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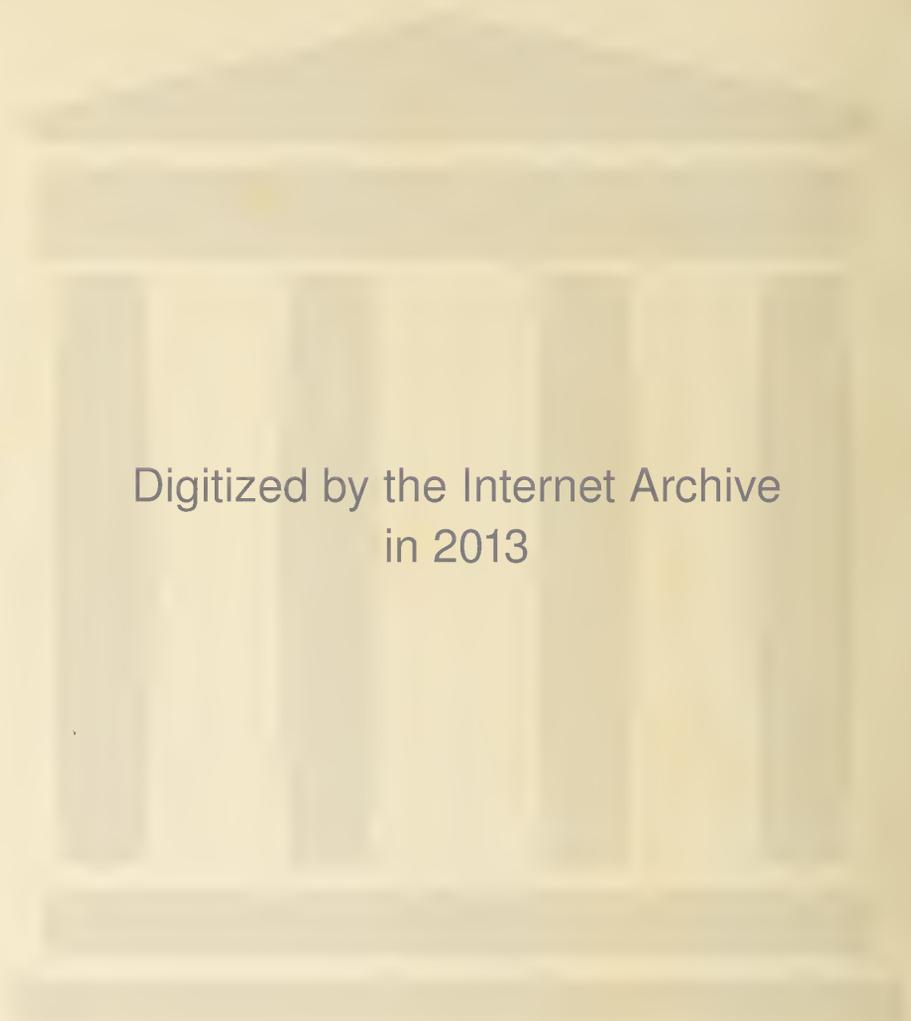
THE RIVER CLYDE AND THE
HARBOUR OF GLASGOW.

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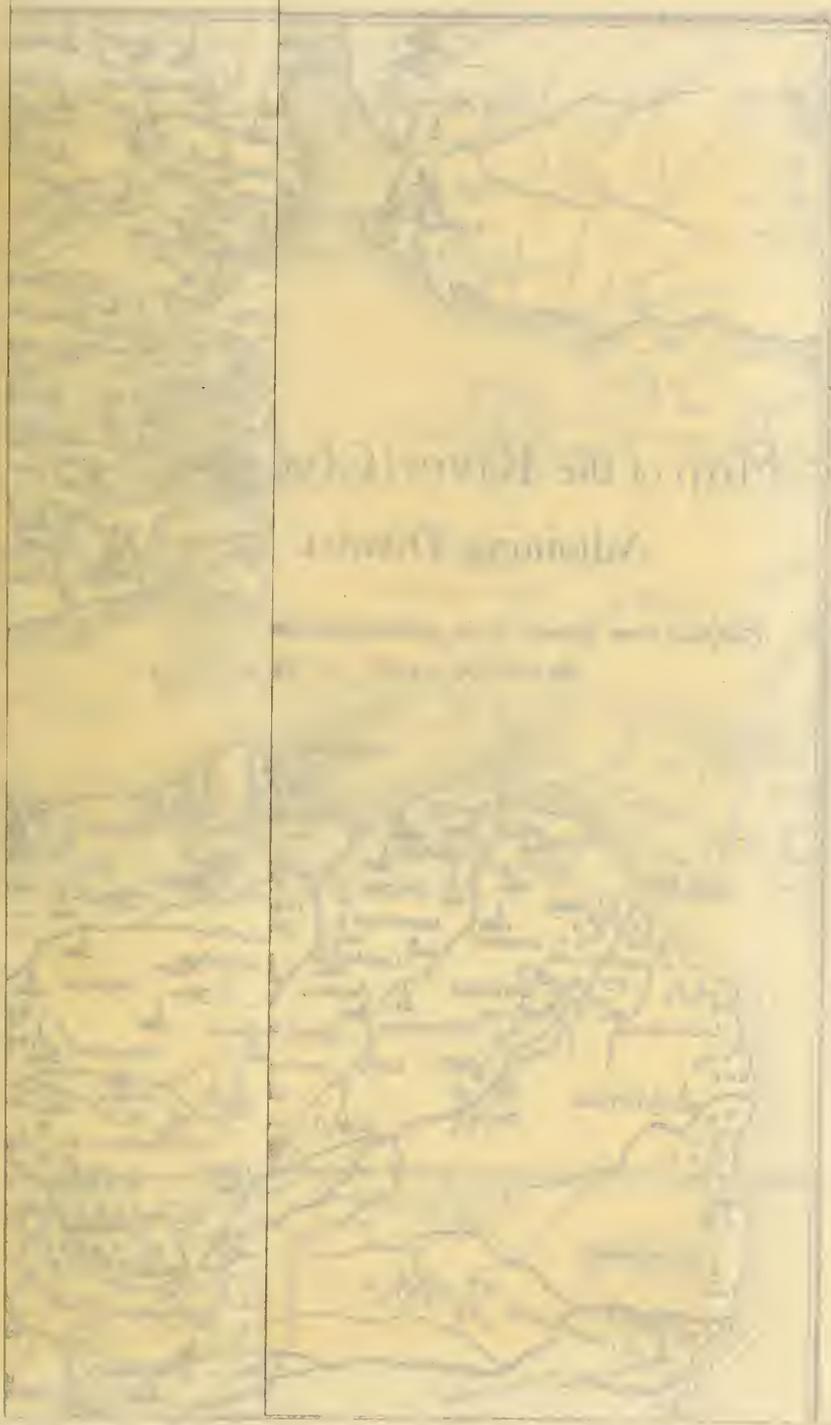
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THE
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Map of the River Clyde and
Adjoining District.

Compiled from Blaeu's Atlas, published at Amsterdam,
in 1662, pp. 93-96. Clock face.

Glotta
fluvius

The River of Clyde

PART
OF BARONIE
OF GLASGOW
OF RUGLAN
CLYDESDALE

THE
RIVER CLYDE
AND
THE HARBOUR OF GLASGOW.

BY

SIR JAMES D. MARWICK, LL.D., F.R.S.E.,
TOWN-CLERK OF GLASGOW.



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NOTE.

To illustrate the following paper, the two accompanying maps are given—one to show approximately the condition of the Clyde and the adjoining territory on either side of the river as it existed in 1662, and the other to show it as it exists at present.

The former has been compiled from the edition of the "Atlas of Scotland and Ireland," published by John Blaeu at Amsterdam in 1662,—the district on the south of the Clyde being taken from the map of "The Baronie of Renfrow," and the district on the north of the river from that of "The Shyre of Dun-Britton." The surveys for both of these maps were made by Timothy Pont, of whom Dr. John Hill Burton speaks in "The Scot Abroad" [New Edition, pp. 268-9]. As might be expected of the joint production of Scottish surveyors and Dutch artists and compositors, the atlas is not free from inaccuracies in minute details, and especially in place names. In the present compilation, however, the original has been closely followed, no alteration having been made even as regards obvious typographical errors, such as "Stabross" for "Stobercross," and "Demfield" for "Deinfield." It will also be observed that towards the west of the map the positions of some of the places on one side of the river do not correspond with the actual position of places on the other side.

The map of the Clyde in its existing condition has been prepared by Mr. Deas, the Engineer of the Clyde Trust, and shows with great clearness the immense improvements which have been effected on the river by the operations, at first of the Town Council of Glasgow, and subsequently of the Clyde Trustees.

These two maps will, it is hoped, add to the interest of the paper, and illustrate—if, indeed, illustration be necessary—how much not only the City of Glasgow, but the whole of the Clyde district, owe to the far-seeing energy of those who have made the river a great commercial highway.

GLASGOW, 30th September, 1898.

ADDENDUM.

Prefix to footnote 1, p. 7.

At the time of the Reformation, when a return of ecclesiastical revenues was obtained (1567), it was stated that part of the income of the vicar of Glasgow was derived from "a third part of the boats that arrives to the brig" [Glasgow Charters, I., p. dlx].

THE FOLLOWING PAPER REPRESENTS—

- I.—The condition of the River Clyde in early times.
- II.—The efforts made by the Town Council of the City of Glasgow, acting under the advice of eminent engineers, to improve the condition of the river by deepening and removing obstructions in the channel.
- III.—The action of the Town Council, as statutory trustees, subsequent to 1809.
- IV.—The action of the Town Council and five outsiders, as statutory trustees, subsequent to 1825.
- V.—The action of the Clyde Trustees as reconstituted in 1840.
- VI.—The action of the Clyde Trustees as reconstituted in 1858.
- VII.—The present condition of the harbour and river.
- VIII.—The defeat in 1897 of an attempt by private promoters to establish a dock at Old Kilpatrick ; and
- IX.—The defeat in 1898 of a scheme promoted by the Burgh of Renfrew to establish a dock at that burgh.

THE APPENDIX CONTAINS—

- Notes on the Charter rights of Glasgow over the Clyde, 1175-1636.
- Notes on the Clyde Lighthouses Trust.
- Notes on the Clyde Pilot Board.

THE RIVER CLYDE.

Previous to the latter half of the eighteenth century the Clyde was practically what nature had made it, and was so shallow as to admit of the passage only of boats and small vessels. It frequently also overflowed its banks and submerged the adjoining lands.¹ To improve these conditions somewhat the inhabitants of Glasgow expended labour and money from time to time in removing stones and other obstructions from the channel, and references to these efforts appear occasionally in the records of the burgh.²

¹ Floods of an ordinary kind frequently happened, but in 1712 a great flood rose 18 feet 6 inches above the ordinary tide, and did much injury to the lower parts of the town. It is described by John Duncan, who witnessed it. [Macgeorge's Old Glasgow, p. 255; Cleland's Annals, p. 31.] Another flood took place on 11th September, 1746, and an account of it is given by George Brown [Macgeorge, p. 255]. Senex (Robert Reid) records his recollections of a flood which, on 12th March, 1782, having risen 20 feet above the ordinary level of the river, submerged a large portion of the green and the city [Glasgow Past and Present, I., pp. 79, 80. It is also mentioned by Denholm, pp. 87-90, Brown, p. 51, and Cleland, p. 41]. In November, 1795, a flood destroyed the new Hutchesontown Bridge, submerged a large portion of the city and the village of Gorbals, and for nearly two days necessitated the carrying on of traffic by boats [Macgregor, pp. 378-379]. Senex describes another flood which, on 18th August, 1808, overflowed the Bridgegate and the lower parts of the city; and one in which, in 1816, the Clyde rose 17 feet above the ordinary level [Glasgow Past and Present, p. 81, Cleland, p. 46].

² Council Records, I., p. 208 *et seq.* It may be observed here that the Records of the Town Council, so far as known to exist, commence only on 19th January, 1573-4, and are wanting for the periods from 27th April, 1586, till 22nd October, 1588; from 31st July, 1590, till 5th October, 1594; from 27th October, 1601, till 13th June, 1605; and from 23th August, 1613, till 30th September, 1623.

Dr. Cleland mentions that in 1556, during the reign of Queen Mary, huts were erected near Dumbuck [twelve miles below the bridge of Glasgow], and certain of the inhabitants of Glasgow, Renfrew, and Dumbarton entered into an agreement to work on the river for six weeks at a time, *per vices*, with a view chiefly to remove the ford at Dumbuck and the most prominent *hirsts* (sandbanks). [Abridgment of the Annals of Glasgow (1817), p. 371].

It may be noticed, however, that these three burghs are said to have co-operated in 1612, in an effort to form a passage through Dumbuck ford [postea, p. 10]. Whether that was a second attempt to improve the channel of the river, or whether there was only one such attempt, and that in the early part of the 17th century, seems uncertain.

The city also suffered from the descent, after severe frost, of ice formed in the upper reaches of the river.¹ This is referred to in a deed of gift, dated 8th April, 1571, granted by King James VI., with concurrence of the Regent Lennox, to the magistrates and council.² It narrates that nothing within the city was so precious or necessary, for the weal of the inhabitants, the decoration of the city, and the common weal of the whole country, as the bridge of Glasgow, "quilk throw the oft inundationis, greit fludis and stormis that hes occurrit and descendit doun the watter in tyme of frost, and specialie this last winter, the said brig hes bene sa troublt, dung doun, and dampnageit with greit trowpis of yis [ice], that gif the samyn be not spedelie redressit and ordourit to the formar estait, with small tyme it sall grow to sic point as finalie greittar inconvenient sall follow to the disproffeit of oure haill realme." And on that narrative it empowered the provost and bailies to levy three halfpennies Scots in respect of every horse load of herring or other fish, belonging both to freemen and unfreemen, transported "fra the brig and watter of Glasgow," and of every barrel weight the like sum, "and that als oft as thai salhappin to be transportit thairfra, or brocht to the said brig and watter."

In 1597, the citizens possessed several small vessels engaged in carrying wine, probably from France, and other commodities, probably timber and wool from the Highlands. Reference is made to six, with a tonnage of 23, 21½, 50, 43, 50, and 92 tons respectively, or 279½ tons in all; and besides these, four are referred to as trading with the burgh, two belonging to Pittenweem, of 60 and 48 tons respectively, one to Aberdeen of 38 tons, and one to Dundee of 65 tons, or 211 tons in all.³ None of

¹ The records of the Clyde Trustees show that, so late as 29th December, 1815, 24 of the 25 lamps by which the Quay was then lighted were thus swept away.

² Glasgow Charters, II., p. 146, No. LXII.

³ Council Records, I., p. 187.

About the time of the Reformation, in 1560, the population of the city is said to have been about 4,500.

In 1596 the privy council, on a report by commissioners to the effect that a creek in Little Cumbræ would be a suffi-

cient harbour for ships and other vessels to and from the town of Irvine, and that not only that town but the adjacent counties would be accommodated if the harbour there were repaired and completed, empowered Irvine for five years to levy an impost on merchandise entering or leaving the ports of Ayr, Glasgow, and Dumbarton, or passing up and down "the waters, or any part to and fra the samin townis and watteris, or betwix the saidis townis, alsweill the Hielandis as Laulandis" [Privy Council Register, V., p. 305].

these vessels, however, could get up the river beyond Dumbarton or Dumbuck Ford, but it is not stated where they lay while their cargoes were being transferred to boats and carried to the city.¹ It is not known whether there was then a pier at Glasgow, but Mr. MacGregor conjectures that, before one existed, the boats lay in the centre of the stream till their cargoes had been carried on shore on the backs of porters.² Such goods were liable for custom dues according to a tariff known as the A.B.C., and the right to levy these dues was let to a tacksman for whose accommodation a "little custom house" was on 6th January, 1601, ordered to be built at the end of the bridge. The town officers were, at the same time, required to assist the tacksman in his collection of the dues.³

¹ Some indication of the nature of the shipping trade of the Clyde in the first half of the 16th century is given in the protocol book of Matthew Forsyth, Notary Public, apparently of Dumbarton. It records on 2nd February, 1525, an authorisation by seven persons to three others, one of whom, Michael Fleming, is described as "citizen of Glasgow," to appear before the regent of England to obtain restoration of gold, silver, hides, woollen cloth, and pickled salmon belonging to them, and captured on the coast of England by the English and Spanish on the ship "James," of Dumbarton, belonging to the Earl of Arran. Seventy years later, viz., on 20th March, 1595, a book in the office of the town-clerk of Dumbarton, commencing in 1595, and ending in 1657, records the entry of vessels into the Clyde between these years. The first entry, dated 20th March, 1595, records the entry by John Smollett, younger, burghess of Dumbarton, of his ship called the "Providence of Dumbarton," which had then come into the Clyde at Newark, laden with 50 tuns of high country wines, shipped at Bordeaux. In 1596, eight entries are recorded, chiefly at Inchgreen, and one at Pot of the Rig. The importations

are 325 tuns of wine, chiefly high country, shipped at Bordeaux or Rochelle. The greatest quantity imported in one ship is 50 tuns; the least 5½ tuns. It appears, however, that some of the vessels went from port to port, landing portions of their cargoes at each. In 1597 nine ships are entered, laden in most cases with salt, and one or two with iron and tar. In 1598 eleven vessels are entered, laden with wood in deals and spars, and nine with salt. The last year to which reference is made is 1657. During that year thirteen vessels were entered, with a gross tonnage of 1966 tons. Of these, ten with a tonnage of 1680 tons were laden with salt, one of 20 tons with Norwegian pine trees, and two small vessels with iron, pitch, and deals. [Irving's Dumbartonshire, p. 166.]

² History of Glasgow, p. 143. It would seem, however, that within the next eleven years a pier had been erected, for, on 14th October, 1609, an act of the town council, subsequently referred to, alludes to the "pier and port at the Broomielaw" [Postea, p. 9], and on 13th August, 1631, reference is made to "the new haven in the Clyde" [Postea, p. 12].

³ Council Records, I., pp. 221, 222.

