"THE Salt Trade", wrote John Holt in the mid-nineties of the eighteenth century, "is generally acknowledged to have been the Nursing Mother and to have contributed more to the first rise, gradual increase, and present flourishing state of the Town of Liverpool, than any other Article of Commerce". (1) Such a definite statement, purporting to convey the consensus of informed opinion in Liverpool at the end of the eighteenth century, not much more than a hundred years after the port's "first rise", deserves further investigation. This paper sets out to trace the growing interrelationship between Liverpool, the Cheshire wiches and the south-western fringe of the Lancashire coalfield, the source of the salt boilers' fuel, and attempts to assess the importance of salt as a factor in the growth of Liverpool.

I

Early in the seventeenth century the Cheshire salt wiches still retained their long tradition of ordered restraint and gentlemanly calm. The home market for salt was not very extensive and much of the limited requirements of the country were met, not by the inland wiches but by the saltworks around the coast, those at the mouth of the Tyne producing, on the testimony of a Cheshire man, "more salt than any part of England that I know". (2) In these circumstances the Cheshire brinemen were careful to stint their output by regulating the number of pans they employed and by confining work to a few days a year, usually in two spells, in the spring and towards Michaelmas. This enabled the salters to journey to the wiches for their supplies in the drier weather, when the roads were more passable. (3)

Even by 1600, however, there were signs that the old order was breaking down. Coal, the herald of change, was replacing wood as fuel at the saltworks, and this transition may have been connected with the substitution of iron for lead pans, which, Dr. Jack-

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(3) For the Cheshire salt industry, see H. J. Hewitt, Mediaeval Cheshire, Chetham Society, Vol. 88, N.S., 1929, particularly chapter 7, and Edward Hughes, Studies in Administration and Finance 1558-1825 (Manchester 1934), chapters 1 and 2. For the routes along which salt was removed, see William Bunting Crump, "Saltways From the Cheshire Wiches", Transactions of the Lancashire and Cheshire Antiquarian Society, Vol. LIV (1939), pp. 84-142.
son reported from Nantwich in 1669, had occurred “in the memory of many alive”. (1) There are indications, of which the strongest is the apparent absence of burghal restraint, that these progressive changes were more marked at Northwich than at Nantwich. (2) Northwich was already the largest centre of production in Leland’s day, and in the following century and a half it seems to have increased its lead. By 1682 the salt pans at Northwich could produce 12,214 bushels per week, compared with 4,300 at Middlewich and 4,200 at Nantwich. (3) Despite the contention of the Middlewich and Nantwich boilers that their advantages in cheaper transport costs for coal outweighed Northwich’s greater proximity to the Mersey and permitted the brinemen from all districts to lay down their salt at Frodsham Bridge “upon an equal foot”, (4) it seems highly probable that this early progress in the Northwich district at the expense of the otherwiches was the outcome of an increasing number of salt shipments down the Mersey. This is, indeed, implied by the complaint of the more distant brine interests that Northwich was able to impose its own price on salt as a result of “the Navigation from Frodsham Bridge outwards”. (5) It would appear therefore that the salt traffic from Northwich overland to Frodsham Bridge and down the Mersey was already growing by about 1670 when this improvement in the mouth of the Weaver was, in all probability, effected. It may even have been this stimulus which encouraged William Marbury in that year to prospect for coal in his estate at Marbury near Great Budworth. This operation was momentous, for instead of striking coal, he unearthed a deposit of rock salt. (6)

This unexpected discovery was a sad blow to the Cheshire brine interest, for rock salt could be removed from the saltfield to be

(1) Philosophical Transactions (Royal Society) No. 53, 15 November, 1669, p. 1065.

Hughes, op. cit., pp. 29–30.

(3) John Collins, Salt and Fishery (London 1682), p. 3.

(4) This argument is advanced in Reasons Against the Bill for Making of the River Weaver Navigable (n.d.), B.M. Add. MSS. 36914, fo. 117–8.

(5) Considerations concerning a project to make the River Weaver in Cheshire Navigable from Frodsham Bridge to Northwich (Add. MSS. 36914, fo. 94 seq.). The writer claimed that Northwich had been able to impose its own price on salt “as formerly (by the Navigation from Frodsham Bridge outwards only which began about thirty years since) she did till the erection of the new works reduced the price from above four shillings to two and sixpence p. Barrel”. He went on to mention 120 lb. as the weight equivalent of a bushel of rock salt thereby dating the document sometime before the middle of 1698 when the weight equivalent was reduced to 75 lb. (see below p. 90). The writer was therefore referring to the 1660s. A Bill “for making navigable the Rivers of Mersey and Weaver, with the rivulets running into the same” had been introduced into the Commons in 1663, but it had failed to pass, possibly on account of the opposition of Liverpool (T. S. Willan, The Navigation of the River Weaver in the Eighteenth Century, Chetham Society, Vol. III, 3rd ser., 1951, p. 2). Possibly “Navigation” here means the dredging of the tidal estuary of the Weaver to permit the passage of heavier vessels. If this is so, the promoters of a second Bill, “for making the River of Weaver navigable”, introduced in 1670, may have wished to continue the process of improvement farther upstream. But this Bill also failed (Willan, op. cit., p. 2).

