, by the numerous entries of journeys in the Treasurer's Accounts and Exchequer Rolls, and also by the appearance of the words Brigend, Briglands, Brighous, Brigton, and Brigholme in the Charters, which had been conspicuous by their absence before 1500, showing that much had been done in this direction during the preceding reign.

The entries relating to the movements on the roads were almost wholly connected with those of the artillery. Thus in 1515 we have the artillery lying at the Brig of Glasgow, in 1517 they are drawn to Soutra, in 1523 Lord Yester is ordered to see that all "the passages" for the guns are mended, evidently preparing the fords of the small streams for the coming of the artillery.

In connection with the youthful King's escape from Falkland Palace in 1527—where he was a virtual prisoner of the Douglases—and his 34-mile night-ride to Stirling, we have no record of the route; the only clear point is Pitscottie's statement that he got to Stirling Bridge by the break of day and "gart steik it behind him," but whether this refers to the gate of the castle or of the bridge there is some doubt, for two years after—in 1529—a keeper is appointed for the bridge gate, but it is only for eight days.

A very complete account of a punitive expedition that was to proceed to Langholm in 1547 gives an excellent illustration of journeying in these days. The expedition left Edinburgh on 7th July with three heavy cannon, and reached Darnick, near Melrose, on 12th July. The journey was then continued among the hills about Ashkirk, and Whitefield seemed to be reached on the 14th. After proceeding to Langholm, Darnick was reached on the return journey about 22nd July. For the carriage of these guns, at one time twenty-nine oxen were in use. No regular road seems to have been followed,

and Selkirk and Hawick were avoided, but the impression left is that the return journey was by Darnick and Lauder to Edinburgh.

Only two months after this came that devastating army known as the "Somerset Expedition," sent by Henry VIII. The diarist of the expedition tells us that they had great difficulty in finding a way

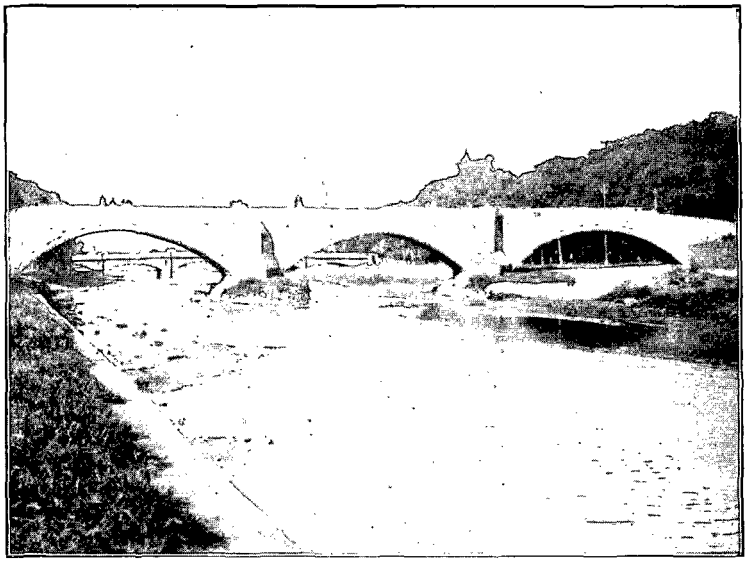

Fig. 14. Musselburgh Bridge.

to get across the Pease Burn at Cockburnspath, which shows that no road existed from Berwick to Dunbar; and that they passed a stone bridge at East Linton, a small one at Longniddry, and at Musselburgh there was a stone bridge well warded with ordnance. This expedition apparently returned to England by Lauder and Kelso, after having committed appalling havoc, although they do not seem to have touched the bridges. For Linton Bridge was intact in 1549,

and broken down by Lord Cassilis' lieutenant's orders in September that year; and Musselburgh Bridge (fig. 14), which must have been erected shortly before, is apparently the one then referred to.

As one could go on indefinitely describing these small details, I do not propose to carry the references beyond this period; but those that are made seem to indicate that, in a land without walled fences or other artificial obstacle, travellers merely passed by the most convenient way; and no proper main or trunk road existed which the traffic was bound to follow, except in the neighbourhood of villages and towns, where some kind of a highway or causeway existed. The road from Edinburgh by Musselburgh, Seton House, to East Linton and Dunbar seems to have been well marked, as well as the road branching off to Haddington; the road to Soutra and Lauder, and the road to Peebles. That to Linlithgow seems to have been either by Cramond Bridge (possibly used by Queen Mary[1] on meeting Bothwell), or by Ratho and New Bridge; while the ferry road by Cramond Bridge seems to have been well used. As to their condition no one can say anything, for the early travellers before 1550 make no remarks about roads. But one must imagine that the Scottish roads must then have resembled those in many parts of the East now, where on a stony hillside the larger stones pushed off the surface to one side create a "road," and this type of highway no doubt bears a close resemblance to those of the period under review.

[1] There is considerable doubt which bridge she crossed; some accounts say Almond Bridge, some Cramond Bridge, but the *Diurnal of Occurents* (contemporary) say it was at Brigs (near Boathouse), between Kirkliston and Edinburgh.