In April, 1600, King James and the Privy Council granted a license to the town council, community, and inhabitants of the city to levy an impost of different rates on various articles for a period of nineteen years, and directed one-half of the proceeds to be applied in repairing and upholding the Cathedral, and the other half in upholding the bridge of Glasgow, removing sand from the river, and mending and bigging "calsais" for the help of the Green;¹ and being so authorised, the town council seem to have taken immediate means to improve the channel of the river. On 28th May they directed the master of works to begin "to the casting of the water" (*i.e.*, the clearing of the channel) on the following Tuesday;² on the 24th of June they ordered four men to be employed weekly in the same work on the town's charges;³ and on the 19th of July they agreed to confer with one Smyth, an Englishman, "as to the cleaning of the river and repairing the fords and sanded places."⁴

Notwithstanding that work, the filthy condition of the river two years afterwards was such that Ayr complained of it to the convention of burghs, and on 7th July, 1602, that body—which then exercised a comprehensive jurisdiction over all royal and free burghs—ordained Glasgow, Dumbarton, and Renfrew to see that the river and all parts of it near to them, and specially within their respective bounds, were kept clean and unpolluted with dead carrion, bouks (carcasses of animals), and such other matter hurtful to the fishing. They were further ordained, under a penalty of £40 scots [£3 6s. 8d. sterling], *toties quoties*, to punish the offenders, and cause the river to be cleansed. These three burghs were also required to proclaim the order within their respective bounds.⁵ Glasgow appears to have taken action in carrying this order into effect, and on 15th October, 1605, enjoined its "water sergeant" (*i.e.*, the officer appointed to attend specially to the river) not to suffer stones or ballast to be cast out of boats and barks in the river or on its sides, and to prosecute such persons as did so before the bailies.⁶ But the order of the convention does not seem to have had the desired effect, for, on 4th July, 1607, it was repeated, and each of the three burghs was required to report its diligence

¹ Privy Council Register, XIV., pp. 387, 388.

A census of the city taken at this time (1600) showed that the population then was 7,000.

² Council Records, I., p. 208.

³ *Ibid.*, p. 209.

⁴ *Ibid.*

⁵ Convention Records, II., p. 152.

⁶ Council Records, I., p. 237.

in the matter to the next convention.¹ Even this renewed order, however, does not appear to have accomplished its object, for on 5th July, 1608, these burghs were required to "cause pen an article to be given into the next Parliament for effecting the cleansing of the river and punishing the persons who defiled it."²

This action of the convention had reference simply to the cleansing of the Clyde in the interests of the fishing; but it would appear that Glasgow had made continuous efforts, so far as its then scanty resources admitted, to improve the channel of the river, for a charter granted by King Charles I. to the town in 1636 expressly refers to the expenditure which the citizens had made during many years in connection with that work. Obviously, however, its accomplishment, even to the extent then desired, was felt to be beyond the humble means of the city of that time, for, on 30th June, 1608, the town council directed its representatives to the convention to give in a supplication to that body for "help of thair brig and river."³ This supplication does not appear to have been presented to the convention at its meeting in July, 1609, probably owing to the absence of the commissioner for Glasgow, James Inglis, who was excused by the Privy Council from being present by reason of being employed "in the public affairs of the realm."⁴ But on 14th October in the same year the town council took independent action to prevent the condition of the river in and near the town from becoming worse. After narrating that the river, and specially the pier and port at the Broomielaw, was much abused by those who brought barks and boats there, and cast out ballast, at the Broomielaw, they subjected all persons, free and unfree, who did so, to a penalty of £5 Scots [8s. 4d. sterling] *toties quoties*, and to farther punishment at the sight of the magistrates and council. Such ballast was ordered to be deposited forty feet beyond the flood mark.⁵ At the following convention, on 5th July, 1610, Glasgow again craved support

¹ Convention Records, II., p. 242.

At this time the main part of the custom levied at the bridge was derived from herrings. An act of the Town Council, dated 17th September, 1608, referring to this fact, and to the loss which the tacksman of bridge custom had sustained by the "vehement frost" which had closed the river for sixteen

weeks and had prevented all "leadining" or coming of herring to the bridge during that period, authorised him to be allowed £40. [Council Records, I., p. 290.]

² Convention Records, II., p. 251.

³ Council Records, I., p. 284.

⁴ Convention Records, II., p. 273.

⁵ Council Records, I., p. 306.

“in the taking away of the sands in the water of the Clyde stopping the schippis and barkis fra in cumming to the town,” but the supplication was continued till the next convention.¹

The rights of the city previous to 1611 in regard to the free navigation of the Clyde and the prosecution of merchandise are set forth in the appendix.

On 8th April, of that year, King James, by a charter which was ratified by Parliament in the following year, confirmed to the city all the rights and privileges it had previously enjoyed, and erected it into a royal burgh. He also conferred upon it trading rights within the Clyde, from the Clochstane (about 27 miles below Glasgow) to the bridge of Glasgow, with free privilege of the river, and of trading and trafficking, as that had been previously used and possessed by it.²

Following upon this charter, the town council, on 8th May of the same year, requested the provost, who was about to proceed to Culross, to bring back with him, at the expense of the town, one Henry Crawford, “to see and consider the river how the same may be helpt.”³ What the result of this was does not appear, but the petition to the convention of burghs was again under the consideration of that body on 4th July of the same year, and was again continued.⁴ It was renewed at the convention on 9th July, 1612, and the minute bears that the assistance sought was permission to levy an impost of ten shillings Scots (sixpence sterling) upon every boat and bark coming to the town. This supplication was, however, again continued till the following convention.⁵ Whether these repeated delays had the effect of stimulating individual action on the part, not only of the city, but of Renfrew and Dumbarton, in the improvement of the river channel, does not appear, but it is said that in 1612 these three burghs combined to form a passage through a sandbank at Dumbuck Ford, and several weeks were occupied in this work.⁶ The application to the convention was, however, continued, and was considered at its meeting on 9th July,

¹ Convention Records, II., p. 306.

A census ordered by the Archbishop of Glasgow (Spottiswood) in 1610 showed that the population of the city then was 7,644.

² Great Seal Register, VII., No. 462. Glasgow Charters, II., No. XCII., p. 278. This charter was ratified by the Acts 1612, c. 18, and 1633, c. 79. Acts

of Parliament, IV., p. 484, and V., p. 83. Glasgow Charters, II., No. XCIII., p. 284.

³ Council Records, I., p. 320.

⁴ Convention Records, II., p. 329.

⁵ *Ibid.*, II., p. 356.

⁶ See third paragraph of footnote 2, p. 5.

1613, but was again postponed¹ till the following convention on 7th July, 1614, when Glasgow was authorised to apply to the king for license to levy, for a period of five years, for the repair of the bridge, four pennies of each load of herring belonging to unfreemen passing along it. This impost was declared to be over and above the impost of fourpence which the city had previously been authorised to levy.² No reference in this act is made to the application for assistance in improving the channel of the river.

At the time when the impost authorised in April, 1600, was about to expire, and its continuance was found to be necessary, the town council, apparently towards the end of 1617, petitioned the Privy Council for a prolongation of the grant. In their petition the grounds on which the original grant had been obtained were stated to be that the bridge, "which was one of the most remarkable monuments within the kingdom," had been so injured by the inundation and violence of the river as to be in great danger of entire destruction; that various parts of the river below the bridge had become so overblown with sand as to have become unnavigable for boats and small vessels by which the commodities of the city were for the most part brought to and from it; that the city was at the time unable to repair the bridge; that the town council had accordingly been allowed by the king to levy an impost for nineteen years on all goods carried across the bridge, and "lossit and laidnit" within the freedom of the city; that this tax and "verie greit sums yeirlye uplifted be voluntair contributions within the citie" had been so expended, the bridge well helped, the sands of the river removed, and calsais built along the green upon the water side; but that the expenses of maintaining these works were now so heavy that the town council were compelled to seek relief. It was accordingly granted on 5th February, 1618.³

The council records contain no farther information as to operations

¹Convention Records, II., p. 418.

²*Ibid.*, II., pp. 454, 455.

³Privy Council Register, XI., pp. 304, 305. Glasgow Charters, part II., pp. 300-2.

On 30th January, 1621, the Privy Council passed an act for the revival and improvement of pearl fishing in the Scottish rivers, and granted commission to certain gentlemen to see that its terms

were observed in specified waters. [Privy Council Register, XII., pp. 408-410.] This was followed by an act on 27th March, 1621 [*Ibid.*, p. 458], and by another on 26th February, 1622, which nominated seven new commissioners to superintend pearl fishing in these waters. Sir George Elphinstoun of Blythswood was appointed to preserve the water of Clyde and its branches. [*Ibid.*, pp. 660-661.]

on the Clyde till 13th August, 1631,¹ on which day the treasurer was authorised to have a warrant for £66 12s. Scots [£5 11s. sterling] disbursed by him to workmen who wrought at the new haven in the Clyde for the helping thereof; and seven days later £40 15s. 6d. Scots [£3 7s. 11d. sterling] were paid to workmen who wrought in the river on the 15th and 16th of the month, and for bread and drink given them while engaged in mending the new haven.² On 12th November in the same year a warrant was granted to the treasurer for £27 12s. Scots [£2 6s. sterling] for fifty-four creels and two barrows furnished by him at the command of the provost for "mending the water of Clyde."³ On 23rd June, 1632, the treasurer was authorised to have a warrant for £197 8s. 4d. Scots [£16 9s. sterling] disbursed by him for the "wark of the water fra the 14th day of June instant to this day at nycht;"⁴ and on 22nd September in the same year a similar warrant was ordered to be given him for £84 15s. 4d. Scots [£7 1s. 3d. sterling] disbursed by him in complete payment of the whole disbursements upon "the helping of the water this year bygane, except John Bairdis compt quhilk is not as yit given in for the creillis and swme small tymmer."⁵ On 28th June, 1633, the charter of 1611, with all the other charters and writs granted to the burgh, were ratified by Parliament in consideration, *inter alia*, of the expense which it had incurred in making the Clyde navigable.⁶ On 6th July, 1633, the treasurer's payment of £140 Scots [£11 13s. 4d. sterling] to John Baird was allowed.⁷ On 17th August the treasurer had a warrant for £296 6s. 10d.

¹ In 1630 King Charles I. determined to establish on the West of Scotland a common fishery which would be a nursery of seamen, and increase the shipping and trade in all parts of his dominions. But the royal burghs strove hard to prevent this invasion of what they conceived to be one of their privileges in respect of the national burdens they had to bear. All, however, that they could get as regarded the West of Scotland was a royal letter prohibiting fishing on the west coast between the Mulls of Galloway and Kintyre, or in any place within the same, "except natives, according to ancient custom." This exemption was granted on the ground that many of his

subjects dwelling on the bounds adjacent to the river and Firth of Clyde had been at all times, and still were, at some seasons of the year chiefly maintained by the fishings there as serving for their necessary use, so that they could hardly subsist without them. [Glasgow Charters, I., p. 324.]

² Council Records, II., p. 6.

³ *Ibid.*, II., p. 8.

⁴ *Ibid.*, II., p. 11.

⁵ *Ibid.*, II., p. 13.

⁶ 1633, c. 79. Acts of Parliament, V., pp. 287-289. Glasgow Charters, Part II., No. CVI., p. 351.

⁷ Council Records, II., p. 15.

Scots [£24 13s. 10d. sterling] disbursed by him to the master of works for mending the river;¹ and on 5th October in the same year a warrant was ordered to be granted to the treasurer for £50 13s. 4d. Scots [£4 4s. 5d. sterling] disbursed “for help of the river and uther the tounes effaires” from 28th September to the date of the order.² On 16th October, 1636, King Charles I. granted a charter under the great seal, by which, after referring, *inter alia*, to the advantages conferred on his kingdom by the foreign trade and navigation of the city, and to the great expenditure by the citizens during many years in making the Clyde navigable for ships, boats, and vessels, he confirmed all the city’s previous charters, and especially the privilege which it enjoyed of electing a water bailie to take charge of the river where the sea ebbed and flowed, and within its whole bounds between the bridge of Glasgow and the Clochstane, and to correct all wrongs and outrages committed upon it within these bounds. This charter further granted to the city the freedom of the river on either bank, from the bridge to the Clochstane, with freedom and immunity for roadsteads between these points for loading and unloading imported and exported goods. It also constituted the magistrates justices of the peace, not only within the city and its freedoms, but also within the ports of Inchgreen, Newark, and Pot of the Rig, and empowered the burgesses and inhabitants to build ports and roadsteads, bulwarks, and jetty heads, to render the river more navigable between the bridge and the Clochstane, and for the reception of ships, boats, and vessels within its bounds as far as the spring tide flowed. Within these bounds also they were authorised to take stones and sand for constructing and repairing bulwarks, ports, roadsteads, and jetty heads, and for ballasting their vessels; and to exact anchorages, shore silver, and other dues in respect of all merchandise and vessels landing, not only at the Broomielaw, but at all other places within the river, according to use and wont. This charter was confirmed by Parliament successively in 1641, 1661, and 1669.³ On 14th August, 1643, the Town Council granted a commission to two persons “to aggrie with workmen to tak the staines out of the water about the brig, and to tak away the stobs out of the water

¹ Council Records, II., p. 15.

² *Ibid.*, II., p. 18.

³ Great Seal Register, IX., No. 601.

Glasgow Charters, Part II., No. CX., p. 375.

⁴ Acts of Parliament, V., p. 473, and VII., pp. 220, 650.

on the southe syd ;”¹ and on 12th June, 1652, the treasurer was ordered to pay the water bailie £20 8s. Scots [£1 14s. sterling] “for redding of the water of the stobbis therein for the better passing of boattis.”²

The records of the town council and of the convention of burghs contain no indications that the condition of the Clyde was materially changed during the reign of King Charles I., which terminated on 30th January, 1649. It was succeeded by the Commonwealth of England, Scotland, and Ireland—1649 to 1661—of which Cromwell assumed the protectorate on 16th December, 1653, and the affairs of Scotland were conducted in their more important departments by English officers. During that time Glasgow participated in the benefits which Scotland generally enjoyed under the English administration, and, in his “Northern Memoirs,” Franck, writing in 1650, says the commerce of Glasgow was extensive.³ But more authoritative information on the subject is obtainable six years later. In conformity with their policy, the Lord Protector and Council of State, in August, 1655, despatched to Scotland Mr. Thomas Tucker, “register to the commissioners for the excise” for England, to give his assistance in settling the excise and customs there, and during his residence he acted as a commissioner for these departments of the government. In the performance of these duties he had to report, in 1656, on the condition of the towns of Scotland in which there was “any trade or commerce,” including Glasgow, Renfrew and Dumbarton and his report gives an authoritative and interesting account of the condition and trade of these towns at that time. Referring to Glasgow in complimentary terms, he states that its inhabitants—with the exception of students at the college—were all traders and dealers:—

“Some for Ireland,” he says, “with small smiddy coales, in open boates, from foure to ten tonnes, from whence they bring hoopcs, rongcs, barrell staves, meale, oates, and butter; some to France with pladding, coales and herring (of which there is a greate fishing yearly in the Westerne Sea), for which they retorne salt, paper [pepper], rosin, and prunes; some to Norway for timber; and every one with theyr neighbours the Highlanders, who come hither from the Isles and Westerne parts; in summer by the Mul of Cantyre, and in winter by the Torban to the head of the Loquh Fyn (which is a small neck of sandy land, over which they usually drawe theyr small boates into the Firth of Dumbarton), and soe passe up in the Cluyde with pladding, dry hides, goate, kid and deere skyns, which they sell, and purchase with

¹ Council Records, II., p. 60.

² *Ibid.*, II., p. 229.

³ Quoted by Dr. Macgeorge, Old Glasgow, p. 240.

theyr price such comodityes and provisions as they stande in neede of, from time to time. Here hath likewise beene some who have adventured as farre as the Barbadoes; but the losse they have sustayned by reason of theyr goinge out and cominge home late every yeare have made them discontinue goinge thither any more. The scituation of this towne in a plentiful land, and the mercantile genius of the people, are strong signes of her increase and groweth, were she not checqued and kept under by the shallowness of her river, every day more and more increaseing and filling up, soe that noe vessells of any burden can come neerer up then within foureene miles, where they must unlade, and send up theyr timber and Norway trade in rafts or floats, and all other comodityes by three or foure tonnes of goods at a time, in small cobbles or boates of three, foure, five, and none of above six tons, a boate. There is in this port a collector, a checque, and four wayters, who looke to this place, Renfrew, Arskin on the south, and Kirkepatrick on the north side of Cluyde, with Dunbarton, a small and very poore burgh at the head of the firth. The former of these are inhabited with fishermen, that make herring and trade for Ireland with open boates, and the latter gives shelter sometime to a vessel of 16 tons or thereabouts, cominge from England or Ireland with corne."

He then describes Newark as a small place of some four or five houses, exclusive of the house of the laird, with a pretty good roadstead in which all vessels rode, unloaded and sent their goods up the river to Glasgow in small boats. Greenock he characterised as such another place, with more inhabitants. All its seamen or fishermen, he said, traded for Ireland or the Isles in open boats, and there was a mole or pier at which vessels in stress of weather might ride and obtain shelter before passing up to Newark.

The shipping of Glasgow, he states, consisted of twelve vessels, of which three were of 150 tons burden, one of 140 tons, two of 100 tons, one of 50 tons, three of 30 tons, one of 15 tons, and one of 12 tons, representing in all 957 tons. Renfrew, he states, had three or four boats of five or six tons each.

The customs and excise drawn in Glasgow for the four months of June, July, August, and September amounted in all to £443 ls. 3d. Nothing seems to have been drawn in the other towns on the Clyde above referred to.

Fairly, "Culburgh," and Saltcoates he refers to as "shores only of the road with a few houses, the inhabitants fishermen, who carry fish and cattle for Ireland," and Irvine he describes as "a small burgh town lying at the mouth of a river of the same name, which hath sometime beene a pretty small port, bot at present clogged and almost choaked up with sand, which the western sea beats into it, soe as it wrestles for life to maintaine a small trade to France, Norway, and Ireland, with herring and other goods brought on horseback from Glasgowe,¹ for the purchasing timber, wine, and other comodityes to supply theyr occasions with." But though he so notices these places, and mentions that Irvine has 3 or 4 boats, the biggest not exceeding 16 tons, the only observation he makes as regards Renfrew is that it has 3 or 4 boats of 5 or 6 tons a piece.²

¹ See footnote, p. 17.

² Miscellany of the Scottish Burgh Records, pp. i., lxxviii., pp. 26, 27, p. 46.

The increase in the shipping of the city, to the extent of nearly three and a half times that in 1597, thus noticed by Tucker, indicates a considerable development of commercial enterprise under unfavourable conditions. It seems also to have suggested the necessity for the erection of a quay at which the boats that carried goods to and from the city might load and unload. Accordingly, on 24th July, 1662, the town council determined, "for many good reasons and considerations, and for the more commodious loading and landing of boats, that there should be a little quay built at the Broomielaw" as early as possible.¹ The quay thus resolved upon was in process of erection on 23rd May, 1663, when the town council appointed two persons to take charge of the building, and on 6th June the masters of families were required to send out their servants to carry sand for filling up the back of the new quay. Seven days later, viz., on 13th June, the council ordered the quay to be raised "two stones" higher than was originally proposed, and appointed the dean of guild to endeavour to get additional oak timber, either in the "Hie Kirk or bak galerie," for facing the work.²

Notwithstanding the operations on the channel of the Clyde, to which reference has been made, the shallowness of the river made it impossible for vessels, save of very small size, to get above Dumbarton—the intermediate distance being traversed by small boats.