(6) On 12 November, 1670, Adam Martindale, the Puritan divine, then one of the ejected clergy living quietly in Cheshire, informed the Royal Society that he had been told of the discovery of rock salt. On 26 November he wrote again, having visited Marbury himself. “The Rock of Salt, by the relation of the Work-men is between 33 and 34 yards distant from the Surface of the Earth; about 30 whereof are already digged and they hope to be at the Flagg, which covers the Salt-rock, about three weeks hence. . . . The first discoverer of it was one John Jackson of Halton, about Lady-day last, as he was searching for Coals on the behalf of the Lord of the Soil, William Marbury of Marbury Esquire.” Philosophical Transactions No. 66, 12 December 1670, pp. 2015–7. On 7 January 1670/1 Martindale reported that the workmen had bored three yards into the seam. Thomas Birch, History of the Royal Society (London 1756–7), Vol. II, sub 26 January 1670/1.
FIG. 7: COMMUNICATIONS BETWEEN THE COAL FIELD, THE SALT MINES AND LIVERPOOL.
Drawn by John Williams.
refined into white salt elsewhere. After 1670 Cheshire lived under the threat of becoming more and more a source of the raw material rather than a purveyor of the manufactured product. For Liverpool, on the other hand, the discovery at Marbury was to prove a great boon. The newly-found deposit was "of the nature of strong sea-salt without any sal nitre or alum in it; good to season such things with as need very strong salt". (1) It was, in fact, an excellent substitute for the French salt which the refiners of Bristol and the West Country had been in the habit of importing. In consequence, a steady coastwise trade in rock salt developed from Liverpool. (2)

White salt could be manufactured much more cheaply from rock salt than from brine, because refiners could save themselves some of the all-important expense incurred in transporting fuel. The brinemen at Northwich, for instance, had to pay for the carriage of coal from the pits down to the Mersey, across to Frodsham Bridge and up the Weaver valley to the saltworks as well as for the carriage of the finished white salt down to Frodsham Bridge. A refinery of rock salt, however, could be established at some intermediate place on or near the Mersey where the loads of coal from Lancashire met the consignments of rock salt from Cheshire. Coal at the pithead sold for about 3/- a ton. (3) The packhorse journey (4) to Hale added 3/- to the cost, the river crossing 1/10 and the last stage a further 4/- up to the nearest of the saltworks near Winnington Bridge. (5) It thus cost twice as much to convey the coal from colliery to saltworks as it had done to raise it out of the ground. The refiner on the Mersey was able to save himself half of this burdensome transport charge.

There is no evidence, however, that any refineries were built on or near the Mersey until the 1690s. It was June 1696 before Jonathan and John Blackburne were petitioning the Liverpool Common Council for permission to build a shed, keeling house and quay "near the intended saltworks" and were allowed to "lay a Cisterne of sixteen yards square upon the southmost to the Sea opposite to the Buildings. (6) A rock salt company, said to have been started at Frodsham before 1694, was ready to declare a dividend in 1695, (7) which suggests that the refinery was then of recent origin. We first hear of the Dungeon saltworks, with which

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(1) Birch, op. cit., Vol. II, sub 2 February 1670/1.
(2) Thomas Johnson wrote to Richard Norris on 18 December, 1697: "Bristol and all the West of England before the Rock was found refined French Salt for the use of the Country now they refine all Rocke and are much Improved and Increased in that trade." Norris Papers at the Picton Library, Liverpool, 2/135.
(5) Note pinned to letter dated 29 August, 1699 (Add. MSS. 36914).
(6) Liverpool Town Books (at the Municipal Buildings, Liverpool), 3 June, 29 June, 1696. There was an earlier salt house in Liverpool to which Sir Edward Moore referred in some undated notes as "the ould Salt House or Store House". (Sir Edward Moore, Liverpool in King Charles the Second's Time, ed. William Fergusson Irvine, Liverpool, 1899, p. 18n.) We assume from this description that this earlier salt house was a place for storing salt and not a works for boiling it from sea water.
Thomas Johnson, appears to have been closely associated,\(^{(1)}\) in 1697.\(^{(2)}\) It seems likely, therefore, that more than twenty years were allowed to elapse after the discovery at Marbury before the opportunity was taken to build refineries in order to provide Liverpool with a second source of white salt. This time-lag, curious in view of the considerable returns which refining promised, may possibly have two explanations.

Although rock salt was discovered in 1670, there is no evidence that it was immediately mined intensively. That William Marbury later obtained a patent for “making salt and drawing water out of brine pits”\(^{(3)}\) certainly suggests that he preferred to boil his own salt. He probably played down the rock salt side of his business, except in cases where the new product replaced foreign salt and therefore caused no slackening in demand for home-produced white salt. The outlay upon his works was so great that when he died at the end of 1683 he left his estates heavily mortgaged.\(^{(4)}\) His son and brother followed him to the grave within a few months, and the property was inherited by his three sisters,\(^{(5)}\) who do not appear to have made the most of the new-found wealth which their brother had unearthed. In 1690 four of their creditors, one of whom was Celia Fiennes, found it necessary to seize the estate in an attempt to secure a dividend on the £11,801 which they were owed, a sum which represented but a half of the total indebtedness of the Marbury family.\(^{(6)}\) The three sisters’ claim seven years later (in 1697) that they had “through their unspeakable Charge and Industry ... brought it [the salt works] to a good perfection” implies that during the previous seven years it had been allowed to fall into decay. There are good reasons for suspecting, therefore, that either through William Marbury’s acknowledged preoccupation with brine salt or through his sisters’ self-confessed lack of industry, the yield of rock salt from this first pit was disappointing. It is possible that the mine of rock salt may have entered elsewhere not long after 1670, but the first certain

