Dee, which falls into the Solway Firth about six miles south of Kirkcudbright, and is navigable for small vessels two miles above that town ; the Nith, which rises in the north of Dumfries-shire, and falls into the Solway Firth more than seven miles below Dumfries, being navigable to within two miles of that place ; and the Annan, which rises on the south side of Hartfell, near Moffat, and falls into the same estuary at the town of Annan. The last is not navigable be­yond this burgh. The rivers which flow in a northerly or north-easterly direction are the Ness, which flows from Loch Ness, and, after a short course, falls into the Moray Firth near Inverness ; the Findhorn, which, rising in the Monagh Lea mountains, falls into the same estuary at Findhorn, after a winding course of upwards of 50 miles; and the Spey, the most rapid of the Scottish rivers, which flows from Loch Spey to­wards the west of Inverness-shire, and, after receiving in­numerable tributaries, and traversing the best wooded por­tion of the Highlands, falls into the Moray Firth. The course of the Spey is nearly 100 miles ; it drains above 1300 square miles of country, but is not navigable. With the ex­ception of the Ayr, which is likewise not navigable, and falls into the sea at the town of the same name, the only river on the west coast worth mentioning, is the Clyde, (the *Glotta* of Tacitus), which, in a manufacturing and commercial point of view, is the most important stream in Scotland. It rises on the west of the Moffat mountains, and, after a cir­cuitous course of nearly eighty miles, falls into the Firth of Clyde below Dunbarton. It receives various tributaries, and is navigable to Glasgow, passing in its course the principal manufacturing and commercial towns in Scotland; Glasgow, Hamilton, Lanark, Paisley, Port-Glasgow, and Greenock. The navigation of the Clyde was formerly much obstructed ; but under the management of a Parliamentary board, called the River Trust, these obstructions have been nearly remov­ed, and the channel rendered so deep and straight that ves­sels of 400 tons can now resort to the Broomielaw at Glas­gow. The falls of Clyde, which are about 30 miles south-east of Glasgow, are very striking and celebrated. The first con­siderable fall is that of Bonnington, its height, including that of a little one immediately above it, being about thirty feet. The second is Corra Linn, where the water dashes from one shelving rock to another, its perpendicular height being about seventy feet. Dundaff fall is only ten feet in height ; whilst that of Stonebyres, which includes three distinct falls, is not less than seventy-six feet.@@1 All the other rivers are on the east coast, namely, the Tweed, the Forth, the Tay, the North and South Esk, the Dee, and the Don. The Tweed rises near the sources of the Annan and Clyde, and run­ning past Peebles through a beautiful pastoral country, falls into the German ocean at Berwick-upon-Tweed, after a wind­ing course of about a hundred miles. The descent from its source to its embouchure is about 1500 feet ; and it is navi­gable only to Berwick. The Forth, (the *Bodotria* of Taci­tus), rises on the east of Ben Lomond, and receiving the wa­ters of the Teith and the Allan, it becomes a considerable stream at Stirling, to which the tide flows, and to which it is navigable for vessels of about seventy tons. From Stirling to Alloa is only six miles by land, but the stream of the Forth is so tortuous that it is no less than sixteen by water. The river may here be said to terminate in the Firth, which ex­tends to the German ocean, a distance of forty miles. Its width is various. At Queensferry, eight miles west of Ed­inburgh, it is two miles ; at Leith it is six ; and thence it gradually expands till it is lost in the open sea. It is navi­gable for vessels of 300 tons as far as Alloa. The only low water pier of which it can boast is that of Granton, about a mile and a half west of Leith. The Tay rises to the north of Loch Lomond, and expanding into the romantic

sheet of water called Loch Tay, it flows in a circuitous route past Dunkeld and Perth, and falls into the Firth of Tay at the confluence of its waters with the Earn, about twenty miles from the mouth of the estuary. It is navi­gable to Dundee for vessels of 500 tons burthen, and to Perth for those of 100 tons. It receives many tributaries, of which the Earn, just mentioned, is the most important. The Tay is the largest of the Scottish, and, in respect to the volume of water it conveys to the sea, even of the British rivers. The North and South Esk have their source in the Grampians, and fall into the sea at Montrose, within three miles of each other. The South Esk is navigable to Mon­trose, about a mile and a half from its mouth. The North Esk is not navigable. The basin of Montrose, through which the South Esk flows, and which bounds the town on the west, comprehends about 2000 acres of land; it is covered by wa­ter at full sea, and exhibits nothing but bare sand at ebb tide. This expanse, it has been calculated, might be reclaimed at a gross cost of L.11,938.@@2 The Dee and the Don have also their rise in the Grampians, and fall into the sea, the former at New Aberdeen, and the latter at Old Aberdeen. The Dee is navigable for about a mile from its mouth ; the Don is not navigable.

The Scottish rivers, as stated at the beginning of this head, are of such a character, that there is no room for reclaiming waste land from their channels. This is prevented by the ra­pidity of their streams and by their rugged course. But se­veral attempts have been made to reclaim lands from innundation on the shores of the Firths of Forth and Tay. Without entering into particulars the following results may be given:@@3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Forth. | Acres. | Cost. | Rent. | Value at 30 years' purchase |
| Formerly reclaimed | 40 | £ 2,000 £ 160 | | £ 4,800 |
| Recently reclaimed | 366 | 18,063 | 1464 | 43,920 |
| Tay. |  |  |  |  |
| Formerly reclaimed | 105 | 3,050 | 600 | 18,000 |
| Recently reclaimed | 142 | 5,730 | 920 | 27,600 |
| Totals | 653 | £30,843 £3144 | | £94,320 |

In addition to this, it has been stated that the extent of land now in process of being reclaimed, on different estates on the shores of the Tay, may be computed at 1140 acres, at a gross cost of L.50 per acre. The following extract, on the sub­ject of embankments, from a work just published,@@4 contains minute and interesting information ; “ About 68 Scots acres of land have been here, (the parish of St. Madoes,) at different times reclaimed from the Tay by embankments. In 1826, in consequence of an arrangement between Sir John Richardson, the proprietor, and Mr. **R.**W. Rannie, tenant, Pitfour Mains, by which the latter agreed to raise an embankment at his own expense, and after being allowed to take the first crop free, to pay L.4, 10s. annually, per Scots acre, for the re­claimed land, during a lease of nineteen years ; operations were commenced, which resulted in the complete reclama­tion of 50 acres during the autumn of that year. The whole expense of embankments, sluices, levelling, water cuts, and trenching amounted to L.1530. So productive, however, did the new soil turn out, that Mr. Rannie has been amply rewarded for his enterprise. According to his own account, he has had, before liming and manuring, on some parts of a field, about 60 bolls of potatoes per acre, the average pro­duce being from 40 to 50 bolls. After liming and manuring, he has had, on some parts of a field, 70 bolls per acre, the average being from 50 to 60 bolls, of 32 stones Dutch to

@@@1 Naiamith’s Survey of Clydesdale, p. 19, &c.

@@@, Quarterly Journal of Agriculture, March 1838.

@@@’ ibid. for December 1837.

@@@4 New Statistical Account of Scotland, part xxiii. p. 631.