After the Restoration in 1660, the Government of Charles II. treated Scottish trade as alien, and, under the Navigation Act, placed it on almost the same footing as the Dutch, subjecting it and the products of Scottish industry to prohibitory duties. Nevertheless, in 1667, the shipping trade of the city had apparently grown to such an extent as to make it desirable to have a register of the ships, and, on 5th October of that year, the town council ordered a book to be kept in the town-clerk's chambers, in which each ship that came into the river should be entered—the entry to be paid for by the owner.³

About this time an active spirit of trading enterprise was developed in Glasgow, and required the establishment of a harbour nearer to the city to which its shipping might be brought. But the shallowness of the Clyde in its upper reaches rendered it necessary for the town council to look for the requisite accommodation in or below Dumbarton, and they pro-

¹ MSS. Council Records.

² *Ibid.*

³ *Ibid.*

At the restoration of Charles II. in 1660 the population is said to have been 14,678, nearly double of what it was fifty years previously.

posed to its magistrates to acquire land there on which to construct harbour works.¹ The proposal was, however, declined, on the ground, it is said, that the great influx of mariners and others would raise the price of provisions to the inhabitants. So baulked, they had to look elsewhere, and in January and February, 1668, they acquired from Sir Patrick Maxwell of Newark, at the price of 12,000 merks (£666 13s. 4d. sterling), a feu of 13 acres of land opposite Dumbarton, with the harbour and station or shipping port, and a right to build a harbour into the river, and other privileges.² The feu-duty payable for that feu was 4 merks (4s. 5½d). Of this deed the city obtained a crown charter of confirmation by King Charles II., under the great seal, on 20th January, 1668, and by it the land so acquired, as far as within the sea mark, was incorporated into the "port and harbour of Glasgow." The city was, moreover, empowered to construct there a port and harbour for ships, boats, and other vessels; to build bulwarks and a tolbooth or prison; to create bailies, clerks, and other officers; to exercise exclusive baronial jurisdiction, civil and criminal; and to exact small and petty customs and anchorage of all ships, boats, and vessels, and all other duties belonging to a free port and harbour.³ This charter was

¹In some local histories it is stated that, previous to this time, the merchants of Glasgow had their shipping harbour at the bailliary of Cunningham, in Ayrshire, but that port being distant, and the land carriage expensive, the town council took steps for securing a nearer port. The Cunningham port thus alluded to appears to have been that of Irvine, distant about 25 miles from Glasgow by land. See Tucker's Report, *antea*, p. 15.

²Inventory of Glasgow Charters, &c., I., bundle 3, No. 1.

In the early part of 1619, Patrick Maxwell of Newark, instituted legal proceedings against the town council of Glasgow, setting forth that some of the citizens who traded in merchandise and shipping, unwarrantably, and to his annoyance, discharged their commodities on his lands, and committed other acts of "oppression" upon him. They were accordingly obliged to find security that the subject of complaint would not be

continued. Under these circumstances the town council applied to the privy council for relief, averring that the relations between them and Maxwell were friendly, and that he had no ground to fear oppression from them or from the citizens. In times of storm and severe weather, no doubt, some Glasgow fishing boats and small vessels sought shelter in his harbour, as all harbours and ports in the kingdom afforded similar shelter to strangers. If, however, any citizen failed in his duty, Maxwell should proceed against the defaulter, and not against the community, which had nothing to do with the matter. Parties were afterwards heard before the privy council and the proceeding complained of was suspended. [Privy Council Register, XI., pp. 522, 523]. No farther reference to this dispute occurs, and it was probably arranged amicably.

³Inventory of Glasgow Charters, &c., I., bundle 3, No. 3.

ratified by Parliament on 23rd December, 1669,¹ and forthwith the town of Port-Glasgow was erected, a harbour was constructed, and the first graving dock in Scotland was formed. The port was subsequently erected into a free port, and the adjoining land thus acquired by the city was feued out to a number of vassals who still hold of Glasgow as its superior. On 7th July, 1677, the Lords of the Treasury and Exchequer, on the application of the city, passed an act ordaining all goods and merchandise which royal burghs were then privileged to export and import, and which might afterwards be exported and imported to the Clyde, to be loaded and unloaded at Port-Glasgow, and at no other port or creek.² Some years later Sir John Shaw of Greenock, one of the tacksmen of the customs, privately obtained a decree for the removal of the custom-house from Port-Glasgow to Greenock, and the removal was effected. But Glasgow appealed against the order, and on 2nd March, 1694, obtained a decree ordaining the custom-house to be brought back and re-established in Port-Glasgow.³ The port was, however, upwards of eighteen miles from Glasgow, and the town council—being desirous to have their goods brought up to the city by water—constructed a quay at the Broomielaw, as already mentioned, and made additions to it from time to time. To this quay, accordingly, goods were brought up in lighters of such limited size as could make their way over the intermediate shoals and sandbanks.

The expenditure connected with the establishment of the harbour at Port-Glasgow, and the construction of the quay at Glasgow,⁴ must have been considerable, relatively to the then condition of the city as referred to in an application by the town council to the convention of burghs in 1688. That application—after alluding (1) to the flourishing condition of Glasgow in former years as compared with that in which it then was, occasioned by the great addition of burdens laid upon it within a few years, making its total annual burden £1,250 sterling or thereby; (2) to the

¹ 1669, c. 108, Acts of Parliament, VII., p. 647.

² Inventory of Glasgow Charters, &c., I., bundle 3, No. 6.

³ *Ibid.*, No. 9.

⁴ On 14th May, 1687, the dean of guild was authorised to have the quay at Broomielaw repaired [MS. Council Records, XII., p. 257].

In the "Chronicles of St. Mungo" (1843) it is stated that:—Soon after the Revolution in 1688, a quay was formed at the Broomielaw, at the expense of £30,000 merks Scots, or £1,666 13s. 4d. sterling [p. 308]. This expenditure was, however, not incurred till about the year 1724. See footnote 2, p. 24.

serious decay of trade during several years, and to its then inconsiderable amount, as known to the farmers of the crown customs; and (3) to the decay of its fishing industry, which constituted a universal discouragement to the inhabitants—craved the convention to appoint three or four of its members to repair to the burgh and inquire into its condition. The convention, accordingly, on 3rd July, 1688, appointed the commissioners for eight burghs or any four of them to make the necessary inquiries and to report.¹ At the following convention, held on 5th July, 1689, instructions were given to them, and to those appointed to make similar inquiries in other burghs, as to the number and quorum of the commissioners by whom the inquiries were to be made.² The impoverished condition of many of the burghs at this time, and the frequent representations made by them as to their inability to pay their respective contributions to the tax which the convention imposed, rendered a general inquiry necessary; but the difficulties of the times, occasioned by war and other troubles, hindered several of the burghs from reporting their “particular condition.”³ On the 14th of July, 1690, however, a new remit was made to a committee to frame rules and instructions for the conduct of the inquiry ordered; to appoint visitors to conduct it, and to report the result upon oath to the next convention.⁴ But this order as to making and reporting the result of the inquiry was not complied with, for, on 9th July, 1691, the convention simply confirmed the action of its committee, and revised and amended the rules and instructions which it had prepared.⁵ On 14th July, 1692, however, the reports of the visitors were produced to the convention, and ordered to be forthcoming for the use of the royal burghs whensoever they had occasion to refer to them.⁶ These reports are still

¹ Convention Records, 1677-1711, pp. 77, 78.

The misgovernment under Charles II. and James VII.,—as evidenced in interference with the freedom of municipal elections, the discontent excited by the re-establishment of episcopacy, the high-handed measures by which non-conformity was punished, the imposition of penalties on the city and the regality for the failure of the authorities to suppress conventicles, the introduction into Glasgow of a “Highland Host” to crush

presbyterian meetings, and the injury to the town by a great fire in 1677,—all seem to have thrown back the growth of the city for a time, and explain the fact that at the Revolution in 1688 the population numbered only 11,948, a decrease in twenty-eight years of 2,730.

² Convention Records, 1677-1711, p. 92.

³ *Ibid.*, p. 114.

⁴ *Ibid.*, p. 119.

⁵ *Ibid.*, pp. 129-131.

⁶ *Ibid.*, pp. 161, 162.

preserved, and furnish authoritative information as to the condition of the several royal and free burghs at that time.

The reports as to Irvine, Dumbarton, Renfrew, and Glasgow are instructive.

By the instructions given to the visitors they were required (article 6) to take trial in all burghs of their trade, both foreign and inland, and particularly of the wines and of the vent [sale] and consumption of malt for five years backward ; (7) to take exact account of what ships, barks, boats, and ferry boats they have belonging to thame, the names of these ships, their burden, the value of each, and how employed and by whom ; and (8) to take an account of what ships they were owners or part owners, both within and without their own burghs.¹ In reply to these articles the visitors reported:—

AS REGARDED IRVINE.

(6) That during the five preceding years all the foreign trade which the burgh had was—one ship of 70 tons burden, and another small ship, both from France, laden with salt and brandies ; another small vessel from Norway, of about 30 tons, laden with tar and deals. That it had exported about 30 packs of wool for two years, each pack weighing about 12 stones ; that it had about 7 or 8 small barks, each of about 20 tons burden, laden with victual, in which “some strangers were concerned” ; a fourth part of a small vessel from Norway, whose share of the loading was 600 deals ; and another ship of 70 tons, from France, with salt and a small quantity of brandy ; that the inland trade of the burgh was very inconsiderable, and consisted of goods brought from Glasgow and other royal burghs and sold in retail ; that about a tun of wine, sack, and brandy had been sold annually during the preceding five years ; that about 40 bolls of malt (Linlithgow measure), were consumed weekly, and that a small quantity (about 12 daces) was imported by strangers. (7) That it had eight small ships, barks, and boats, whose burden, value, and employment were stated to the commissioners, but that one of the eight had been lost shortly before.²

AS REGARDED DUMBARTON.

(6) That the burgh had no foreign trade, and that all its inland trade consisted of some small goods retailed from Glasgow and other royal burghs, and of inconsiderable value ; that it had five years bygone sold about a hogshead and a half of French wine, and a hogshead of brandy ; and that it sold and consumed weekly about four bolls of malt or thereby. (7) That it had no ships, barks, or boats belonging to it, except (a) a small bark of 24 tons burden, valued at about 1,000 merks (£55 11s. 1d. sterling), and employed by Glasgow merchants and other strangers ; and (b) three small herring boats, of the value, one with another, of 100 merks (£5 11s. 1d. sterling). And (8) that the inhabitants were neither owners nor partners in any ships, barks, or boats belonging either to royal burghs or burghs of regality or barony.³

¹ Convention Records, 1677-1711, p. 564.

² *Ibid.*, 1679-1711, p. 613.

³ Convention Records, 1677-1711, p. 627.

AS REGARDED RENFREW.

(6) That it had no foreign trade, no persons in the burgh having any stock (capital); that its inland trade was not "worth the naming," as there was not one merchant's shop within the burgh; that all that the inhabitants had, consisted of some green herring brought from the lochs to Glasgow for serving the country; that no wine or sack was sold or retailed within the burgh; that what brandy was sold was brought from Glasgow in gallons and half-gallons; and that the consumption of malt in the burgh was about four bolls weekly. (7) That the inhabitants had no ships or barks, but only (a) 24 boats of between three and four tons burden, employed in carrying herring from the lochs, and of the value, on an average, of 100 merks (£5 11s. 1d. sterling); and (b) two other boats of larger size employed in making salt herrings. These boats were from 12 to 15 tons burden, and of the value, on an average, of 400 merks (£22 4s. 5d. sterling) each. And (8) that the inhabitants were neither owners nor part owners of any ships, barks, or boats belonging to royal burghs nor burghs of regality or barony; nor were they concerned in trade with unfree burghs.¹

AS REGARDED GLASGOW.

(6) That its foreign trade of export and import, according to the most exact calculation that could be made, amounted annually to the value of £2,005 Scots (£167 1s. 8d. sterling) or thereby, and that no retail inland trade by shipping could be condescended upon—the most part of such trade being included in the export and import stated; that about 20 tons of French wine, 20 butts of sack, and 10 or 12 butts of brandy were sold and retailed yearly—the consumption of wines being less or more according to the price being higher or lower; and that about 1,000 bolls of malt were sold and consumed monthly. (7) That the inhabitants had (a) 15 ships, of which eight were then in the harbour² and seven were abroad;³ and (b) eight lighters kept for the most part by merchants for their own use and carrying coals. No other ships, barks, boats, or ferry boats belonged to the inhabitants. And (8) that the inhabitants of the burgh were owners and partners of four ships belonging to unfree burghs, the burden, value, and employment of which ships were stated in a separate paper.⁴

Ten years later, viz., on 10th July, 1702, another committee was appointed by the convention to visit Glasgow and report as to its common good, trade and public works, but the result is not known.⁵

¹ Convention Records, 1677-1711, p. 629.

² These eight vessels represented a total tonnage of 730 tons, or an average of 91 tons, and a total value of £33,333 6s. 8d. Scots (£2,777 15s. 6d. sterling), or an average of £4,166 13s. 3d. Scots (£347 4s. 5d. sterling) [*Ibid.*, 1677-1711, p. 584].

³ These seven vessels represented a total tonnage of 452 tons, or an average of 65 tons, and a total value of £13,200 Scots (£1,100 sterling), or an average of £1,885 11s. 5d. Scots (£157 2s. 7d. sterling) [*Ibid.*, 1677-1711, p. 585].

⁴ *Ibid.*, 1677-1711, pp. 581, 582, 585.

⁵ *Ibid.*, p. 340.

Glasgow had afterwards to pass through a succession of untoward experiences. The failure of the Darien scheme, in which many of its citizens were largely interested, brought serious loss to all, and ruin to many; and even the negotiations for the union with England—which King James VI. had been so anxious to accomplish, and which Cromwell desired to promote—were injurious for a time to commercial pursuits. Nevertheless, the union was effected on 1st May, 1707, in the reign of Queen Anne, and, though unpopular in Scotland for many years, proved most beneficial to the city.¹ Writing in 1777 of the effect of the union, Gibson says:—

“We may from this era date the prosperity of the city of Glasgow. Whatever efforts the inhabitants had made for the introduction and extension of commerce and manufactures prior to this time, they were but trifling and unimportant. By the union the trade to America was laid open, the inhabitants were sensible of their advantageous situation on the west coast, and they began almost immediately to prosecute this commerce. The assiduous attention, the unwearied application which they have exerted ever since that period to the extending of their commerce, and to the introduction and improvement of manufactures, have proved the means of raising the inhabitants of Glasgow to that affluent condition which they are to be found in at present.”²

Between 1666 and 1715 little appears to have been done to improve the channel of the river, but in the latter year an Act of Parliament³ authorised a continuation, till 1st November, 1738, of an imposition of two pennies Scots, or one-sixth of a penny sterling, on every pint of ale and beer sold within the city and its privileges, which imposition had been sanctioned by an Act of the Scottish Parliament in 1693, and had been continued till 1722 by another act in 1705. The act of 1715 sets forth in its preamble the grounds on which the extension was allowed. It states (1) that the city was eminent in situation and usefulness, in trade and manufactures, but was yet more considerable for its loyalty and zeal for the

¹ Opposition to the Union was very pronounced in Glasgow, and resulted in serious riots, which were described by Defoe in his *History of the Union* (1709). Extracts from his history are given in M'Ure's *History of Glasgow* (1736), pp. 318-327.

Nevertheless, a census ordered by the Magistrates in 1708, a year after the

Union, showed that the population then was 12,766, being 818 more than it was in 1688. Four years later, viz., in 1712, it had increased to 13,832. In the latter year the rental of the city is said to have been £7,840.

² *History of Glasgow*, pp. 105, 203-209; *Denholm's History of Glasgow*, pp. 75, 76.

³ 1 George I., c. 44.

reformed religion, constitution, and liberty of the people, whereof, on all proper occasions, it had given undeniable proofs, more particularly by furnishing, at the charge of the inhabitants, considerable numbers of men, well armed and disciplined, not only for defence of the city, but even for the support and defence of the government in other places since the Revolution on divers very remarkable occasions, and lately in a most cordial and cheerful manner in opposition to the "Pretender;" and (2) that the yearly revenues and common good of the city were scarcely sufficient to meet the annual necessary charges of the government of the city, much less for payment of the debts of the Corporation, which had lately been greatly increased by very considerable sums having been laid out for furnishing a battalion of foot to serve at Stirling, and for putting the citizens into a posture of defence against the rebels. This act, however, declared that, as the building of a quay on the Clyde at the city, from the Broomielaw to the Duckett Green, would greatly improve the navigation of the river, and be a conveniency in loading and unloading goods, the magistrates should advance, for the building of the quay, such sums as might be judged necessary by the Merchants' House and Trades' House of the city. On 8th May, 1722, the town council resolved to proceed with the construction of the quay referred to in this act, and directed the scheme to be submitted to the Merchants' House and Trades' House in order to their fixing the amount to be expended on the work.¹ Whether this quay was an extension of that previously constructed,² or an entirely new and improved structure, does not appear, but it was obviously needed to meet the increasing trade of the city. On 22nd June, accordingly, the provost reported to the town council that he and other magistrates had represented the matter both to the Merchants' House and Trades' House, but that the former had made no reply. The Trades' House had, however, on 26th May, expressed their consent to £10,000 Scots [£833 6s. 8d. sterling] being expended on the work, and would be prepared to sanction such further expenditure as might be necessary. The magistrates were instructed to bring the matter again under the consideration of the Merchants' House,³ but the result does not appear. The construction of the quay was, however, gone on with, and on 30th September, 1723, the treasurer of the city reported that payments on

¹ MS. Council Records, XX., p. 507.

³ MS. Council Records, XX., p. 521.

² See pp. 13, 14, 18.

account of the work had been made from time to time to the amount of £10,548 18s. 8d. Scots [£879 1s. 6d. sterling].¹ Many other payments on account of the work were subsequently made, to which, however, it is unnecessary to refer.²

On 2nd July, 1736, the town council remitted to the dean of guild to order the cleansing of the quay at the Broomielaw, and appointed a committee to inspect the sand banks and fords in the river below the Broomielaw, and expend a sum not exceeding £20 sterling on an experiment upon one of the sand banks for clearing the river.³ What the result of that experiment was does not appear further than may be inferred from the fact that in 1740 the magistrates were empowered to expend £100 sterling in deepening the channel below the Broomielaw, and in building "a flat-bottomed boat to carry off the sand and shingle from the banks."⁴ Fifteen years later the necessity for more vigorous action impressed itself upon them, and a succession of engineers were employed to report upon the best means of deepening and improving the river for purposes of navigation.

In 1755 John Smeaton, the engineer of the Eddystone Lighthouse [1756-1759], reported as to this;⁵ and, following upon his report,

¹ MS. Council Records, XXI., p. 76.