\(^{(1)}\) See, for instance, his request to Richard Norris (7 December, 1697): “Doe not forgett to move the Comrs of the Customs to settle an officer on the Establishment at Dungeon. It’s a great charge and trouble to us as the matter now is”. When he required an affidavit concerning the amount of white salt that could be refined from a given quantity of rock, it was from Dungeon that he obtained a workman to make the necessary statement. (Norris Papers 2/157; 2/134; 2/122.) Peter Shakerley stated in 1710 that Johnson was a refiner of rock salt. (Shakerley to Aston 4 February, 1709/10, Add. MSS. 36914, fo. 44.) For Jonathan Case’s interest in these works, see below, p. 93, n. 7.

\(^{(2)}\) Thomas Johnson to Richard Norris 7 December, 1697, Norris Papers 2/157. A pamphlet entitled Reasons for Continuing the Duty of Eight Pence Upon Each one hundred and twenty Pounds weight of Rock-Salt Without allowing a Draw-back upon the Same by Comparing the Brine Salt made at Northwitch in Cheshire with the Salt-Rock Refined at the Dungeon near Leverpoole in Lancashire (among Add. MSS. 36914) is dated 1697.

\(^{(3)}\) Calendar of State Papers Domestic 1682, p. 282.

\(^{(4)}\) In January, 1706, it was stated that the bond creditors had lent money to Marbury 35 years before, i.e. in 1670–1, when the rock pit was being dug. Manuscripts of the House of Lords, 1704–6. H.M.C., Vol. VI, new series, p. 351.

\(^{(5)}\) William Marbury died 22 December, 1683, his son Columbell died shortly afterwards and his brother Richard died 13 April, 1684. G. Ormerod, History of the County Palatine and City of Chester, 2nd ed. (1882), Vol. I, pp. 635–7; P.R.O., C5. 18/2.

\(^{(6)}\) Torbock v. Marbury 15 February, 1691/2. Sir Roger Hill was owed £3,160, Shevingham Masters £5,276, Cecilia Fiennes £1,266 and Hercules Horsley £2,100. The other debts to a larger number of lesser creditors totalled £11,200. In 1697 the coheiresses complained that the debts totalled £25,000. Excise and Treasury Papers at the Library of H.M. Customs and Excise, Vol. IV, 1688–97, p. 302.
information on this point is that Thomas Warburton discovered rock salt in 1693.\textsuperscript{(1)} In 1697 Thomas Johnson stated that there were four rock pits in all.\textsuperscript{(2)} We are not aware who owned the other two mines nor when they were opened. If it could be shown that one or other of them was developed soon after 1690 by one of the early refiners, as has already been suggested,\textsuperscript{(3)} much of the uncertainty would be dispelled. But at present no such assertion can be made.

The second explanation of the delay in setting up the Mersey refineries starts with the observation that the mid-nineties saw the reimposition of the excise duty upon salt.\textsuperscript{(4)} In 1694 a tax of \(\frac{1}{2}d.\) a gallon (\(\frac{1}{4}\) a bushel) was placed upon salt for three years in order to raise funds for the French wars.\textsuperscript{(5)} To those who framed the Bill, rock salt was a strange new commodity, and it seems clear that the rockmen were able to trade on the Excise Commissioners’ ignorance. The Act was particularly lenient to the rock trade: for excise purposes a bushel of rock salt was declared to be 120 lb. and a bushel of Cheshire white salt 56 lb.,\textsuperscript{(6)} even though rock salt in an unrefined state for curing fish and for other purposes, as the Commissioners admitted only four years later, would “serve the use of almost Two Bushells of White salt reckoned at Fifty-six pounds.”\textsuperscript{(7)} No duty was to be paid until the rock salt was actually sold, a provision which contained an obvious loophole for the less scrupulous, as many bushels found a market hundreds of miles away from Cheshire.\textsuperscript{(8)} Most important of all was clause 26 which read:

“And to the intent that salt made by melting and refining of rock salt may not, contrary to the true interest and meaning of this act be charged more than other English salt, be it further enacted. . . . That where any such rock salt shall be melted and refined which had before paid the duty imposed by this act . . . the person who shall make such salt by refining shall receive an allowance and abatement of duty on the salt by him so made after the rate . . . of twelve pence for every bushel [the amount originally paid] of rock salt so melted and refined. . . .”\textsuperscript{(9)}

It was intended that the refiner should then pay duty on the white salt he produced but there was no clear statement to this effect. In consequence, as the refiners of Bristol later confessed in a petition to the Excise Commissioners, they