² In a statement of the town's charges on public works as at 12th November, 1724, the cost of "the building of the Bromielaw Key, and filling with redd, and timber for front thereof," is put at 30,000 merks; and it is mentioned that £2,000 Scots would be required to complete the work [M'Ure's History of Glasgow, Appendix to 1830 edition, p. 347]. These two sums amount to £1,833 6s. 8d. sterling. M'Ure, in his History of Glasgow, first published in 1736 (1830 edition, p. 231), states with reference to the Broomielaw harbour: "There is not such a fresh water harbour to be seen in any place in Britain; it is strangely fenced with beams of oak, fastened with iron batts within the wall thereof, that the great boards of ice in time of thaw may not offend it; and it is so large that a

regiment of horse may be exercised thereupon."

³ MS. Council Records, XXIII., p. 348.

⁴ *Ibid.*, XXIV., p. 198.

In 1740 the population was 17,043—an increase of 3,211 since 1712. This growth, and the rapid development of commercial activity in the city, explains the subsequent action of the authorities in undertaking, single-handed and without aid either from any of the neighbouring towns or from the Government, to effect the improvement of the Clyde for purposes of navigation. In 1743 the population had increased to 18,366, and in 1757 it—including that of the suburbs—had grown to be 23,546, an increase in fifteen years of upwards of 5,000.

⁵ According to his report there were in spring tides only 1 foot 3 inches of depth at low water, and 3 feet 8 inches at high

the *first* Act of Parliament for improving the harbour and waterway of the Clyde was applied for and obtained in 1758.¹ Its preamble states that the river was then "so very shallow in several parts that boats, lighters, barges, or other vessels could not pass to and from the city except in time of flood or high water at spring tides." It therefore empowered the town council to cleanse, straighten, enlarge, and improve it from Dumbuck Ford to the bridge, and to erect such locks, wears, dams, cuts, and other works as they deemed necessary for promoting the navigation—no dam to be lower down the river than Marlingford. A right to levy dues for constructing and repairing the works thus authorised was also conferred, but it was provided that the duty and dues thereby authorised, after paying expenses, should be applied in rendering the river more navigable, improving its passage, and making and repairing locks, weirs, and other works thereon, in enlarging and repairing the quay of Glasgow, and making the same more commodious, and to no other use or purpose.² Various regulations were also made.

In 1768 John Golborne, of Chester, was consulted, and on 30th November of that year reported that the river was in a state of nature, and that there was not more than two feet of water over the shoal at Kilpatrick Sands and each end of the Nushet Island. He recommended that the river should be contracted by jetties eight miles below Glasgow, and deepened by dredging, at an expense which he estimated at £8,640. The greatest obstacle he stated to be Dumbuck Ford, where the river water, at Pointhouse Ford (now the western boundary of the harbour of Glasgow); and he proposed that a dam and lock should be constructed at Marling Ford, four miles below the bridge, so as to allow vessels drawing four feet of water to pass up at all times to the quay at Broomielaw [Smiles' Engineers, III., p. 311]. No lock or dam was, however, constructed.

¹ 32 George II., c. 62.

In the references which are herein-after made to the various improvements on the Clyde, and to the operations which, with the sanction of parliament, have been effected upon the river by the town council of Glasgow prior to

1825, and since then by the Clyde Trustees, I have drawn largely upon the valuable work on "The River Clyde" published by Mr. James Deas, its engineer, in 1876. He has, moreover, most kindly placed at my disposal many later reports and papers.

I have also to express my obligation to Mr. James Muir, C.A., whose professional investigations into the financial affairs of the Trust in 1898, have been made available in this statement.

² In 1763 a census of the inhabitants was taken under the direction of the magistrates, and the population was ascertained to number 28,300, an increase in six years of 4,754.

divided itself into two channels, and he recommended that a jetty should be extended over the south channel, and the hard crust of gravel removed by dredging. By the adoption of these means he believed the river might be so deepened as to give a depth of four or perhaps five feet up to the Broomielaw at low water. A year later, viz., in 1769, the town council obtained, in accordance with Golborne's recommendation, a report from James Watt¹ as to the declivity of the bed of the river from Broomielaw to Dumbuck Ford, by which report it was ascertained that the depth of the river at low water at Hirst Ford in the harbour was 14 inches, and at Dumbuck ford two feet.²

In 1770 a *second* Act of Parliament³ empowered the town council to make the river navigable from Dumbuck Ford to the bridge of Glasgow by the adoption of the means advised by Golborne to supersede the construction of the locks or dams which the first act conditionally authorised ; to repair and enlarge the quay at Glasgow on the north side of the river at the Broomielaw, and also to erect a sufficient quay on the south side of the river opposite that of Broomielaw ; and to divide the river into three stages at the several places specified "for the more equitable payment of the rates and duties" granted by the Act of 1758. It provided for the continued use of the ferry boats at Govan, Renfrew, and Erskine, free from payment of any tolls, rates, and duties ; and for compensation being made to Renfrew for any damage which might be done to its salmon fishing in the river. Golborne then appears to have been employed to carry into effect his own recommendations, and in 1773 he contracted, for a sum of £2,300, to make the channel of the river, at Dumbuck, 6 feet 10 inches deep, and 300 feet wide at low water. He succeeded, however, in deepening the river ten inches more than he had undertaken to do, and in 1775 received, in consequence, from the town council, an additional sum of £1,500, and a silver cup, while a sum of £100 was presented to his son. At this time he had erected 117 jetties on both sides of the river,

¹Watt had settled in Glasgow as a mathematical and philosophical instrument maker in 1757. In 1767 he solved various difficulties as to the application of steam as a motive power, and, having become a civil engineer, made a survey for the Forth and Clyde Canal for its first unsuccessful scheme. He subse-

quently surveyed and constructed the Monkland Canal in 1786, and supplemented Golborne's report as to the deepening of the Clyde.

²Watt also laid out a ship canal from Glasgow to the sea [Smiles' Engineers, Rennie, p. 311].

³10 George III., c. 104.

and these confined it within narrow bounds, so that vessels drawing more than 6 feet of water came up to the Broomielaw at the height of the tide.

The improvement thus effected in the river channel, and the possibilities which that improvement opened up, seem to have impressed the town council of Glasgow with the belief that a large portion at least of the shipping trade of the city might be brought up to the Broomielaw direct, and that the relations between it and Port-Glasgow might be considerably relaxed. In 1774, accordingly, a contract was entered into between the town council and the feuars of Port-Glasgow and Newark, by which, in consideration of being relieved of various specified obligations, the former made over to the latter certain duties, dues, &c., which they were empowered to levy at the port. Arrangements were also made by that deed for the government of Port-Glasgow and Newark by magistrates and a town council—the senior magistrate to be elected by Glasgow, and the junior magistrate by Port-Glasgow. The arrangement thus come to received statutory sanction in the following year, in an Act of Parliament¹ which gave a parliamentary constitution to Port-Glasgow and Newark, declared it to be a market town, and provided for its water supply, police administration, the erection of public markets, and the repair of the quays. It fully reserved, however, the property, jurisdiction, and power of Glasgow in or concerning the harbour, dock, piers, and quays built or to be built at Port-Glasgow, and particularly the new or mid quay lately built there by Glasgow; as also all rights and privileges, whether of property, superiority, or jurisdiction, which it possessed in or upon the Clyde, save so far as was provided in the contract, and also all its legal rights, estates, and interests.²

Six years later, viz., in 1781, Golborne was instructed by the town council to revisit the Clyde, and report specially as to whether the depth of water at the Broomielaw could be so increased as to admit of vessels trading to England and Ireland. He then found that the channel at Dumbuck, which he had deepened in 1775 to 6 feet 10 inches at low water,

¹ 15 George III., c. 60.

² The powers conferred by that Act in relation to the administration of the town were enlarged, and additional powers conferred in 1803, by the Act 43 George III.; and by the Reform Act, 3 and 4 William IV., c. 77, it was raised to

the rank of a parliamentary burgh with a town council of nine, whereof one was to be provost and two bailies. An additional magistrate was assigned to it by the Port-Glasgow Police Act, 1865 [28 and 29 Victoria, c. 254].

was, by the diversion of the current consequent on his operation, no less than 14 feet at low water, and in some places from 20 to 22 feet deep, and he furnished an estimate for bringing vessels drawing 7 feet of water to the Broomielaw.¹

Eighteen years after Golborne had made his second report, the town council requested John Rennie to report on the manner in which further improvements could be effected; and on his recommendation, in August, 1799, some of the jetties were shortened, others were lengthened, and low rubble walls were constructed from end to end of the jetties so as to secure a continuous uniform channel. Of these jetties more than 200, varying in length from 50 to 550 feet, were constructed between Glasgow Bridge and Bowling, and the land reclaimed from the river became the property of the frontager owners. Much of that land has since been reacquired by the Clyde Trustees at great cost, to enable subsequent improvements of the navigation to be effected.²

In 1806 the town council employed Thomas Telford to advise what should be done with a view to the still greater improvement of the navigation. He disapproved of the jetties projecting into the river from either bank, and, concurring with Rennie, advised that the parallel dykes which that engineer had recommended should be completed, and the river brought as far as possible to a uniform width. In his report, dated 24th May, he stated that on 14th February of that year a Liverpool vessel of 120 tons burden, and drawing $8\frac{1}{2}$ feet of water, had got up to the Broomie-

¹ In 1780 the population of the city and its suburbs was 42,832, an increase of 14,532 since 1763. In 1785 another census, taken under the direction of the magistrates, showed the population to be 45,889, an increase of 3,057 within the five years after 1780.

The gross revenues of Glasgow, Renfrew, Dumbarton, and Rutherglen, the four royal burghs on the banks of the Clyde, for the year 1788, as stated in the returns of the royal burghs appended to the report of the Committee of the House of Commons printed on 17th June, 1793, are as follows:—Glasgow,

£7,239 13s. 7 $\frac{1}{2}$ d.; Renfrew, £391 12s. 11d.; Dumbarton, £357 10s. 9 $\frac{1}{2}$ d.; Rutherglen, £188 14s. 6d. [Printed Report, p. 65.]

² In 1791 the population of the city and its suburbs was 66,578, representing an increase during the preceding six years of 20,689; and, notwithstanding the depressing conditions under which the eighteenth century closed, the population in 1801 was 77,385, an increase during the intervening ten years of 10,807. The rental of Glasgow in 1803 is said to have been £81,484, and in 1805 £152,738.

law with ordinary spring tide. He added also that while vessels could, with light winds, get up the river as far as Renfrew, the plantations near Elderslie frequently took off the winds, and left the vessels becalmed there, to the obstruction of the navigation. He therefore recommended that a path should be constructed, and horses employed in tracking this part of the river. Acting on that recommendation, a towing path, 20 feet wide, was formed on the south side of the river from Glasgow to Renfrew—a distance of five miles—and this path was much used till steam superseded towing by horse-power. Along the path thus made, however, a valuable right-of-way to the public still exists.

At this time the quays along the river formed the only accommodation for vessels loading and discharging, and Telford—disapproving of the extension of these quays—recommended the conversion of a portion of the bed of the river into a wet dock, and the making of a new channel southward. This portion of his advice was not followed, however, and, as the traffic at the harbour increased, quays were extended along both sides of the river.

On 24th December, 1807, Rennie made another report to the town council, in which he advised a system of dredging, the adoption of which has been attended with the best results. Anticipating also the further commercial growth and manufacturing progress of the city, he proposed the construction of two docks on the Broomielaw side of the river, and one on the opposite side of Windmillcroft.¹ He also gave the width of the river as he recommended it should be made; but by subsequent operations that width has been altered, and, with one exception, greatly increased.

At Dumbarton Castle he proposed the width to be 696 feet. It is now 1,000 feet.

At the west end of Bowling Bay he proposed the width to be 504 feet. It is now 400 feet.

At the entrance to the Forth and Clyde Canal he proposed the width to be 440 feet. It is now 590 feet.

At the mouth of the River Cart he proposed the width to be 280 feet. It is now 500 feet.

Immediately above the mouth of the Cart he proposed the width to be 240 feet. It is now 500 feet.

¹ The estimated cost of these three docks was £103,814, but, in a subsequent report in 1809, he advised that a cut should be made on the south side of the river, and also a quay wall, 1,150 feet long, at a cost of £21,500.

At Renfrew Ferry he proposed the width to be 230 feet. It is now 410 feet.

Just below the mouth of the River Kelvin, which is now the lower boundary of the harbour of Glasgow, he proposed the width to be 180 feet. It is now 370 feet.

In the harbour he proposed the width to be 135½ feet. It is now 450 feet.

Two years later, viz., in 1809, a *third* act¹ sets forth in its preamble that, in consequence of the powers vested in the town council by the two acts of 1758 and 1770, the navigation of the river had been greatly improved, its channel deepened and cleansed, the trade and shipping of the river and city had of late greatly increased and was increasing, the ships and vessels belonging and trading to and from the Port of Glasgow had become more valuable and of larger dimensions, and that, by continuing the works then being carried on and adopting others, the river might still be further improved. It then appointed the lord provost, magistrates, and council, who had hitherto acted as a municipal corporation in the exercise of the powers conferred upon them by royal charters and Acts of Parliament to be statutory trustees for the purposes of the Acts of 1758 and 1770, and authorised them, *inter alia*, to deepen the river till it was at least nine feet deep at neap tides in every part between Glasgow Bridge and Dumbarton Castle,² to enlarge the harbour at Broomielaw, to erect sheds, and to construct additional quays and other works on both sides of the river, between the new bridge at Glasgow on the east, and a line drawn parallel to the west side of Clyde Street, in the village of Anderston, on the west. The jurisdiction of the magistrates of the city was also extended over the quays, piers, and other works, erected under the powers of the act, and over the whole of the enlarged harbour; and the rights, privileges, jurisdiction, and powers of the magistrates and council, and of the bailie of the river or firth of Clyde, or ports thereof, by virtue of former Acts of Parliament or royal charters in their favour, or of immemorial usage, were reserved.³

¹ 49 George III., c. 74.

² Previous to this time the powers of the town council of Glasgow with reference to the cleansing, scouring, strengthening, enlarging, and improving the river reached only from the bridge

of Glasgow to the lower end of Dumbuck Ford, but this act extended them down to the castle of Dumbarton.

³ In 1811 the population of Glasgow is said to have been 100,749, and its rental in 1815 £240,000.

Under their statutory powers the town council proceeded with the deepening, widening, and straightening of the river. But in 1811-12 a new element was introduced into the navigation of the Clyde by the appearance of the steamboat "Comet," constructed for Henry Bell, of Helensburgh, according to his designs.¹ Though it drew only four feet, it required to leave both Glasgow and Greenock at or near high water in order to prevent its grounding in the river. This enterprise, however, did not meet with financial success, but it was the forerunner of a mighty change, and by 1818 passenger steamers between Glasgow, Rothesay, Largs, and Campbeltown were running daily, though, even then, undesirable stoppages, occasioned by the grounding of the steamers on shoals and sandbanks, were not unfrequent.

Previous to 1818 no vessels engaged in foreign trade came up the river further than Greenock or Port-Glasgow. Their cargoes were discharged

¹ When the harbour undertaking was handed over by the town council of Glasgow as a corporation to the same body as statutory trustees, the former received from the latter the balance of the advances then due to it. The amount, which at one time was as much as £20,000, was then £172. It also received, under the authority of Parliament (1) £6,397, being the amount of the dues collected during 1809-10, less the cost of collection; and (2) £12,754, being the price fixed by a jury as the value of the assets of the transferred undertaking, the net revenue of which was then £6,397. The undertaking had thus been made by the town council upon the security of the common good, and it was not until it was an assured success that it was handed over to the trustees. [Mr. James Muir's evidence before the Lords Committee, 1898].

In 1799 an unsuccessful attempt had been made to apply steam to navigation on the Seine; but in 1802 a steamer built by Mr. Symington was engaged in drawing barges on the Forth and Clyde

Canal; and in 1807—five years before the appearance of the "Comet"—the steamer "Clermont" was running between New York and Albany.

Prior to 1812 "the vehicles of communication to the new port of Greenock"—which can now be reached by rail in 36 minutes, and by steamer in an hour and a-half—"were a species of wherry-built nutshells designated 'flyboats,' the justice of which appellation will be sufficiently apparent when it is considered that they generally completed their voyage in the short space of ten hours! The conveyances of goods and passengers to places more remote were a more ambitious sort of machine, generally known by the name of 'Packet,' which, with a fair wind, could reach the Isle of Bute in three days; but, when adverse, thought it 'not wonderful' to plough the billowy main for as many weeks!" [Chronicles of St. Mungo, p. 313.] The going from Glasgow to the Isle of Bute, or to Brodick, in Arran, now only occupies by rail and steamer an hour and a-half.

into lighters, by which they were carried to Glasgow. These lighters were sailed, rowed, and poled up to Renfrew, and were then towed up to the harbour by men or horses.

The largest ship belonging at that time to either Glasgow or Greenock did not exceed 400 tons, while 250 to 300 tons was the usual size. The largest lighter was about 60 tons.

Steam tugs for towing the lighters followed soon after the introduction of passenger steamers, and in recent years steam has been extensively applied to the lighters themselves. Towing sailing vessels on the river by steam tugs has for many years been almost universal. All large vessels employ tugs. Small craft are formed into trains, and each train is towed by a tug.

Before the introduction of steamboats, flyboats for passengers, with sails and oars, were used, and a whole day was often spent on the passage between Glasgow and Greenock. Lighters drawing not more than four feet six inches have been known, owing to neap tides and frequent groundings, to take six weeks to complete the passage to and from these places. Steam lighters now do the same double voyage in about as many hours.¹

The increase of the trade and shipping of the river, and the larger size and greater value of the ships which frequented it, induced the town council, as Clyde Trustees, on the advice of Telford, obtained in 1806, 1819, and 1821, and of John Clark, superintendent of the river, in 1824, to apply for and obtain a *fourth* Act of Parliament in 1825.²

By this act the trustees were empowered, *inter alia*, still further to enlarge the quays and harbour of the Broomielaw, and, to deepen to at least 13 feet, the channel of the river, and improve its navigation, not only within the limits described in previous acts, but upwards to the south-eastern extremity of Glasgow Green, and downwards to the harbour of Port-Glasgow; to enlarge the quays and harbour; to erect storehouses for the temporary deposit of cargoes, and to render the harbour and river police more efficient. It also added to the trustees five persons interested in

¹ In 1819 the rental of the city was said to be £270,646, and its population in 1821, 147,043.

Mr. Deas mentions that the first iron vessel was built by Thomas Wilson at Faskine, on the banks of the Monkland Canal, eleven miles from Glasgow, and

was launched on the 28th May, 1818. It was named the "Vulcan," and in 1873 was still plying on the Clyde, conveying minerals from the Forth and Clyde Canal to ports on the river.

² 6 George IV., c. 117.

the trade of the Clyde, and nominated annually by the town council, and empowered the trustees to levy increased river and tonnage duties to enable them to discharge the debt then existing and to meet the expenditure which the act authorised. The trustees were also required to keep separate accounts of the trust, and to appoint a separate clerk and treasurer. By this act also the river was divided into three stages; the rates and duties payable by ships and other vessels, goods, merchandise, and commodities passing within these several stages were defined; the respective interests of Dumbarton and of burgesses of Glasgow under a contract entered into between it and Glasgow in 1700 were regulated, and that contract was rescinded. The trustees were, moreover, empowered not only to continue the harbour police then existing, but to establish and maintain a more efficient system of police [sec. 23], and also to make bye-laws for regulating the police, not only of the harbour, but of the river, the observance of which might be enforced by penalties leviabie and recoverable in a summary manner at the instance of the harbour master, or of the procurator-fiscal of the court of the bailie of the river and firth of the Clyde [sec. 56]. This act, it was declared, should not prejudice in any degree the established ferries of Govan, Renfrew, Erskine, and West ferry on the Clyde, and it reserved the jurisdictions, rights, privileges, and powers of the magistrates and council of the city and of the bailie of the river.

Under the new arrangements which this act introduced, and in the exercise of the further powers which it conferred, the deepening, widening, and straightening of the channel of the river were so continued, under the advice of Telford in 1806, of Rennie in 1807, and of Logan in 1835, that, in 1836, Mr. Walker, the consulting engineer of the trust, was able to report that from seven to eight feet was the depth at low water at the Broomielaw; that the lift of a neap tide at Glasgow Bridge (which was only sensible in 1755) was four feet, and of a spring tide seven or eight feet, thus making a depth of twelve feet at high water of neap tide, and fifteen feet of spring tide. The result of the deepening thus effected was that vessels of from 300 to 400 tons could be brought up to the city. Till 1834 the river and harbour dues leviabie by the trustees were annually disposed of by public sale, but have since been collected by the trustees.¹

¹ In 1771 the dues were £1,021; in 1810, £1,021; in 1833, £20,260; and in 1834, £21,260, £4,959; in 1812, £5,525; in 1814, £6,128; exclusive of shed dues, which in 1833

In 1840 a *fifth* act¹ altered the constitution of the trust by appointing the several persons undernoted to be the sole trustees for carrying into execution the acts of 1758, 1770, 1809, and 1840, viz. :—the lord provost and five bailies of the city (excluding the bailie of the river Clyde), the dean of guild and deacon-convener of the city, fifteen members of the town council elected annually as therein directed, and the ten following persons, who, it was declared, should not be members of the town council of Glasgow, viz. :—the chairman of the Chamber of Commerce of the city, three persons to be appointed annually by the Merchants' House of Glasgow, two to be similarly appointed by the Trades' House, two by the bailies and birley men of the barony of Gorbals, one by the magistrates and council of the burgh of Calton, and one by the magistrates and council of the burgh of Anderston.²

It declared [sec. 50] that the established ferries of Govan, Renfrew, Erskine West ferry, and the ferry between Cardross and Port-Glasgow, should not be affected by anything in the several acts above referred to, but should be used and enjoyed in as ample and beneficial a manner as in times past, without being subject to the payment of any of the tolls, rates, or duties granted by any of the previous acts, and without being subject to any other jurisdiction than that to which they were subject previous to the passing of the act. The clause further gave special protection to Renfrew in relation to the accesses or approaches to the Renfrew ferry. It also empowered the trustees [sec. 58] to provide boats for the convenience of persons crossing from one side of the harbour to the other.

amounted to £1,283, and in 1834 to £1,564.

¹ 3 and 4 Victoria, c. 118.

² Gorbals was a barony which was acquired in 1650 by the magistrates and council of the city, who appointed the bailies of the barony and the officers of the barons' court. The territory of the barony was included in the parish of Govan, and a portion of it was, by the Burgh Reform Act, included within the parliamentary boundaries of Glasgow. Calton, including the village of Old and New Calton, was erected into a burgh of barony in 1817, and was governed by

a town council, consisting of a provost, three bailies, a treasurer, and eleven councillors, who also acted as birley men within the burgh. The village of Anderston was erected into a burgh of barony in 1824, and it and its territory were included within the parliamentary bounds of Glasgow. It was governed by a provost, three bailies, a treasurer, and eleven councillors.

The burghs of Calton and Anderston, and the main part of the barony of Gorbals, were incorporated with the city in 1846.

By this act also the river was divided into three stages for the more equitable payment of the river duties leviable by the trustees, and it conferred upon them further borrowing powers, and power to make by-laws, not only as regarded the harbour, but as regarded the river and firth of Clyde. It also provided [sec. 117] that the agreement previously made with Renfrew as to its fishings should not be affected. Beyond this, however, it made no reservation as to that burgh.

The act further authorised the further deepening, widening, and straightening of the river, and the construction of a dock at Glasgow. The deepening was to be made till the river and harbour at every point was not less than 17 feet at neap tides. The effect of these improvements has been to lower the level of the water in the harbour by eight feet, and so to prevent inundations of the low-lying portions of the city along both sides of the river.¹

A *sixth* act, obtained in 1846,² sanctioned the construction of a wet dock or tidal basin, but an Act was obtained in 1870 authorising its abandonment and the construction of a larger dock.

The *seventh* act, passed in 1854,³ was purely a money act. It extended the borrowing powers conferred by previous acts and by it to £1,504,350 17s. 9d. [sec. 3], and required the trustees annually to set apart out of the surplus revenue of the trust a sum equal to the average annual surplus of the ten preceding years as a sinking fund to be applied in paying off the principal sums borrowed under the authority of the several acts [sec. 21].

In the same year the existence of a rock, known as the Elderslie Rock, four miles west of the Broomielaw, was discovered by the grounding upon it of the "Glasgow," one of the first steamers trading between Glasgow

¹ The last time the river was over the quays in the harbour was in 1856.

In 1831 the population of Glasgow was ascertained to be 202,426, an excess of 55,383 over that of 1821. In 1841 it was 255,650, representing an increase of 53,224 during the preceding ten years.

² 9 Victoria, c. 23.

³ 17 Victoria, c. 62.

In 1851 the population was 329,096, an increase of 73,446 during the preceding ten years.

The rental of Glasgow previous to 1854 cannot be ascertained authoritatively, but on 10th August, 1854, the Valuation of Lands and Heritages Scotland Act, was passed [17 and 18 Vic., cap. 91], and in the following and succeeding years a valuation roll of the burgh has been made up. The valuation of the city in 1855 was £1,362,168.

and New York, and the injury done to her bottom in consequence. On examination a hard whinstone or trap dyke was found to extend over an area of the bed of the river 925 feet in length by about 320 feet in breadth, and operations to remove the obstruction were commenced by Mr. John F. Ure, engineer of the trust, and followed by his successor, Mr. Andrew Duncan, with the result that, by 1869, after an expenditure of £16,000, a depth of 14 feet at low water over one-half of the width of the channel was obtained. In 1880 operations were resumed by Mr. James Deas and continued till the final removal of the rock in 1886, when a uniform depth of twenty feet at low water over every part of the channel was attained. The means employed by Mr. Deas were diamond drilling and electric blasting by dynamite. The operations extended, in all, over upwards of twenty years, and cost, from first to last, about £70,000.¹

The *eighth* act, in 1857,² continued or renewed the powers previously conferred on the trustees to take lands and execute works for the improvement of the navigation; it provided for the reconstruction of Govan Ferry South Slip and Renfrew Ferry North Slip, both of which works were carried out—the former in 1864, and the latter in 1865; and on a narrative of the trustees having acquired, at an annual feu-duty of £800, two thousand square yards or thereby, with the ferry-house and pertinents thereon adjoining the Govan Ferry, and right to the ferry, ferry boats, and implements of ferry, and ferry dues, &c., arising therefrom, they were empowered to levy specified rates at the ferry, to be applied for the purposes of the navigation, to use the trust funds in paying the feu-duty [sec. 15], and to lease the ferry rates authorised to be levied by them for periods not exceeding three years [sec. 16].

The *ninth* act, of 1858,³ consolidated and amended the several previous acts, and, in view of the great increase of the shipping and trade of the city, authorised the channel of the river to be further enlarged and improved, and additional accommodation to be provided in the harbour. It altered the constitution of the trust—which, as has been observed, was vested in the town council of Glasgow exclusively prior to 1825; subsequently in the town council with the

¹See Mr. Deas' paper "On the Improvement of the Clyde above Port-Glasgow." Proceedings of Institution of Mechanical Engineers. Edinburgh Meeting, August, 1887.

²20 and 21 Victoria, c. 92.

³21 and 22 Victoria, c. 149.

addition of five other persons interested in the trade and navigation of the river; and after 1840, in a body of thirty-three trustees—twenty-three of whom, including the dean of guild and deacon-convener, were members of the town council—and placed the administration in the existing body of twenty-five trustees—elected as has been already stated—which it appointed to be styled “The Trustees of the Clyde Navigation,” and to be a body corporate, with perpetual succession and a common seal. It restricted the borrowing powers of the trustees to £1,504,000 [sec. 45]; re-established the sinking fund on the lines specified in the act of 1854; and empowered the trustees to fund the whole or a portion of their debt [sec. 65].

It declared the limits of the Clyde to include the whole channel and waterway of the river forming the harbour, as far down as to a straight line drawn from the eastern end of Newark Castle on the south shore of the river, to the mouth of Cardross Burn on the north shore; the whole works within these limits for the improvement of the navigation constructed or authorised to be constructed by the trustees; and the whole lands acquired for the purposes of these works, or occupied by the trustees in connection with the navigation.

Subject to its provisions, and those of the agreements confirmed by it or by previous acts, and those of any conveyance granted to the trustees, this act further declared the undertaking to consist (1) of the deepening, straightening, enlarging, widening or confining, dredging, scouring, improving, and cleansing the river and harbour, until a depth of at least 17 feet at neap tides had been attained in every part; (2) the altering, directing, or making the channel of the river through any land, soil, or ground, part of the then existing or former course or bed of the river; (3) the forming and erecting on both sides of the river of such jetties, banks, walls, sluices, and works, and such ferries for making, securing, continuing, and maintaining the channel within proper bounds, as the trustees might think necessary; (4) the digging or cutting the soil or banks of the river or its bed, and laying the same on the most convenient banks of the river; (5) the cleansing, scouring, and opening any other streams or watercourses which then fell into the river, and the digging and cutting the banks of the same for improving the navigation; (6) the digging, cutting, removing, carrying away, and using such earth and other materials taken out of the ground so operated upon, as the trustees might think fit, either for improving the navigable channel or for bringing any other

streams or watercourses into the river, so as to bring up a greater quantity of tidal water; (7) the erecting, repairing, and maintaining of wharves, transit sheds, warehouses, cranes, workshops, and other works connected with the river and harbour; (8) the erecting and mooring of such beacons and buoys as might be necessary or expedient for the use and guidance of vessels in the harbour and river; and (9) the constructing and completing of the several wet docks or tidal basins, quays, wharves, ferry slips, approaches, embankments, or river dykes, and all other works and improvements authorised by previous acts.

It provided, however, that nothing contained in it should affect in any degree the established ferries of East Ferry of Erskine, West Ferry of Erskine, the ferry between Cardross and Port-Glasgow [sec. 88], the ferry of Renfrew [sec. 91], and the harbour of Port-Glasgow. It also, "for the more equitable payment of the rates" which the trustees were authorised to levy, divided the river below Stockwell Bridge—formerly called the "Old Glasgow Bridge"—into three stages, and subjected all vessels, goods, animals, &c., passing on the river within these limits to the rates therein specified [sec. 99]. And it empowered the trustees to establish and maintain a body of police for the security and protection of the trade and shipping [sec. 120], which police it placed under the direction of the superintendent of police of the city of Glasgow—the trustees determining the number, rank, and description of the officers to be employed in each department, and the salaries to be paid to them [sec. 121].¹

In 1864 a *tenth* act² empowered the Clyde Trustees to lay down lines of rails or tramways in connection with the quays at the harbour; to make certain alterations on the rates then leviable by the trustees [sec. 24], and to extend the borrowing powers of the trustees to £2,000,000.

In 1867 the first dock, known as Kingston Dock, was opened on the

¹ In the process of deepening the channel of the river previous to 1862 all the material dredged was deposited on the foreshore or low-lying land, and many acres were thus reclaimed. The reclaimed land became the property of the riparian proprietors without cost. [*Engineering Review*, 20th December, 1894.]

In 1861 the population of Glasgow was 395,503, being an increase of 66,407 during the previous decade.

The rental of Glasgow for the same year, as appearing in the valuation roll, was £1,625,148.

² 27 and 28 Victoria, c. 248.

south side of the river. It has $5\frac{1}{3}$ acres of water space and 830 lineal yards of quayage, is substantially wharfed all round, and has a depth of 10 feet at low water in front of the wharves, and 14 feet in the centre of the dock.

In 1868 an *eleventh* act¹ authorised the trustees to construct what is now known as "No. 1 Graving Dock," on the south side of the river, and the quay or wharf now known as "Yorkhill Wharf," with river walls, streets, and other works.² It also increased the borrowing powers of the trustees to £2,600,000.

In 1870 a *twelfth* act,³ to which reference has already been made, empowered the trustees to construct and maintain a dock or tidal basin, quay or wharf, road or street, and tramway on the north side of the river and harbour, to levy rates or tolls for the use thereof, and to abandon the construction of the wet dock or tidal basin at Stobcross, and the quays, wharfs, and other works; to confirm agreements with the North British Railway; to empower the trustees to subscribe £150,000 for the construction of the Stobcross railway; and to increase their borrowing powers to £3,200,000.

Under the powers conferred by this last-named Act—

(1) The tidal dock known first as Stobcross Dock, but now as the "Queen's Dock," has been constructed. It has a water area of $33\frac{3}{4}$ acres, with 20 feet depth at low water. The quayage area is $26\frac{2}{3}$ acres, and the quays are 3,334 yards, or 1·9 mile in length. It comprises three basins—the north, 1,866 feet long by 270 feet wide; the south, 1,647 feet long by 230 feet wide, with a quay between them 195 feet broad; and an outer basin, 1,000 feet long and 695 feet wide at its widest part. The dock is approached by an entrance 100 feet wide, which is crossed by a swing bridge capable of carrying a rolling load of 60 tons on any part of its roadway. The dock was begun in 1872 and completed in 1880.

(2) Stobcross Quay, which is a continuation of Finnieston Quay, on the north side of the river, was completed in 1882, and the Plantation Quay on the opposite side was completed in 1874.⁴

¹ 31 and 32 Victoria, c. 124.

² At this time Mr. Deas states the water area of the harbour was 70 acres, the length of the quayage was 5,604 yards, and the gross annual revenue £143,840. [*Engineering Review*, 21st January, 1895.]

³ 33 and 34 Victoria, c. 54.

⁴ In 1871 the population within the parliamentary and municipal boundary was 477,710; including the ancient royalty, 490,442; and including the suburbs, 565,150.

The rental of Glasgow for the same year was £2,126,324.

In 1872 the trade and commerce of the country had an unprecedented extension, which culminated in the early part of the following year. The building of sailing ships greatly decreased, while steam vessels of large tonnage could not be supplied fast enough to meet the demand. During this period of inflation sufficient quay accommodation could not be provided with sufficient rapidity, and ships, having to be fitted out, had to wait for weeks to obtain crane berths. To meet these requirements the trustees, in July, 1872, acquired, at a cost of £90,660, the Clyde-bank Shipbuilding Yard, on the south of the harbour, 23,122 square yards in extent, with a frontage to the river of 145 lineal yards. This enabled the quays to be extended continuously from Glasgow Bridge to Govan, a length of 3,522 yards, or 2 miles 2 yards, without a break, save the entrance to Kingston Dock.

A *thirteenth* act was obtained in 1873,¹ by which the trustees were empowered to construct a graving dock, quay or wharf, river wall, road, and other works on the south side of the river and harbour, and quays or wharfs, river wall, and other works on the north side thereof; to levy rates for the use thereof; to stop up portions of certain roads or streets; to abandon the construction of certain works authorised by the act of 1868; and to increase the borrowing powers of the trustees to £3,700,000.² Stobcross Slip Docks, having a river frontage of 180 lineal yards and an area of 8,470 square yards, and Lancefield Dock, with a frontage of 84 lineal yards and an area of 2,456 square yards, were thereafter acquired, the former at a cost of £87,500, and the latter at a cost of £35,000. In part of the former a wharf was erected, and in front of the latter a quay wall.³

To enable the Clyde, between Linthouse and Renfrew on the south side, and between Scotstoun to the east march of Elderslie on the north side, to be widened, 83,000 square yards, or fully 17 acres of land, were acquired, at a cost of £23,500. The width of the river between these points is now 515 feet from bank to bank.

A *fourteenth* act, passed in 1878,⁴ empowered the trustees to construct ferry works and establish a ferry at Stobcross in the harbour; to make and maintain works for that purpose; to levy and alter rates; and to

¹ 36 and 37 Victoria, c. 115.

² 31 and 32 Victoria, c. 124.

³ In 1875 the first public graving dock was completed. It is 555 feet long by 22

feet 10 inches on the sill at high water spring tides.

⁴ 41 Victoria, c. 47.

erect and maintain offices ; it also extended the borrowing powers of the trustees to £4,530,000. The ferry authorised by this act is known as the Finnieston Ferry.¹

A *fifteenth* act, obtained in 1883,² authorised the construction of two docks or tidal basins ; one entering from the south side of the river, near the west end of Plantation Quay wall, and the other commencing near Whitefield Road, Govan ; a connecting basin between them, with swing or drawbridges, and two graving docks ; two double lines of tramway for the accommodation of the dock traffic ; and other works. It defined the harbour as including the Clyde between Albert Bridge (formerly called Hutchesontown Bridge) and the river Kelvin, with the whole docks, quays, and other works belonging to the trustees ; increased their borrowing powers to £6,000,000 ; applied to the money borrowed various provisions of the acts of 1858 and 1864 ; and appointed the sinking fund provided by the act of 1858, and extended and applied to the acts of 1864, 1868, 1870, 1873, and 1878, to come into operation as on 30th June, 1884. The dock constructed under the powers of this act is known as the "Prince's Dock." It is situated on the south side of the river at Govan, and is immediately opposite the Queen's Dock. The tidal dock occupies 35 acres, has an available quayside of 3,737 yards, or fully two miles, and a depth of water at high tide of 31 to 39 feet, and at low tide of 20 to 28 feet.

In 1886 a second public graving dock, authorised in 1873, was opened. It is 575 feet in length by 22 feet 10 inches on the sill at high water spring tides.

A *sixteenth* act, passed in 1884,³ authorised the construction of two additional wharves, the one called "Shieldhall Wharf" and the other "Dalmauir Wharf;" the acquisition of lands for that purpose, and for providing cattle quarantine stations, cattle depots, timber yards, and conveniences connected therewith ; and for other purposes. Shieldhall Wharf and the lands acquired by the trustees under this act were declared to be included within the harbour [sec. 12] ; the borrowing powers of the trustees were extended to £6,250,000 ; and the provisions of the acts of 1858 and 1864 as to borrowing and sinking fund were applied to the extended borrowing [secs. 14-16]. A portion of Shieldhall Wharf was completed in 1886, and a quarantine station and cattle depots were provided.