\textsuperscript{(1)} Journals of the House of Commons, Vol. XI, p. 102. Petition from Sir Thomas Warburton, 22 February, 1693/4. He claimed to have found rock salt “about a year since”.
\textsuperscript{(3)} Professor Hughes actually states that Slyford “got a footing in a Northwich mine in William III's reign” (op. cit., p. 225), but does not give any source for this statement.
\textsuperscript{(4)} For the excise on salt before 1660, see Hughes, op. cit., chapter 4.
\textsuperscript{(5)} & 6 W. & M. c. VII, 2 & 3.
\textsuperscript{(6)} & 6 W. & M. c. VII, 24 & 25.
\textsuperscript{(7)} 10 Wm. III c. XI, 1.
\textsuperscript{(8)} Clause 22. The Excise Commissioners complained early in 1696 that by this clause “the Proprietors of Rock Salt at Nor[th]wich pretend to send their salt to Shrewsbury and also downe to Bristol to their Storehouses there for conveniency of Sale or Shipping and that they are not bound to pay or secure the duty till the salt is there sold and delivered which will create great inconveniences to the officers where the first entry is made and where the storehouses are kept in their Acre and give opportunity to those Proprietors to defraud the King of a considerable part of the Duty”. Excise and Treasury Papers, Vol. IV, p. 163.
"were advised That by the said first Act laying a Duty on Salt they were not chargeable with any Duty for Rock Salt by them so refined. And . . . upon severall informacions exhibited against them by the Officers of Excise for Recovery of such Duty had judg' given for them against the King. They . . . have sold their salt soe refined without any consideration in the price for any duty laid on the same supposing it not to be payable and hoped they should not ever have been questioned for the same".\(^{111}\)

First among the signatories to this revealing document was Thomas Johnson. It would be surprising to discover that he was willing to pay duty in Liverpool if he did not do so in Bristol or, indeed, to find that any refiners in the country were willing to forego 1/- a bushel once they had detected the weakness in the Act. It was not until 1696, when the salt excise was made perpetual, that the oversight was remedied in a clause which read:—

". . . Whereas some dispute hath since [1694] arisen, whether salt refined or salt made from salt, either imported or made in England and hath paid the duties by the said act imposed and is since melted down, either in sea water or other water and made into salt again, shall be charged with the duty of one penny halfpenny: for the settling whereof it is hereby declared. . . . That all salt made from rock salt (allowing the drawback for the same as in the act mentioned) and all refined salt, or salt made from salt, either imported or made in England, was and is intended to be charged and chargeable with the said duty of one penny halfpenny per gallon".\(^{12}\)

The two years immediately after the passing of the Act of 1694 were obviously most favourable to the rock interest, and the chance of being able to manufacture white salt without having to pay the duty of £2 a ton which the brinemen had to bear must have been a strong inducement to go into business, even though such an anomalous and unfair situation was bound to be short-lived. How far these inducements weighed with the would-be Mersey refiners, it is impossible to say with any certainty. In the case of the Frodsham works, which were apparently in being by 1694, the new duties could hardly have been a consideration unless there was some foreknowledge of the Excise measure. In the case of the Blackburne’s Liverpool salthouse, building does not seem to have begun until after the remedial Act of 1696, though that is not to say that it was not planned beforehand. Despite this rather negative evidence, however, it seems unwise to discount the possibility that the weighting of the excise so heavily in favour of rock salt during 1694-6 may have acted as a stimulus to that branch of the trade.

If 1694-6 represented the high-water mark for the rockmen, the tide soon turned. The brinemen were anxious to employ the machinery of the salt tax as a means of driving their competitors out of business, and the Commissioners of Excise, influenced by the rockmen’s previous evasions of duty and welcoming a source of further income, turned an attentive ear to the brinemen’s pleas. The brine boilers stressed the economic advantages enjoyed by the refiners and urged that the excise should therefore be weighted in

\(^{111}\) Ibid., Vol. IV, pp. 227–8. The petition is undated, but from its place in the book may be dated August, 1696. It has been printed, without the signatories, in Calendar of Treasury Books Vol. XI, p. 230.

\(^{12}\) 7 & 8 Wm. III, c. XXXI,
The rockmen retorted that it was unfair and anti-social that the old Cheshire salt interests should expect to monopolise the market, and claimed that the brinemen combined to limit production and maintain prices. Thomas Johnson already foresaw the possibilities of expansion in the trade: "We may get what quantities we please [of rock salt] to supply (if Incouragement) nott only our one Kingdom and Island [sic] but the Trade of new found Land".

The brinemen gained their most resounding success early in 1697 when the drawback previously granted upon rock salt at the refinery was discontinued, and salt refined from rock had to bear an additional duty of 8d. a bushel on the raw material as well as the usual duty on white salt. Despite Johnson's regular briefing of the Liverpool Members, the House of Commons on 29 January 1697/8 refused to permit any discussion of the matter. It was not until the following June, when the duty was further increased, that the Commons decided by 39 votes to 35 to restore the drawback. But although the refiner was compensated, those who used rock salt in its raw state were penalised: the bushel was declared to be 75 lb. instead of 120 lb., and all salt, irrespective of destination, had to pay the duty within two days.

Meanwhile, from 1697 to 1699, a vital thrust was being prepared by the rockmen. A scheme was afoot to make the Weaver navigable as far as Northwich. The prime mover was Thomas Slyford, or Sleford, a mysterious personage from London, who in 1703 was part owner of a refinery on the Thames. A navigable waterway up to Northwich and no farther would have spelt certain

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(1) The chief arguments are to be found in the correspondence of the Astons. Add. MSS. 36914.