¹ In 1881 the population of the city was 511,415. Its rental was £3,417,263 3s.

² 46 and 47 Victoria, c. 156.

³ 47 and 48 Victoria, c. 91.

A *seventeenth* act, passed in 1887,¹ extended the periods limited by the act of 1883 for the compulsory purchase of lands and for the completion of the railway thereby authorised, and conferred further powers on the trustees and the Clyde Pilot Board as to the collection of rates.

An *eighteenth* act, obtained in 1888,² repealed the provisions of the act of 1858 in regard to the election of trustees by shipowners and ratepayers, and enacted rules to be observed in these elections.

A *nineteenth* act, in 1890,³ authorised the trustees to construct a new road with tramways upon it, in part substitution for certain roads and tramways authorised by the act of 1883; to abandon two graving docks which had been authorised; to construct and maintain a new graving dock immediately to the south of, and parallel with, the two existing graving docks, commencing on the west side of the entrance to the docks authorised by the act of 1883, and terminating at or near the east side of Maxwell Street, Govan; to abandon some of the works authorised by the act of 1883; and for other purposes. Under the powers conferred by this act the graving dock No. 3 was formed. It is one of the largest of the kind in the United Kingdom. Its total length is 880 feet; the width at the entrance is 83 feet; and it has a depth of water of 26½ feet on the sill at high water spring tides. The two docks previously constructed are 551 and 575 feet long respectively, and are 72 feet and 67 feet across the entrances respectively, with a depth of water on the sill at high water spring tides of 22 feet 10 inches.

A *twentieth* act, in 1891,⁴ authorised the construction of (1) a new road, with tramways upon it, in substitution for portions of roads and tramways authorised by the acts of 1883 and 1890; (2) other roads, a railway, and a dock tramway; and (3) a quay or wharf at Clydebank. It also (4) sanctioned the abandonment of the railway and some of the works authorised by the acts of 1883 and 1890. The wharf at Clydebank has not yet been constructed.

A *twenty-first* act, in 1894,⁵ extended the periods limited by the

¹ 50 Victoria, session 2, c. 8.

² 51 Victoria, c. 20.

³ 53 and 54 Victoria, c. 156.

⁴ 54 Victoria, c. 38.

In 1891 the population of the city was 565,714. Its rental was £3,455,540.

But in this year the boundaries of the city were extended, and the population of the extended city was 636,185. The rental of the extended city was £4,033,554.

⁵ 57 and 58 Victoria, c. 168.

act of 1891 for the compulsory purchase of lands, and for the completion of the railway then authorised, and conferred further powers on the trustees as to rates and other objects.¹ And

A *twenty-second* act, in 1897,² extended the periods limited by the act of 1894 for the compulsory purchase of lands, and for the completion of the railways authorised by the act of 1891.³

By the adoption of the means thus indicated, and the exercise of the powers thus obtained, the town council of Glasgow previous to 1825, and the Clyde Trustees, as constituted under the provisions of the acts of 1809, 1825, 1840, and 1858, have made the river a great highway for ships of the largest class, and the port of Glasgow one of the first rank among the shipping ports of the world. All this, involving an enormous expenditure, has been done by and for Glasgow by its town council and by the Clyde Trustees, with the tacit consent of Renfrew, and without the contribution by it, or any of the other burghs on the Clyde, of a single sixpence. In the process, moreover, the riparian proprietors on either bank of the river have largely benefited financially, not only by the land which these operations have added to their former territory, but by the increased value which has accrued to the remainder of their estates by reason of its proximity to the city, whose prosperity and development have been so largely promoted by the operations of the trustees.

Summarising the results of the operations of the Trustees in the exercise of the powers conferred by their several acts, the following facts have to be stated:—

In 1755 the Clyde at Glasgow was only 15 inches deep at low water and 3 feet 8 inches at high water. The low-water level in the harbour is now 18 feet 9 inches higher than it then was; and the channel, which

¹ In 1895, Mr. Deas states, the water area of the harbour was 172½ acres—an extension during twenty-seven years of 102½ acres; the quayage 11,883 yards—an extension during the same period of 6,279 yards; and the revenue £371,976, an increase during these years of £228,136. [*Engineering Review*, 21st January, 1895.]

² 60 and 61 Victoria, c. 31.

³ In 1897 the population of the city

was 715,579, and that of the three suburban burghs of Govan, Partick, and Kinning Park, was 133,500, making a total of 849,079. The rental of the city was £4,532,181, and that of the suburban burghs was £593,144, making a total of £5,125,325.

At the present time (1898) the population of the city and of the three suburban burghs may be estimated at 864,079, and its rental £5,300,000.

along its whole course from Glasgow to Port-Glasgow is now virtually level, is so deep that vessels drawing 27 feet come up on a single tide.

During the last fifty years the total quantity of material dredged from the river and harbour, including the dredging done in connection with the construction of docks, amounted, as at 30th June, 1897, to 50,721,710 cubic yards.

In 1792 the quayage of the harbour of Glasgow was only 382 yards in length and the water area four acres. In 1840 the quayage was 1,973 yards in length, and the water area 23 acres. In 1869 the quayage was 5,604 lineal yards, or 324 yards more than three miles, and the water area 76 acres. In 1887 the quayage was fully six miles in length, and the water area 154 acres. The quayage is now 14,606 yards, or fully eight and a-quarter miles, in length—7,263 yards being on the north and 7,343 yards on the south side of the river. The water area of the portion of the river which is lined on each side by quays or wharves is 132 acres; and of the three tidal docks is 74 acres—together, 206 acres.

The area of the existing quayage is 546,581 square yards, or about 113 acres, and of this 170,508 square yards, or about 35½ acres, are covered with sheds, of which 53,966 square yards consist of two storeys.

On the quays and wharves are two cranes of 130 tons, one of 75 tons, one of 60 tons, one of 50 tons, and one of 40 tons, besides numerous other cranes of from 25 tons to 30 cwts. capacity. All these are worked by steam or hydraulic power. The large cranes are provided with hydrostatic weighing machines capable of weighing up to 160 tons. The total number of cranes belonging to the Clyde Trustees on the quays and wharves is 64.

The trustees have also 28 waggon and lorry weighing machines, two of which are capable of weighing up to 90 tons, besides various other appliances connected with the quays, wharves, and sheds.

Within the precincts of the harbour, six ferries across the river have been established by the trustees, two of them being for vehicular traffic. All the ferry boats are propelled by steam.

Three light towers mark the three principal bends of the river above Bowling.

The deep-water channel between Bowling and Port-Glasgow is defined by beacons, perches, and buoys, and to facilitate navigation of that channel by night the trustees have provided two lighthouses, one light-ship, and two lighted beacons. Seven lighted buoys were placed by them

a number of years ago on the south side of the channel between Dumbarton and Port-Glasgow, and the Clyde Lighthouses Trustees have recently continued the same mode of lighting the channel between the Clyde Trustees' boundary at Port-Glasgow and the Tail of the Bank at Greenock.

The sole illuminant used by both the Clyde Trustees and the Clyde Lighthouses Trustees is Pintsch's Patent Compound Oil Gas, manufactured at the works of the Clyde Lighthouses Trustees at Port-Glasgow. The lighthouses, lightship, light towers, and lighted beacons and buoys belonging to the Clyde Trustees, and also the lightship, light towers, lighted buoys, and lighted beacons of the Lighthouses Trustees, are alight continuously night and day. The lighthouses of the Lighthouses Trustees are lit with oil, and burn only from sunset to sunrise.

In consequence of the improvements which have been thus effected on the river, shipbuilding on the Clyde, in and for eight miles below the harbour of Glasgow, has not only been rendered possible, but has been so developed as to form now the most important centre of shipbuilding in the kingdom. A large portion of the mercantile steam navy of the world is constructed in the shipbuilding yards within that area, and a considerable number of sailing ships of large tonnage are built in and launched from these yards.

The expenditure of the Corporation in improving the river previous to 1770 cannot be ascertained, but since 1810, and down to the 30th June, 1897, £7,209,393 of capital have been expended in forming and developing the harbour, in deepening, widening, and straightening the river, and in providing the several appliances for the conduct of the business of the trust. That expenditure is exclusive of any charge for the services of the manager, engineer, treasurer, and clerk, and also of interest on expenditure during construction.

Of that gross amount, £6,426,908 19s. 9d. have been expended on the upper stage of the river, £296,942 on the middle stage, and £485,542 11s. 6d. on the lower stage. The total debt of the trust as at 30th June, 1897, amounted to £5,457,479 2s.¹

Under the circumstances thus described a bill was promoted in Parliament by certain persons in 1896-97 to obtain statutory authority to

¹ Mr. James Muir's Evidence before the Lords' Committee in 1898.

construct a dock, $11\frac{1}{2}$ acres in extent, at Old Kilpatrick, a mile above the harbour of Bowling, formed in 1846¹ as an exit into the Clyde from the Forth and Clyde Canal. But the project was strenuously resisted, both by the Clyde Trustees and by the Corporation of Glasgow, who maintained that, so long as the trustees fulfilled the function for which they were appointed by Parliament, no other harbour authority should be allowed to intervene. That contention the committee of the Commons, to which the bill was referred, sustained after a prolonged and costly enquiry. Nevertheless, the same parties gave public intimation of their intention to renew the struggle in session 1897-98, but the hazard of such an attempt seems to have induced them to defer it. A somewhat similar scheme, prepared by the same engineer, in concert with another, was, however, launched, ostensibly by Renfrew, on the opposite side of the river. This scheme also proposed a considerable extension of the boundaries of the burgh of Renfrew, so as to include not only the site of the proposed harbour, but also a large rural area not occupied by houses or other buildings, and also an area on which the Corporation of Glasgow were obtaining Parliamentary powers to erect works in connection with the sewage of the south side of the city. Petitions against the Bill were presented to the House of Commons by the Clyde Trustees, by the Corporation of Glasgow, by the trustees of the harbour of Greenock, by the Glasgow and South-Western Railway, and by the County Council of Renfrew, and objections to the *locus standi* of the petitioners were lodged by the promoters. These objections were only sustained, however, as against the railway company. The Bill went into committee on the 15th of June, and the proceedings before it extended till 6th July, on which date the chairman (Mr. Baldwin) announced the unanimous decision of the committee to be, "That so much of the preamble as relates to the harbour extension, and also so much of the preamble as relates solely to the burgh extension involved in the harbour and subsidiary works is proved. The remainder of the preamble, relating to the burgh extension, is not proved." On the following day, the clauses of the Bill, as amended to carry out the decision of the committee, were submitted and agreed to; but the Clyde Trustees, the Corporation, and the Greenock Harbour Trustees withdrew, reserving their opposition before the House of Lords. The Bill went into committee in the Lords on 19th July, and the Clyde

¹ 9 and 10 Victoria, c. 384.

Trustees, the Corporation of Glasgow, the Glasgow and South-Western Railway Company, and the Greenock Harbour Trustees appeared in opposition. The objection to the *locus standi* of the railway company was renewed by the promoters, but the *locus* was allowed, and the proceedings extended till the 22nd, when the chairman (the Earl of Kintore) announced the decision of the committee, as follows:—"The committee have given their earnest consideration to this important Bill, and they are unanimously of opinion that it is not expedient that it should further proceed." Thus ended the second attempt to encroach upon the rights of the City of Glasgow and the Clyde Trustees—as these have been conferred from time to time in respect of the great work done by the latter in converting the shallow channel of the Clyde into a navigable river, and providing at great cost a harbour, docks, and other appliances of the first rank, which have benefited not only the city, but all the surrounding districts.

In conclusion, it may be well to advert, somewhat more in detail, to the special circumstances of Old Kilpatrick and Renfrew.

In 1768 an act of Parliament¹ authorised the construction of a canal, known as the Forth and Clyde Navigation, from the River Forth, near the mouth of the River Carron, to the Clyde near Bowling, and it was opened for traffic in 1790.² The only connection which that canal had with the Clyde till 1846 was by means of a lock, but in 1846 the proprietors of the canal obtained parliamentary authority to construct an outer basin or harbour at Bowling Bay, with wharves or quays, and a lock connecting the harbour with the canal.³ The works thus authorised were completed shortly afterwards. The area of the Canal Company's basin is about 3½ acres, having 390 lineal yards of frontage and wharfage inside the basin, and 196 lineal yards facing the river. About the same time that this basin was formed by the Canal Company, the Clyde Trustees erected a wharf immediately below its entrance—on the line of the training dyke

¹ 8 George III., c. 63.

² Between that date and 1846 the following acts were passed in relation to this undertaking:—13 George III., c. 104 (1773); 24 George III., c. 59 (1784); 27 George III., c. 20 (1787); 27 George III., c. 55 (1787); 30 George III., c. 73 (1790); 39 George III., c. 71 (1799); 46

George III., c. 120 (1806); 54 George III., c. 195 (1814); 1 George IV., c. 48 (1820); 6 William IV., c. 43 (1836); 4 and 5 Victoria, c. 54 (1841); 5 Victoria, c. 41 (1842); 8 Victoria, c. 3 (1845); and 8 and 9 Victoria, c. 148 (1845).

³ 9 and 10 Victoria, c. 384 (1846).

enclosing Bowling Bay—for the use of vessels of deep draught while waiting the flowing of the tide. In 1856 they raised the training dyke to about eight feet above the level of high water, and closed in the lower end of the bay with a dyke of the same height, and greatly deepened the bay inside. A tidal basin of $8\frac{1}{2}$ acres was thus formed, which every winter is full of river steamers and other craft laid up for the season.

Renfrew has an older history. It was a burgh in the reign of King David I., who, when he founded the Abbey of Kelso about 1126-1128, gave to it a toft in the burgh, a ship and a net fishing in the river free from all custom or rent.¹ When the royal manor of Renfrew passed into the possession of the Stewards of Scotland the burgh probably passed with it, and when Walter Fitz Allan founded the Abbey of Paisley he granted to it the mill of Renfrew and a toft within the burgh. Other grants of a similar nature were made by him and by his son and grandson. On the separation of the barony of Renfrew from Lanarkshire by Robert III., the burgh of Renfrew became the head burgh of the new county, and on 10th November, 1397, the king granted it to the burgesses and community in feu farm, changing the old variable “ferms” into a fixed reddendo of eight merks yearly. His charter confirmed to the community the fishings in the Clyde, and the petty customs as well within the burgh as throughout the barony of Renfrew.² Among the charters which the burgh subsequently received from the Scottish kings were (1) one from James V. of Scotland, dated 28th June, 1542, by which he confirmed the charter of 1397;³ (2) another from King James VI., dated 5th February, 1575-6, by which he conveyed to the burgh certain lands, tenements, &c., which belonged to chaplainries, churches, and altarges within it, and erected them into a “Royal Foundation of Hospitality of Renfrew;”⁴ (3) a third charter by the same king, dated 11th August, 1614, by which he ratified to the burgh the gifts therein specified, and granted to its magistrates, councillors, and community, its common lands, with the little island or sands commonly called “Langedggrein,” which of old was part of these common lands, a right of ferry on the Clyde between Marlinford and the mouth of the Gryff (Black Cart), a free port, a harbour and haven—as Edinburgh had in Leith—fishing in the river, various specified

¹ Regis. Cart. de Kelso, I., p. 6.

³ Great Seal Register, 1513-1546, p.

² Origines Parochiales Scotiae, I., p. 75.

626, No. 2705.

⁴ *Ibid.*, 1546-1580, p. 676, No. 2511.

duties to be drawn at the harbour and applied to its repair, and a right to levy customs on the Clyde;¹ (4) a fourth charter by King Charles I., dated 28th January, 1648, by which, on a narrative of the charter of 1614, and of the fact that after its date another small island, called the "New Sands" of Renfrew, projected into the river from the island of "Langedgrein," and had been in the continuous possession of the burgh since it first appeared, the king ratified to its magistrates, &c., the right and possession of the "New Sands," which he united to the burgh.² These charters of 1397, 1575, and 1614 were confirmed in 1703 by a charter of Novodamus, granted by Queen Anne, as coming in the place of the Prince and Steward of Scotland, in favour of the magistrates, councillors, and community of the burgh.³ The town of Renfrew, which is situated about a quarter of a mile from the south bank of the Clyde, and about five miles below Glasgow, was at one time situated close to a branch of the Clyde, but in the latter part of the 17th century the river deserted this channel, and the only accommodation for shipping is in the mouth of the Pudzeoch Burn, which joins the Clyde in the burgh.

But though an old burgh, and a royal burgh, it, like many of its class, never attained importance. In the beginning of the seventeenth century it was simply a small village, whose inhabitants subsisted mainly by fishing herrings in the Clyde and selling them in Glasgow. This was its condition when, in 1602, it complained to the convention of burghs that Glasgow exacted from its inhabitants sixpence Scots [$\frac{1}{2}$ d. sterling] on each 1000 herrings which they brought to the bridge of Glasgow.⁴ And its position twenty years later had not been improved, for in 1622 its magistrates preferred a complaint to the privy council against the magistrates of Glasgow, which, as it states the then condition of the burgh, on the authority of its own magistrates, cannot be disputed. "The community," it said, "mainly consisted of seafaring men, who had no other trade and industry than that of fishing, the produce of which they brought for sale to the bridge of Glasgow, and it complained that during the years 1619, 1620, and 1621 the burgh had been heavily troubled by the magistrates of

¹ This charter, which is not now extant, was probably that referred to in the Great Seal Register, 1634-1651, p. 709, No. 1906.

² Great Seal Register (1634-1651), p. 709, No. 1906.

³ Municipal Corporations Scotland Reports (1835), Part II., p. 355.

⁴ Convention Records, I., pp. 151-161.

Glasgow," who had so oppressed it as to compel its people to leave the fishing trade. This oppression it is, however, explained consisted in Glasgow "unauthorisedly levying a tax of thirty-two shillings Scots [2s. 8d. sterling] upon every inhabitant of Renfrew who came to the bridge with herring and other kinds of fish." The gross sums so levied amounted, it is said, to £25 12s. Scots [£2 2s. 8d. sterling] on every inhabitant of Renfrew, and was the greatest taxation "that in the memory of man had been raised in Scotland, either by the king or otherwise." For payment of this tax the magistrates of Glasgow not only arrested the boats of the complainers, but poynded the fish sold by them to merchants and others, and it was plaintively pleaded that if a remedy was not provided the old burgh of Renfrew would be "overthrowne and miserablie undone." In support of this complaint the provost and two of the bailies of Renfrew appeared before the privy council on 18th June, 1622, while one of the bailies of Glasgow represented the city, and, after the parties had been heard, the privy council found that the acts of the town council of Glasgow were "well made to prevent abuse," and ordained them to remain in force. Apart from the merits of this controversy, however, the condition of Renfrew at the time, as attested by its own magistrates, shows that the burgh was wholly unable to do anything for the deepening and improvement of the river.¹ Nor has it, during the intervening two hundred and seventy-six years, contributed in the slightest degree to that result. It has, even now, a population of only about 6,000.

Any project more unreasonable than that put forward in name of Renfrew in the bill of 1897-98 can therefore scarcely be conceived. Whatsoever rights the burgh could ever have asserted over the Clyde, by virtue of its charters, was a right to fish in the river, and a right to navigate it in its natural condition—that is as it existed before Glasgow began, under parliamentary authority, the prolonged and costly improvements which have been indicated.²

Considering these rights separately it is to be observed—

¹ Privy Council Register, XII., pp. 741, 742.

² Its right of ferry over the Clyde to Yoker has been carefully safeguarded by the various Clyde Acts, with the result that, in consequence of its proximity to Glasgow, its traffic has largely increased.

The dues for the year ended 15th September, 1897, are said to have amounted to £2,101 8s. 1d., and a free revenue from that source was carried to the credit of the Common Good of the burgh of £693 19s. 7d.

(1) That the right of fishings in the Clyde, possessed by the burgh under its charters, extended on the south side of the river from Marlin Ford, four miles below Glasgow Bridge, to the Clochstane. Since the introduction of steamers, however, and the pollution of the river along its upper reaches by the vast increase of population and manufactures, these fishings have lost their value. Nevertheless, the Clyde Trustees have, under an agreement made with Renfrew on 26th October, 1832, paid the burgh upwards of £200 annually since in respect of damage to its fishings. These fishings yield a rent of only about £3 12s. 6d. per annum,

(2) That the right to navigate the river was conferred, with relation to the condition of the channel in its natural condition. But for the unsupported action of the town council of Glasgow and the Clyde Trustees in removing obstructions and deepening the channel, only small boats could ever have got above Dumbuck Ford. In these costly and protracted operations Renfrew took no part, and had neither the means to do so, nor the inducement to enter upon such an enterprise, which commercial developments alone supplied. The burgh has, up to the present time, remained wholly supine, if, indeed, the steps which it took to protect its financial interests, as regards fishing, by securing compensation for the supposed injury which the operations of the Clyde Trustees would entail upon it, must not be regarded as a waiver of any ulterior or additional claim. To propose that after Glasgow has undertaken the heavy responsibilities, by reason of which the Clyde has been made a great naval highway for shipping of the largest class, Renfrew—which never had any shipping worth mentioning—should be permitted to reap where it has never sown, was a bold attempt, the success of which would have been nothing short of a gross injustice.

With such a long and narrow artificial channel, crowded with steam ships and sailing ships passing up and down it, absolute unity of management and control is a necessity. Divided responsibility would be fatal. Yet, if the powers sought by the bill of 1897-98 had been granted, division of management and responsibility in some form, and to some extent, would have been indispensable.¹

¹ Reference may be made to the opinion expressed by the Scottish Municipal Corporations Commissioners on this subject in their report in 1835. They appear to have had under consideration the pro-

priety of uniting the Harbour and River Police with that of the city; but, recognising the “considerable difficulty which would be experienced” in connection with such a union, “by reason both of

It may be mentioned that in 1879 the town council of Renfrew promoted a bill in parliament to obtain power to borrow £20,000 to be expended on the extension and improvement of their harbour. Upon the recital that the harbour rates did not afford a sufficient security for that sum, power was sought to pledge the common good in security of it. The bill was opposed by ratepayers and others, and was rejected by a committee of the House of Commons. It appears from the burgh accounts that the town council had, as at 15th September, 1879, expended £19,585 5s. 2½d. of their corporate funds on the harbour.¹ With reference to this item the town council state, "Although this is put down in the meantime as an asset, it is problematical whether it may be recovered in full." The harbour dues for the year ending September, 1897, amounted to only £92 9s. 4d., and the total revenue of the undertaking to £168 13s. 10d. It is, moreover, noticeable that while the bill sought power to the town council to borrow £250,000 on mortgage of the harbour rates, it expressly provided that the common good, property, and assets of the burgh were to be excluded from the security for moneys borrowed under its authority.²

the separate interests created by the constitution of the harbour trust and the peculiar nature of the river police," they reported that they did not contemplate any interference with the harbour trustees, as the interests of that body are obviously so much connected with the proper management of the river and harbour that an attempt to vest that management in others would almost certainly be attended with collision and embarrassment. Nor would it be expedient, if at all practicable, to unite with the city police an establishment whose operations extend twenty-five miles down the river. [Municipal Corporations Report, p. 31]. The "collision and embarrassment" which the Commissioners deprecated as likely to result from a union of the police of the harbour

and river with that of the city could not fail to be intensified if Renfrew or any other local authority on the narrow channel of the Clyde were allowed to interfere with that absolute control over the channel which Glasgow and the Clyde Trustees have hitherto exercised.

¹ This sum included all the moneys which had from time to time been expended by the burgh on the harbour (£13,725 14s. 9d.), with accumulated interest thereon (£5,849 10s. 5½d.). A further debt of £500 was also stated to be due to a private bondholder.

² This was a somewhat peculiar provision in view of the fact that the gross annual value of the Common Good of the Burgh for the year 1897 appears to have been upwards of £4,000.

A P P E N D I X .

THE right of the burgesses and inhabitants of the city and royal burgh of Glasgow to the free use of the river Clyde—as secured to them by the charters of successive kings—was, long previous to the constitution of the burgh, enjoyed by the bishops of the see and their dependents.

A charter by King William the Lion, granted between 1175 and 1178, conferred on Bishop Joceline and his successors the privilege of having a burgh at Glasgow, with a weekly market, and all the liberties and customs of a royal burgh,¹ and when the burgh was established the burgesses simply continued to enjoy the ancient right of free passage up and down the Clyde. When the bishop was empowered, by the charter of the same king, between 1189 and 1198, to have a fair in the burgh in July of each year, all the privileges which attached to fairs throughout Scotland—including freedom of passage to and from the fair—were granted to him and his men,² and this was confirmed by his charter in 1211.³ King Alexander II. confirmed these privileges by three charters between 1224 and 1227, and ordained that all his burgesses should have his firm peace throughout his land in going and returning. He, moreover, forbade anyone to trouble or molest them or their chattels, or to do them any wrong or insult, under pain of his full forfeiture.⁴ Nevertheless Dumbarton, which had been erected into a royal burgh by the king in 1222, required the bishops, burgesses, and men of Glasgow to pay taxes to it, as a condition of being permitted to trade with or pass it. Their claim thus asserted was, however, resisted by Glasgow, and on 13th October, 1235, the king exempted the bishops and

¹ Glasgow Charters, part II., No. I., pp. 3, 4.

² *Ibid.*, No. III., p. 6.

³ Glasgow Charters, part II., No. IV., p. 7.

⁴ *Ibid.*, Nos. V., VI., VII., pp. 8, 9, 11.

their "bondmen and belongings" from payment of toll throughout his whole kingdom, as well within as without burghs, for their own goods and for all other things which they had bought for their own use; and prohibited every one from causing them annoyance, under pain of his full forfeiture.¹ In 1242-3, moreover, he conferred on the bishops and burgesses and men of Glasgow the right, throughout his whole kingdom, to buy and sell and exercise every sort of merchandise as freely—without hindrance by his bailies of Dumbarton or any others his bailies—"as the burgesses and men of Glasgow of old, most freely, quietly, fully, and honourably could do before" he caused the burgh of Dumbarton to be founded.² This protection was renewed by King Alexander III. in 1251,³ and in 1275 he required the sheriff, bailies, and provost of Dumbarton not to vex the bishop's men in the exercise of their privileges.⁴ In 1309, King Robert I., in recognition of the eminent services rendered to him by Bishop Robert, granted to the bishop his churches, lands, gear, rents, possessions, and all his goods.⁵ In 1324 he confirmed the charter by King Alexander II. of 1225,⁶ and in 1328 he confirmed that of Alexander III. of 1275.⁷ In 1449-50 King James II.—on a complaint by the bishop that the bailies, burgesses, and communities of the burghs of Renfrew and Rutherglen disturbed and impeded the lieges and communities, both "of burgh and land," who brought goods to the market of Glasgow, to the hurt and prejudice of the privilege and custom granted to his predecessors of old—prohibited all such disturbance, and required that "notwithstanding any letters which might have been obtained from his predecessors by Renfrew, Rutherglen, or any other burgh to the contrary," no one should come within the barony of Glasgow, nor within any lands included in St. Mungo's freedom, to take toll or custom, by water or by land, of any person going to or from the market of Glasgow.⁸ In 1450 the same king—then a canon of the cathedral—erected the city and barony of Glasgow and the lands of Bishopforest into a regality, thus conferring upon it the highest rights and jurisdictions, under reservation only of those appertaining to the four

¹ Glasgow Charters, part II., No. IX., p. 13.

² *Ibid.*, No. X., p. 14.

³ *Ibid.*, No. XI., p. 16.

⁴ *Ibid.*, No. XII., p. 17.

⁵ Glasgow Charters, part II., No. XV., p. 21.

⁶ *Ibid.*, No. XVI., p. 23.

⁷ *Ibid.*, No. XVII., p. 24.

⁸ *Ibid.*, No. XX., p. 27.

pleas of the crown, viz.:—robbery, rape, fire-raising, and murder.¹ In 1450-1, again he renewed his charter of 1450.²

In 1469, Dumbarton sought, in the exercise of what it claimed to be its charter rights, to prevent Glasgow from purchasing wine from a French ship in the Clyde, whereupon the bishop and the magistrates of the city complained to the Lords Auditors of Causes and Complaints, and obtained decree to the effect that the action of Dumbarton was a violation of the complainers' freedom and old infeftment "grantit to thaim be oure souverain lordis predecessouris of lang tyme of before." Dumbarton was accordingly ordained to "desist and cesse of sic wrangwise stoppin and impediment makin in tyme to cum, and to be punyst for the said injure done be thaim of before at the wil of our souverain lorde."³ This decree was ratified by King James III. in 1479,⁴ and by Parliament in 1633.⁴

In 1476, King James III., by authority and with consent of Parliament, confirmed to bishop John and his successors their right to have and hold the city and barony of Glasgow and the lands of Bishopforest in free regality as one barony, with all and sundry gifts, grants, and foundations made by previous sovereigns and all other persons to the bishops and prelates of the see.⁵ In 1489-90, King James IV—himself a canon of the cathedral—confirmed to bishop Robert all the gifts, grants, foundations, and infeftments made to the church and see, and to its bishops and prelates by his predecessors or others, with all the liberties, privileges, and commodities of which they were in the enjoyment, as well within burghs and towns as outwith the same. Farther, if the city were not previously in possession of a free tron, he granted to the bishop and his successors the right to have one in the city for ever, and to appoint a troner of the customs and a clerk of the cocket, so that all merchandise and goods belonging to the citizens and tenants of the city and barony might be there tronned, weighed, and customed. The customs of such merchandise and goods he appointed to belong to the bishop and his successors, and he declared that the citizens and tenants who paid such customs should be thereafter free from payment of other customs on their goods in all other towns, ports, and places. By the same charter he also exempted the bishop

¹ Glasgow Charters, Part II., No. XXI., p. 28.

² *Ibid.*, No. XXIII., p. 36.
Ibid., No. XXIX., p. 54.

³ *Ibid.*, No. XXXIV., p. 71.

⁴ 1633, c. 79; Acts of Parliament, V., p. 88.

⁵ Glasgow Charters, No. XXXII., p. 60.

and his successors from payment of any custom on such goods and merchandise as they might send to ports beyond sea on their proper venture, for the buying of victuals, wine, wax, spiceries, or any other things needful to them, or for the payment of their debts, or for any other necessary and proper causes.¹ In 1491-2, the same king granted to the provost and bailies a license to use and occupy their freedom as they had previously enjoyed it.²

In 1542, however, Rutherglen and Renfrew appear to have offered obstruction to the bringing in of goods to the market of Glasgow, and complaint of this was made by the magistrates, with the result that these burghs were ordained to cease from such interference.³ Nevertheless, the burghs appear to have continued or revived their interference, and in 1580-1 King James VI. issued two precepts under his privy seal prohibiting them from troubling the lieges coming with merchandise to the city.⁴ The decree of 1542 was confirmed by King James VI. on 8th July, 1596.⁵

Meanwhile important changes were taking place in Scotland. The doctrines of the Reformation had been accepted by a number of the burghs, and were openly avowed by many influential nobles and persons of influence. The position of the prelates and beneficed persons of the old faith was in consequence becoming precarious, and even before the Reformation was recognised by the Estates, the necessity on the part of these dignitaries to fortify their tenure of their benefices induced them so to ally themselves with powerful secular nobles as to secure their support in the struggle which was becoming inevitable. With this view, in 1557, James Beaton, archbishop of Glasgow, with the advice of his chapter, appointed James duke of Chatelherault, earl of Arran, lord Hamilton, and his heirs, to be his bailies of the lands, barony, and regality of Glasgow for a period of nineteen years, and in 1557-8 the duke, in accordance with the practice of those troublous times, granted the archbishop a bond of maintenance, by which he undertook to protect the see in all its rights and privileges.⁶ But the trust thus reposed in the duke proved unavailing. When the storm burst, Chatelherault professed the reformed doctrine, and the archbishop fled to France,

¹ Glasgow Charters, Part II., No. XXXVII., p. 79.

² *Ibid.*, No. XXXIX., p. 88.

³ *Ibid.*, No. XLIX., p. 117.

⁴ Glasgow Charters, Part II., No. LXXI., p. 189.

⁵ *Ibid.*, No. LXXXIV., p. 247.

⁶ *Ibid.*, No. LVI., p. 125.

taking with him the muniments of the see. When, therefore, the time arrived for appointing the magistrates of the burgh in 1561, neither the archbishop nor any one holding his authority could be found to nominate the new magistrates, and they were accordingly appointed without such nomination.¹

Subsequently, in 1587, an act of Parliament annexed to the crown all lands and other properties which then belonged to any ecclesiastical or beneficed person, with certain enumerated exceptions. These exceptions included (1) the principal castles, fortalices, houses and mansions of archbishops, bishops, &c., which were appointed to remain with them and their successors for their residence notwithstanding the annexation; (2) all lands, profits, annual rents, and commodities, previously granted to hospitals or *maisondieus* within Scotland or for the poor; and (3) all pensions granted out of the annexed lands either by prelates and ecclesiastical persons or by the king. Further, the act declared (*a*) that all burghs of regality and barony should retain the same freedom and liberty as they possessed before the annexation, but should be held in future of the king, in the same manner and subject to the same conditions as they had formerly been held of their ecclesiastical superiors; and (*b*) that where, in lands, baronies, and regalities which previously belonged to archbishops, bishops, &c., heritable bailies and stewards existed, such offices should continue to be held as heretofore, but only of the king as superior.²

Thus vested in what had been the possessions of the church, the king in the same year, by a charter under the great seal, conveyed the lands and barony of Glasgow and other lands and duties which had previously belonged to the archbishops, to Walter Stewart, commendator of Blantyre, and his heirs and assignees in feu, with the offices of bailiary and justiciary of the regality, subject to certain specified exceptions. By this charter the commendator was authorised to retain, out of the first and readiest revenues specified, £200 yearly of fee for exercising the offices of bailiary and justiciary, and was empowered to set in feu-farm the lands and baronies thus conveyed to him, or any part thereof, to the ancient and native tenants, to be held of him and his successors in the lordship. The feu duty payable under this charter by the commendator and his heirs

¹Glasgow Charters, Part II., No. LVII., p. 126. the Parliament of Scotland, III., p. 431.

²*Ibid.*, No. LXXIV., p. 192; Acts of

and successors was declared to be £500, with a duplication on the entry of heirs and assignees.¹ This charter was confirmed by the king on 26th August, 1591, after he had attained majority.²

At this time the condition of the Clyde was such that vessels coming from foreign countries could not get further up the river than Dumbarton. It became desirable, therefore, that an arrangement should be made between that burgh and Glasgow, under which the inhabitants of the latter should participate in the advantage derivable from imported goods. Accordingly, an indenture was entered into between these two burghs at Renfrew in 1590, under which it was agreed that whenever ships or vessels arrived in the Clyde, or other waters or "lowes" [lochs] in the west sea, with merchandise of foreign countries, Dumbarton should immediately intimate the fact to Glasgow, which should forthwith appoint merchants to proceed there, and, along with merchants appointed by Dumbarton, buy the merchandise for the equal benefit of both burghs. With a view, moreover, to the future maintenance of "unity and concord" between them, both became bound to help and defend the rights and freedoms each of the other. In the event of any dispute afterwards arising between them as to their respective privileges and freedoms, it was agreed that each should appoint six discreet persons, to meet in Renfrew and adjust all differences, and punish the "discord makers." In the event of either burgh failing to observe the agreement, it was to forfeit £100 Scots—£40 of which were to be paid to the king, £20 to the kirk work of the Laigh kirk of Glasgow, and £40 to the burgh which did not break the agreement. Renfrew had no part in the arrangement—doubtless because its interests were not considered to be affected as were those of the more important burghs of Glasgow and Dumbarton. And being so uninterested, it was selected as the place of common negotiation.³

Previous to 1593 important changes had taken place. The commondator had resigned his rights to the archbishopric, and Ludovic duke of Lennox was in high favour with the king, who, on 21st July of that year, under the authority of an act of Parliament, granted to the duke, for his lifetime, the right of superiority of the whole temporal lands of the

¹ Glasgow Charters, Part II., No. LXXVIII., p. 215.

² *Ibid.*, No. LXXX., p. 227.

³ Glasgow Charters, Part II., No. LXXIX., p. 225.

archbishopric, with power to receive resignations and grant entries to vassals, free tenants, and heritable feuars.¹

But before January, 1595-6, the duke also resigned the rights thus conferred, and on the 2nd of that month the king, by a charter under his privy seal, confirmed to several feuars of the archbishopric feu rights which they had obtained from the commendator.²

In June, 1598, an act of Parliament restored archbishop Beaton to all the heritages, honours, dignities, benefices, offices, and possessions which had belonged to him. This restoration was made in consideration of the services which he had rendered to queen Mary and to the king, as their ambassador to France, and for the benefit of Scotland, and in accordance with the king's promise in response to the suits of divers foreign kings and princes.³ That act was ratified by another in November, 1600, and ordained to have full strength and effect in favour of the archbishop without limitation or restriction, notwithstanding he had never acknowledged the reformed religion. His restoration was, however, declared to be without prejudice not only to such feus of the temporal lands of the archbishopric as had been lawfully granted, but also (1) of the stipends lawfully assigned to ministers furth of the archbishopric, and (2) of the rents and duties belonging to the college. From the restitution were also specially excepted the castle of Glasgow and the right to choose the provost and bailies of the city.⁴ These were conveyed by the king to the duke of Lennox under the great seal, on 17th November, 1600.⁵

On 19th June, 1600, the Convention of Burghs permitted Dumbarton to apply to the Privy Council for authority to levy an impost for seven years, to be employed in preserving the burgh from inundation by the rivers about the town. The requisite application was thereupon made, and in September the Privy Council ordered a gift to be expedited under the privy seal authorising an impost to be levied, but only within the liberties of the burgh, and without prejudice to the liberty of the Clyde claimed by Glasgow and Dumbarton jointly. That claim was referred to the convention at its meeting in the following November, with

¹ Glasgow Charters, Part II., p. 454;
Acts of Parliament, IV., p. 33.