(2) See, for instance, details of an association of brinemen not to sell salt for four weeks "upon the penalty of an honest reputation". (Norriss Papers 2/121b.) The Norris Papers present the rockmen's answer to the allegations of the brine interest.

(3) Johnson to Norris 18 December, 1697. Norris Papers 2/135.

(4) The House of Commons ordered 22 March, 1696/7 "that a Committee of the Whole House have power to receive a Clause or Clauses for Duty on Rock Salt to be paid before removed from pits or warehouse adjoining and for removing the 1/- allowance on refining". No mention is made of this in the subsequent Act, 8 & 9 Wm. III, c. XX, but on 15 July 1697, Jonathan Blackburne and others were petitioning for a drawback "of 8d. per bushel laid upon rock salt melted and refined by an Act of the last Sessions in like manner as the 12d per bushel was allowed by an Act of 5 & 6 Wm. III". Calendar of Treasury Books, Vol. XII, p. 254.

(5) Journals of the House of Commons, Vol. XII, p. 75, 29 January 1697/8. For Johnson's letters to Norris, see Norris Papers 2/157, 2/131, 2/132, 2/135, 2/137. On 4 February, 1697/8 he acknowledged Richard Norris's "unexpected acct. of our affaire of the Rock Salt . . . our loss is considerable" (2/146), and on 8 February he tells Richard Norris that he has written to his brother to thank him for "the Extraordinary trouble he hath taken for us . . . though the success be but ill yet we are very well Assured it was not his fault . . . it's certainly one of the most unreasonable things that ever was Done by men. We often Speak of it but to little purpose . . ." (2/145).

(6) Calendar of State Papers Domestic 1698, p. 309. 9 & 10 Wm. III, c. XLIV, 31.

(7) 10 Wm. III, c. XI, 1–3. The proprietor could give a bond to pay within three months if he so wished.

(8) Willan, op. cit., p. 9. The Weaver project had been in the air for a few years before 1699, for Sir Willoughby Aston mentioned in his diary (Picton Library, Liverpool) "ye Petition against the Bill for making Weever navigable" on 23 January 1696/7. There are other references to this petition in the days following, and 13 February he wrote: "I sent papers toDic. Norris and Alderman Johnson junr. with Reasons why they ought not to peticon for Weever navigable in blank covers without any name". On 29 November 1698 he recorded "Mr. Slyford here staid all afternoon".

(9) Thomas Slyford and Thomas Taubman appealed in April 1703 for a rebate of duty paid on 2590 bushels of rock salt which were lost "by the Thames coming into their salt works". Calendar of Treasury Books 1703, p. 321. Taubman (or Tubman as he was on this occasion called) made a similar appeal in 1701 (Ibid., 1700–1, p. 338).
ruin to the brine interests elsewhere in the county. Led by Sir Willoughby Aston, always ailing but remarkably active in time of crisis, they marshalled all their old arguments with great skill, and to these they were now able to add the plight of the hundreds of land carriers if such a project were to materialise. They made out such a strong case during 1699 that, despite the defection of the Northwich brine interests, Slyford and his friends did not even get so far as a petition to Parliament.

While hostile petitions against the navigation were being prepared in Cheshire during the early months of 1699, Peter Shakerley, one of the Members for the county, introduced a Bill into the House of Commons for preventing frauds and abuses in levying the duty upon salt. The measure was read a first time, but a second reading was disallowed. The attack was resumed in 1701 when a Bill with a similar title was introduced on the petition of the freeholders in the County of Chester, but it never emerged from committee and William Clayton, M.P. for Liverpool, was able to add in a letter to Richard Norris, the cheering postscript that "ye brine men are come of [sic] basely for all their Cracking". In the following year, however, the brinemen's efforts to put restraints upon the rock trade enjoyed a very modest success, largely because of the complete absence of any opposition. All refining was restricted to works within ten miles of the pits except in the case of those refineries which were already in existence, the bushel of rock salt was reduced to 65 lb. and its use in the unrefined state was prohibited. It is not difficult to see why the Bill failed to excite opposition. By preventing rivals from setting up in business and sharing their trade, it was assisting, rather than hindering, the existing refiners. The reduction in the official weight of a bushel of rock salt was of little more than propaganda

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(1) See his diary, passim.
(2) 'Diary of Sir Willoughby Aston,' 20 January, 1698/9.
(5) Petitions were received:
(i) against the Bill from the Merchant Adventurers of Bristol; the refiners of Bristol; Philip Doubt, John Adams and Robert Wren, refiners of Bideford; and Jonathan Case, John Blackburne, Samuel Brockenborough and Daniel Peck on behalf of themselves and other refiners.
(ii) for the Bill from the Masters and Workers of coalmines in Lancashire; in Staffordshire; Brine Salt Proprietors and Manufacturers at Nantwich; Brine Manufacturers in Durham and Northumberland; and the Mayor and Burgesses of Newcastle upon Tyne. (Ibid., pp. 596, 598-600, 5-6 June 1701). The decision of the Lancashire coal interests to side with the brinemen is an indication that the refineries were taking relatively little of their coal.
(6) Petitions were received in favour of the Bill from the Lords and Gentlemen of the County of Chester in Quarter Sessions, the Mayor and Citizens of the City of Chester, the Proprietors of Coalmines on the Tyne and N.E. Ports including Newcastle, and the Salt and Brine Makers of Durham and Northumberland. An amendment was carried by 56-51 and other clauses added on 13 May. The Bill received the Royal Assent on 25 May (1 Anne c. XXI).
(8) Salt was, apparently, being refined in Flintshire before 1702; Daniel Peck, one of the petitioners in 1701 (above p. 91, n. 4) owned a works there. This may have been the refinery at Mostyn, abandoned by Thomas Marshall about 1740 (Ibid.).
value, for a drawback was given to the exporter and to the refiner, and the use of the product in its raw state was forbidden. Although the brinemen had the satisfaction of seeing their Bill on the Statute Book, they had failed to secure those helpful excise compensations for which they had hoped. Six years' jockeying for position left the rockmen virtually unscathed.