LXXXVI., p. 250; Acts of Parliament,
IV., p. 256.

² Glasgow Charters, Part II., p. 456.

³ Glasgow Charters, Part II., No.

³ Acts of Parliament, IV., p. 169.

LXXXVII., p. 252.

⁴ Glasgow Charters, Part II., No.

instructions to explain its previous act and the liberties of Dumbarton. Meanwhile, and till the convention should pronounce its deliverance, Dumbarton was prohibited from uplifting the impost.¹ In November, accordingly, the convention had the subject under consideration, but found that without further information it could not explain the liberties of Dumbarton, Glasgow, and Renfrew respectively. It, however, declared that its act of June did not intend that Dumbarton should uplift the impost on the Clyde, but only on the water of the Leven, and stated that the declaration was made without prejudice to the liberties on the river of any of the three burghs as these liberties existed previous to the granting of the impost.²

In April, 1603, the king granted another charter, under the great seal, in which, after referring to his connection with the family of Lennox, and to the fact of the lands, lordships, baronies, bailiary, regality, and archbishopric of Glasgow being in his hands by reason of the act of Parliament, 1587, c. 8, he disposed in feu to duke Ludovic and his heirs in the estate of Lennox the lands and barony of Glasgow, the castle, city, burgh, and regality, and various other lands—constituting the duke and his heirs heritable bailies of the regality, and erecting the lands and barony into a temporal lordship and regality, to be called the lordship of Glasgow, and held of the crown in feu for payment of the several duties therein specified.³

In September, 1605, a letter superscribed by the king and subscribed by the duke of Lennox, authorised Glasgow to have the free election of its magistrates,⁴ and was registered in the books of the Privy Council on 4th November, 1605.⁵ The obvious intention was to have this privilege confirmed by Parliament in its next session, and the draft of an act granting full liberty to the city to elect its magistrates yearly, as freely as any other city or burgh within the kingdom, and declaring that the approbation neither of the archbishop nor of any other subject should be

¹Glasgow Charters, Part II., No. LXXXV., p. 248; Privy Council Register, Acta 1598-1601, p. 395; ratified by Parliament, 1633, c. 79; Acts of Parliament, V., p. 88.

²Glasgow Charters, Part II., p. 458; Printed Records of Convention, II., pp. 94, 95.

³Great Seal Register, VI., No. 1,457;

Glasgow Charters, No. LXXXVIII., p. 258. A charter in similar terms, dated 21st February, 1603, is registered in the Privy Seal Register, vol. LXXIII. (1602-3), fol. 265.

⁴Glasgow Charters, Part II., No. LXXXIX., p. 269.

⁵Privy Council Register, vol. VII., p. 141.

requisite, was superscribed by the king, and on 7th July, 1606, remitted to the next session of Parliament.¹ The privilege thus intended to be conferred upon the city was, however, not granted till long afterwards, and on 1st October and 28th November, 1606, the king directly interfered with these elections.

On 11th July, 1606, the estate of bishops was restored by an act of the Estates, which abrogated the statute 1587, c. 3, and declared that the persons then provided to bishoprics, or who might afterwards be provided to them, should possess the honours, privileges, and prerogatives competent to bishops or their estate since the reformation, in the same way as if the act of 1587 had never been passed. But the bishops were taken bound to provide for the ministers serving the cure of the kirks of their bishoprics.² This act was, however, rescinded by the statute 1640, c. 20.³

On 8th April, 1611, king James granted the charter to which reference is made in the text.⁴ By it he confirmed all the rights and privileges previously granted to Glasgow, and disposed to the provost, bailies, councillors, and community, and their successors in feu-farm the burgh and city, which he erected into a royal burgh, with all the liberties and privileges belonging thereto—to be held of the crown for service of burgh used and wont, and payment to the archbishop of sixteen merks (17s. 9d. sterling). The right of the archbishop to elect the magistrates as then observed was, however, continued.⁵

In consideration, *inter alia*, of the expense which Glasgow had incurred in making the Clyde navigable, Parliament, on 28th June, 1633, confirmed to the provost, bailies, councillors, and community all the charters and other writs granted in their favour, without prejudice to the rights of James duke of Lennox and his successors in their office of bailiary and justiciary, and to those of the archbishop and his successors in regard to the election and nomination of the magistrates.⁶

¹ Original in the Archives of the City. Glasgow Charters, Part II., No. XC., p. 271.

² Act of Parliament, IV., p. 281; Glasgow Charters, Part II., No. XCI. p. 272.

³ Acts of Parliament, V., p. 278.

⁴ P. 5.

⁵ Great Seal Register, VII., No. 462; Glasgow Charters, Part II., No. XCII.,

p. 278. This charter was ratified by the statutes 1612, c. 18, and 1633, c. 79. Acts of Parliament, IV., p. 484, and V., p. 88; Glasgow Charters, Part II., No. XCIII., p. 284.

⁶ 1633, c. 79; Acts of Parliament, V., pp. 87 to 89; Glasgow Charters, Part II., CVL., p. 351.

On 16th October, 1636, king Charles I. granted the charter, to which also reference is made in the text.¹ By it, after reciting, *inter alia*, the high antiquity of the burgh and the advantages conferred on his kingdom by its foreign trade and navigation; the large proportion borne by it of the burdens imposed on burghs for meeting the public expenses of the kingdom; the fact of its being the chief and most worthy burgh in the western parts of the kingdom; and the great charges and expenses which the magistrates and community had incurred in rendering the Clyde navigable for ships, boats, and vessels—he confirmed all the previous charters in favour of the burgh; the liberty and use which it and its magistrates had of electing a water bailie, to have jurisdiction over the Clyde where the sea ebbs and flows from the bridge of Glasgow to the Cloch stane, for the correction of all injuries and enormities committed upon it within these bounds. Of new, also, he granted to the magistrates and councillors, *inter alia*, his burgh and city, the fishings of salmon and other fishings on the Clyde, the liberty of the river on both sides from the bridge to the Cloch stane, and likewise the liberty and immunity of ship stations, that is of the roads of Inchgreen, Newark, Pot of the Rig, and other stations of ships between the bridge of Glasgow and the Cloch stane, for loading and unloading merchandise and goods belonging to the burgh. He further, and without prejudice to former rights, of new erected and incorporated his burgh into a free royal burgh, with the various powers therein set forth; and constituted the provost and bailies justices of the peace within the burgh and its whole territories and liberties, and within the harbours of Inchgreen, Newark, and Pot of the Rig, and empowered the burgesses and inhabitants to build ports and roadsteads, bulwarks and jetty heads, to render the river more navigable between Glasgow bridge and the Cloch stane, and for receiving ships, boats, and vessels within the bounds of the river as far as the spring tide flows.²

¹ Pp. 8, 9.

² Great Seal Register, vol. IX., No. 601; Glasgow Charters, Part II., No. CX., p. 375. Ratified by the Acts of

Parliament, 1641, c. 225; 1661, c. 235; and 1669, c. 108. Acts of Parliament, V., p. 473, and VII., pp. 220, 650.

THE CLYDE LIGHTHOUSES TRUST.

This Trust is under the administration of twenty trustees, appointed in terms of the Clyde Lighthouses Act, 1871.¹ These are—the Lord Provost of Glasgow, the Provosts of Greenock and Port-Glasgow, and Sir Michael Shaw Stewart; six are elected for Glasgow, three for Greenock, and two for Port-Glasgow. The remaining five are elected by the following public bodies:—one by the Merchants' House of Glasgow, two by the Chamber of Commerce of Glasgow, and two by the Chamber of Commerce of Greenock.

The first act incorporating the trust was passed in 1754-5,² and empowered the Earl of Eglington to feu out two acres of land in the south-west end of Little Cumray as a site for a lighthouse and a wharf at which to land coals to be burned in it. The feu contract was appointed to be taken in favour of Lord Eglington, Lord Cathcart, and John Stewart Shaw, of Greenock, and their respective heirs male, the provost, bailies, dean of guild, and convener of the city of Glasgow; the provost, bailies, dean of guild, and convener of the city who held these offices immediately before the existing holders; the two bailies of the town of Greenock; and the bailie of Port-Glasgow—these several persons being, by the act, appointed commissioners or trustees for executing it. After the lighthouse was erected, the commissioners were authorised to levy tonnage dues from all vessels passing it; and they were empowered to borrow £500 on the security of the dues to meet the expenses of the act and the several works.

The trustees were also empowered to remove shoals and flats in the Firth of Clyde, and to erect such beacons, buoys, and land or sea marks on any places in the firth as would render the navigation more safe and commodious.

When the lighthouse was established it was supplied by a fire light, but that has long since been superseded by a first-class stone lighthouse, with all modern improvements.

¹ 34 and 35 Victoria, c. 132.

² 29 George II., c. 20.

First-class stone lighthouses were also erected by the trustees at Toward Point, below Dunoon, and at the Cloch, below Gourrock, and lights, beacons, buoys, and land or sea marks at other places on the river and firth. The navigation below and above the harbour of Greenock was also improved by the removal of shoals and flats.

In 1871 another act was passed,¹ by which, on a narrative of acts obtained since 1754-5 by the Clyde Trustees and the Greenock Harbour Trustees, and the circumstances therein set forth, the trustees appointed by the act of 1754-5 were appointed to go out of office on 1st December, 1871, and a new body of trustees to succeed them. This new body was to consist of eleven "elective trustees," five appointed trustees, three *ex officio* trustees, and Sir Michael Robert Shaw Stewart, of Greenock and Blackhall, Baronet, and his heirs male in the estate of Greenock—20 in all. The "elective trustees" were appointed to consist of six persons elected by and from among the ratepayers qualified and registered as therein provided as electors for the city of Glasgow; three persons elected by and from among the ratepayers qualified and registered as therein provided for the town of Greenock; and two persons similarly elected for the town of Port-Glasgow. The "appointed trustees" were to consist of one person appointed by the Merchants' House of Glasgow, two to be appointed by the Chamber of Commerce and Manufactures of Glasgow, and two by the Chamber of Commerce and Manufactures of Greenock. The *ex-officio* trustees were to consist of the Chairman of the Trustees of the Clyde Navigation, the Chairman of the Trustees of the Port and Harbour of Greenock, and the Chairman of the Trustees of Port-Glasgow Harbour. By this act the trustees were authorised to exercise all the powers of the act of 1754-5, and to maintain existing and erect new lighthouses and beacons; to levy the rates therein specified and to apply them as therein provided; to borrow not exceeding £15,000, of which certain sums should be applicable to specified objects.

In 1880 a third act was obtained,² by which, on a recital that the trustees were improving the channel of the river in the vicinity of Garvel Point, by straightening, widening, and deepening the navigable waterway, they were empowered, in continuation of these improvements, to alter, widen, and deepen the navigable waterway eastward and westward. The limits of the act were defined. New rates were substituted for those

¹ 34 and 35 Victoria, c. 132.

² 43 and 44 Victoria, c. 137.

authorised by the act of 1871. The powers to borrow money were extended to £80,000.

In 1884 a fourth act was obtained,¹ by which the borrowing power of the trustees was extended to £130,000.

And in 1890 a fifth act was obtained,² by which the period limited by the act of 1880 within which the works by that act authorised were to be completed and lands purchased, was extended till 6th August, 1895.

Under the powers thus conferred a light ship is stationed at Garvel Point, above Greenock, two light towers have been erected at Port-Glasgow, and beacons and buoys have been put down where required about the firth. Several of the beacons and many of the buoys are lighted with Pintsch's patent compressed oil gas. The trustees possess a steam tender provided with gas receivers for conveying the gas required by the various lighthouses, light towers, the light ship, and the lighted beacons and buoys. For use during foggy weather the Cumbræ lighthouse is provided with a fog horn, the Cloch with a syren, and Toward and several of the buoys with bells.

The principal work which the trustees have carried out for the improvement of the river has been the dredging of a channel on improved lines, 23 feet deep at low water, from the Tail of the Bank, opposite Albert Harbour, Greenock, to the Clyde Trustees' boundary line at Port-Glasgow. The work was begun in 1873, under the powers of an Act obtained in 1871,³ and was carried on with hired plant till 1880, when the trustees resolved to push on more expeditiously, and got plant of their own.⁴

¹ 47 Victoria, c. 10.

² 53 Victoria, c. 7.

³ The Clyde Lighthouses Act, 1871, 34 and 35 Victoria, c. 132.

⁴ See paper by Mr. Charles A. Steven-

son, C.E., "On the Dredging of the Lower Estuary of the Clyde," in Proceedings of Institution of Mechanical Engineers, Edinburgh Meeting, August, 1887.

THE CLYDE PILOT BOARD.

By section 57 of the Act 6 George IV., cap. 117, passed in 1825, the lord provost and the eldest merchant bailie of Glasgow, the dean of guild and the deacon-convener of the trades of the city, the bailie of the river and firth of Clyde, the two bailies of Greenock, and the two bailies of Port-Glasgow and Newark, with five merchants interested in the shipping and navigation of the river, whom the Clyde Trustees were authorised or required to appoint annually in October—any three being a quorum—were empowered from time to time, and after due enquiry, to license pilots employed in the navigation of the river trading to and from the harbour of the Broomielaw, and to regulate the fares and wages, conduct and behaviour of such pilots, and to enforce observance of such rules and regulations as might be made by them by pecuniary penalties, besides deprivation temporary or permanent. Persons who acted as pilots of any ship or vessel between the harbour of Port-Glasgow and the harbour of the Broomielaw, other than the crew or pilots licensed as above, or duly licensed under similar authority at Greenock, or pilots or persons employed in the navigation of vessels to and from the harbour of Dumbarton and the river Leven, were subject to a penalty of £5 sterling for each transgression.

Section 28 of the Act 9 Victoria, cap. 23, prohibited, under a penalty of £5 for each offence, all persons from navigating or piloting any ship or vessel of upwards of sixty tons burden between the harbours of Port-Glasgow and Broomielaw other than pilots licensed by the Pilot Board at Glasgow, constituted as above.

The Clyde Navigation Consolidation Act of 1858,¹ on the narrative that it is expedient that only one authority should exist for licensing pilots for the safe conduct and navigation of vessels in the River and Firth of Clyde, enacted that, from and after 1st January, 1859, a Board for licensing and regulating pilots for navigating vessels plying in the river and firth, within a straight line drawn due east and west from the

¹ 21 and 22 Victoria, c. 149.

southmost point of the island of Little Cumbrae, should be appointed. That board, consisting of sixteen members, is constituted by the appointment annually in November of eight persons elected by the Clyde Trustees (of whom the Lord Provost of Glasgow is one), of five by the Harbour Trustees of Greenock (of whom the Provost of Greenock is one), and the Provosts of Port-Glasgow, Dumbarton, and Rothesay. The board so elected is declared to be a pilotage authority within the meaning of the Merchant Shipping Act, 1854,¹ and all the powers conferred by that act on pilotage authorities are vested in the board for the purposes of the act of 1858. It is also required to make such bye-laws and regulations as it may consider necessary for the several purposes therein specified.

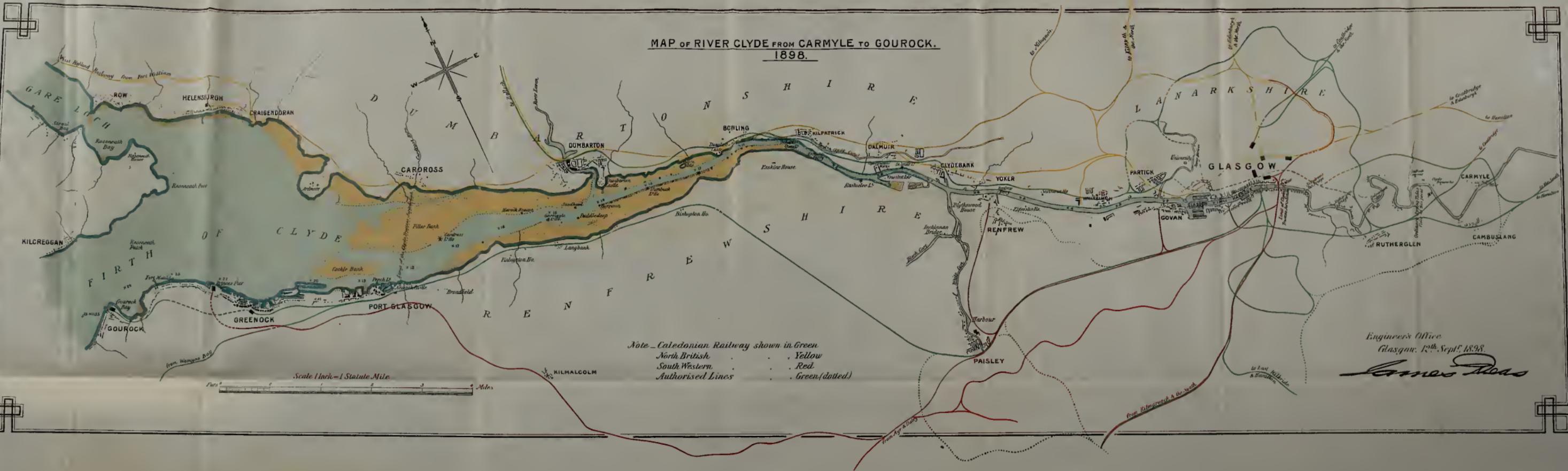
The powers thus conferred were supplemented by the Clyde Navigation Act of 1887, which empowered the board to require the proprietors or lessees of any harbours, piers, quays, or wharfs at the several places mentioned in the schedule to the act to erect, in or near to such harbours, &c., such signalling apparatus as should be mutually approved of by it, and such proprietors or lessees, or by the Board of Trade in case of difference of opinion. In the event of such signalling apparatus not being erected and fitted up by the proprietors or lessees for a month after the Pilot Board had requested them to do so, or within a month after the sanction of the Board of Trade had been given, the Pilot Board was empowered to execute the necessary works, and the cost of such erection, and of the application to the Board of Trade, and also of the future maintenance of the works, was made a charge on such proprietors and lessees. The Pilot Board was also empowered to make bye-laws for the regulation of the working and management of the signalling apparatus, and the observance of them by masters of steam vessels, and to alter or repeal such bye-laws. These, however, had to be confirmed by the Board of Trade before coming into operation.

In 1890 the River Pilots were empowered² to elect three of their number to be members of the Pilot Board, which was thus increased in number to nineteen.

¹ Now the Merchant Shipping Act, 1894.

² By the Pilotage Order Confirmation (No. 1) Act, 1890.

MAP OF RIVER CLYDE FROM CARMYLE TO GOUROCK.
1898.



Note - Caledonian Railway shown in Green
 North British Yellow
 South Western Red
 Authorised Lines Green (dotted)

Engineers Office
 Glasgow, 12th Sept. 1898.
James Ross