II

In the early years of the eighteenth century brinemen and rockmen alike enlarged their shipments from the Mersey both by increasing their traffic with old-established markets and by finding new customers. Cargoes to Ireland, one of the oldest markets, exceeded 5,000 tons a year by 1710.\(^{(1)}\) Six years earlier Sir Thomas Johnson was already sending cargoes of rock salt abroad, and in 1706 several Danish vessels had put in at Liverpool and sent lighters to Frodsham Bridge to collect 1,250 tons of salt.\(^{(2)}\) This marks the beginning of the salt trade with Northern Europe which later assumed great importance when those northern countries came to look to Liverpool, rather than to Portugal or to Shields and Prestonpans, for their supplies.\(^{(3)}\) Meanwhile the traffic in rock salt to the coastal refineries continued to grow. By 1724 Defoe was able to make the point that the Liverpool merchants "trade round the whole island, send ships to Norway, to Hamburg, and to the Baltic, as also to Holland and Flanders."\(^{(4)}\) He was, in fact, instancing the voyages taken by the ships which carried salt.

All this increase in trade placed a greater strain upon the four-legged transport service trotting between the wiches and Frodsham Bridge, and caused the Weaver Navigation project to be revived in 1709 by Slyford, assisted, amongst others, by Johnson, now Sir Thomas Johnson, one of the M.Ps for Liverpool.\(^{(5)}\) But the necessary Bill, having been introduced into the Commons, was only given a first reading.\(^{(6)}\) A second Bill, introduced in 1715, foundered on the committee stage.\(^{(7)}\)

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\(^{(1)}\) Case of Salt Exported to Ireland, Add. MSS. 36914. On 24 June 1709 the Irish Parliament had reduced the duty on rock salt from 12/- a ton to 1/-. In the following eighteen months exports totalled 2,246 tons as compared with 1,001 tons in the eighteen months preceding the revision of duty. White salt shipments to Ireland, on the other hand, fell from 4,752 tons in 1709 to 3,579 tons in 1710. In the following year the Imperial Parliament, in an attempt to redress the balance, imposed a duty of 9/- a ton on rock salt bound for Ireland, but, as Professor Hughes has pointed out, "In an age when perjury in taking a custom-house oath was becoming proverbial, merchants entertained few scruples in entering salt intended for Ireland for the West Indies or Lilliput so long as the Irish customs service, outside Dublin, was inefficient". Op. cit., pp. 246-7.


\(^{(3)}\) Hughes, op. cit., p. 10. The importance of this trade had been realised in 1680 by a Frenchman who petitioned for patent rights. His patent, he urged, would allow salt to be made "better and stronger . . . so that it might be bartered for copper, iron, hemp, and other Navy stores now imported from the Northern countries, which now send to Portugal for their salt". Calendar of State Papers Domestic, 1679-80, p. 563.


\(^{(5)}\) Willan, op. cit., pp. 9-12.

\(^{(6)}\) The Bill was presented 7 March 1711 by Sir Thomas Johnson. Ibid., p. 11.

\(^{(7)}\) Ibid., p. 15.
1721 that Parliamentary sanction was obtained to make the Weaver navigable as far as Winsford, and a further nine years were allowed to elapse before a capable and workmanlike trio of undertakers was appointed to carry out the permitted improvement. The river was at last open for traffic in 1732.

The opening of the Weaver was followed by a rapid expansion in salt production, both rock and white. Shipments down the river totalled 14,000 tons in the first year 1732–3. Twenty years later they were twice as great. Of these 28,000 tons, approximately half consisted of white salt, all of which had been boiled at the saltfield, consuming some 9,000 tons of coal. This was a great weight of fuel to be carried by packhorse from the pits down to the Mersey, and it was by no means the total that was being carried to the south and west of the collieries, for there were the Mersey refineries and the considerable domestic and industrial requirements of Liverpool to be supplied. Despite the turnpiking of the road from Liverpool to the coalfield, the needs neither of port nor saltfield could be adequately met by land transport, and the existing collieries were using their geographical position to monopolise the market. The scale and scope of the salt industry was in danger of being restricted by a fuel crisis.

Once again, Liverpool took the initiative. On 5 June 1754 the Common Council ordered a survey to be made of the Sankey Brook, which flowed from St. Helens down to the Mersey, to see if access could be gained to the coalfield by water. The Corporation looked upon the improvement of the Sankey as the logical conclusion to the Weaver Navigation, and hoped that their dock engineer, Henry Berry, could succeed in dredging and widening the Sankey by cutting off the awkward bends in the stream in much the same way as other engineers had done in the case of the Weaver. But Berry, realising the difference between a meandering brook and a wide river, made his Sankey Navigation as one long cut. His great, pioneer achievement, a completely deadwater navigation open for traffic in November 1757 four years before Brindley’s much publicized waterway, can fairly claim to have ushered in the British Canal Age. The chief promoters were John Ashton, owner of the Dungeon Saltworks, and John Blackburne junior, who had inherited the family refinery in Liver-
pool. Ashton provided just under half the capital. (1) Although the Sankey Canal may be said to have been in general a Liverpool venture, it was, in particular, a salt makers’ creation. Its construction testifies to what extent the fortunes of the port were already inextricably bound up with the salt trade.

To its promoters, the Sankey Canal was to be complementary to the Weaver Navigation. They intended that the same flats (2) should sail up to St. Helens for a cargo of coal, and then make for Northwich or Winsford, to return to Liverpool laden with salt. It is not surprising, therefore, to discover that in the autumn of 1757, as soon as the Canal was ready to be opened, Liverpool Corporation, having contrived to receive a petition “from several merchants in this town, complaining of the ill management of the navigation of the river Weaver”, offered “to bear the expenses of any gentleman who shall take the trouble to go and order a survey of the said river and to meet any gentleman concerned in the said navigation, in order to have the inconvenience and mismanagement of the said river redressed”. (3) This was the beginning of protracted negotiations in which the Liverpool men brought extreme pressure to bear on the trustees of the Weaver to improve the river, to enlarge the locks and thus bring the Navigation into conformity with the Canal which was a five foot waterway, (4) and to accept receipts given on the Sankey as valid statements of cargo. (5) The Liverpool men gained their objectives, and once again ordered their dock engineer to effect the necessary improvements and alterations. Although his mistakes and misfortunes in Cheshire discredited Henry Berry as a canal builder at a time when James Brindley’s star was rising, (6) the necessary alterations were completed under another’s direction by the early 1760s. (7) The Liverpool-dominated salt interest had called into being a most efficient water transport system. They had created an internal triangular trade between Liverpool, the St. Helens coalfield and the Cheshire saltfield which played, perhaps, as significant a part in the prosperity of the port as that other triangular trade which has gained so much publicity.

(1) At the time of his death he held 51 of the 120 shares in the Navigation.
(2) Barges with sails.
(4) Willan, op. cit., p. 54.
(5) These negotiations are treated at length in Willan, op. cit., chapters 4 and 5.
(6) In March 1759, while he was building a new lock, weir and cut at Pickering’s, a “fresh” which came suddenly in the river breached the banks of a temporary channel which he had dug to take off the water while he was constructing the cut. Shortly afterwards the weir was “entirely washed away” and the Commissioners thought it “imprudent to employ him any longer” (Willan, op. cit., pp. 58-9, 166). In his own defence Berry protested that “the breach is not so bad as was represented to you. If the weather hold good, I think we can make it good in about three or four days’ time” (ibid., p. 166). It would certainly seem that Berry, outstandingly successful though he was in harnessing the stream of a mere brook, was unable to manage the deeper waters of a river. But it must not be forgotten that he was looked upon as the agent (as Sir Peter Warburton called him, Willan, op. cit., p. 186) of pushing Liverpool men in the land of the more leisurely Cheshire gentlemen who showed an intense dislike to the changes that were being imposed upon them. It is certain that the people of Cheshire would be only too glad to make the most of every imperfection, however small, in order to discredit this symbol of foreign dictation. And it may be significant that, in the midst of these trials, Berry lost his staunchest and most influential supporter. John Ashton died in August 1759. "Williamson’s Liverpool Advertiser, Liverpool Chronicle, 10 August 1759.
(7) Willan, op. cit., p. 82.
III

After 1757, development in the coalfield at the northern apex of this internal triangle was rapid. Sarah Clayton, a prominent Liverpool figure of the day, opened pits in her coal-bearing lands in Parr.† John Mackay, one of the London Scottish, whom we first encounter in association with Jonathan Greenall of Parr as joint patentee of "a new method of making and manufacturing salt" in May 1761,‡ exploited the coal measures at Parr and Ravenhead on a large scale. In 1769 the Blackbrook arm of the Canal was extended to Laffak Colliery.§ Two years later 90,000 tons of coal were being taken by flat from the St. Helens district.¶ By 1800, 85,000 tons were being shipped to the saltfield alone, and in 1817, according to a petition to Parliament from the proprietors of coal mines at St. Helens, "the principal source of consumption of their Coals is at the Salt Manufactories of Cheshire and Lancashire which they annually supply with upwards of one hundred thousand tons".∥

The increase in demand for coal was caused very largely by an expansion of the brine trade, no longer hampered by difficulties of communication. White salt shipments via the Weaver increased from some 20,000 tons a year in 1760 to 40,000 tons in 1782–3.¶ Nevertheless, production was not keeping pace with the requirements of the new markets which the Liverpool merchants were contracting to supply. The position has been well summarised by a Liverpool pamphleteer, writing at the beginning of the nineteenth century:

"In the year 1784, when the salt trade, both as to manufacture and export was so much confined that a comparison with the present cannot be attempted, some exporters in Liverpool obtained a considerable increase of demand by forming some extensive connections abroad. Instead of being encouraged for so doing, the then salt proprietors (who, all but two, lived in Cheshire) considered it as a favour to let these exporters have salt for their contracts; and when the least complaint of quality, or any other circumstance, occurred, they were told they need not come for any more salt: they might take it or leave it. The consequence was, the people so used revolted at the treatment and

† Harris, op. cit., pp. 23–5; Barker, op. cit., pp. 150–1.
‡ British Patent 760/1761.
§ MS. Minutes of the Select Committee on Railway Bills, Vol. 55, group S at the House of Lords Record Office. Evidence of L. W. Evans 2 June 1864 quoting evidence given before a parliamentary committee in 1829.
¶ 45,568 tons to Liverpool and 44,152 tons to Warrington, Northwich and other places. Thomas Pennant, A Tour From Downing to Alston Moor, London 1801, p. 18. The tour was made in 1773.
∥ Willan, op. cit., p. 228.
§ Journals of the House of Commons, Vol. 72, 7 May 1817.
¶ Willan, op. cit., pp. 208, 220.

The traffic in rock salt also increased greatly during the second half of the century from 20,000 to 50,000 tons. About 1780 a second and purer deposit of rock salt was found 25 yards below the seam discovered in 1670. This second deposit was found after "further researches . . . at the request of the King of Prussia (who sent a gentleman of his board of Trade over for that purpose) . . ." By 1792 "a considerable part of the Prussian dominions was being supplied from this source." (Letter from Nicholas Ashton, Holt and Gregson MSS., Vol. XIX, p. 45.) In the mid-90s about one-tenth of the output of rock salt was being refined at Northwich, Frodsham, Dungeon and Liverpool. J. Aikin, Description of the Country From Thirty to Forty Miles Round Manchester, London 1795, p. 429.

One of them was John Blackburne. In his will, dated 17 June 1779 and proved at Chester, 27 May 1790, he mentions a brine pit and brine salt works at Anderton.
erected salt works themselves, which caused more to follow their steps; and at this period [1804] the interest in the salt works rests, for two-thirds, with the proprietors residing in Liverpool”.

The result of Liverpool’s intervention in the brine trade was striking. White salt shipments down the Weaver increased rapidly to 58,000 tons in the year 1792–3 and to 106,000 tons in the year 1799–1800, an achievement which was, no doubt, made possible by technological improvements as well as by a greater number of works.

Much of this increase was obtained from Winsford where just under 2,500 tons of salt were made in 1781–2, more than 18,000 tons ten years later and no less than 38,000 tons in 1799–1800. Among the shippers of this Winsford salt were Joseph Leigh & Co., Henry Wilckens and Co., and Leigh Hewson and Co., all Liverpool firms. By the 1790s Philip London reported eighty-three flats unloading salt at Liverpool simultaneously, and the Marquis of Bentivoglio, a visiting Milanese nobleman, thought that “Salt is Liverpool’s chief article of commerce”. But, despite this extremely flourishing state of affairs, the worries of the Liverpool salt interest were not yet over. Having broken two monopolies by building the Sankey Canal and by entering the brine trade, they had now to break a third, the product of their own success.

The coal proprietors on the banks of the Sankey Canal took full advantage of the rapid expansion of the salt industry at the end of the eighteenth century. Between June 1800 and 1804 when the Liverpool pamphleteer was writing, the price of coal had been advanced on three separate occasions, the total increase being 43%.

“One should suppose [wrote the pamphleteer] that such customers as the saltboilers deserved attention, that the interests of buyer and seller were so mutually connected, that what hurts one must hurt the other. But it is a lamentable fact that this is not discerned, and that the proprietors at the collieries have as late deemed the saltworks as a kind of appendage to them, whom they by necessity can keep in a state of vassalage: who cannot get supplied with coals any where else, whose complaints they therefore need not heed, and to whom they can set the price at their own pleasure. . . . The high price of coal causes new speculators to embark in a trade which is so lucrative that even the professionalist in law and physic can perceive and catch at it. The new comers give advanced and higher rents to get on; no opportunity escapes their grasp to partake of the golden fleece at which they are aiming”.

Perhaps the writer was unduly hard on the coal proprietor who raised his prices in time of war and uneasy peace, but there can be

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1 Remarks on the Salt Trade of the Counties of Chester and Lancaster (Anon.) (Liverpool 1804), pp. 11–12.
2 Willan, op. cit., pp. 224, 228.
3 In 1787 the German scientist, Chrysel, claimed to have designed a salt pan which would boil salt more economically and to have demonstrated his methods for obtaining 2½ tons of salt for one ton of coal at Richard Kent’s Salt Works near Northwich in 1776. (A. F. Calvert, Salt in Cheshire, London 1915, pp. 121–2.) Philip London reported (1796) that “fire engines have been erected at some Works and others are in contemplation”. (Hughes, op. cit., p. 398.) The first Boulton and Watt engine to be erected in Cheshire (1777) was for pumping brine at Thurlwood near Lawton. Another was erected at Marston Rockpits near Northwich in (it is believed) 1788, and a third at a salt mine at Northwich in 1796. W. H. Chaloner, “The Cheshire Activities of Matthew Boulton and James Watt, of Soho, near Birmingham, 1776–1817”, Transactions of the Lancashire and Cheshire Antiquarian Society, Vol. LXI, pp. 131–2, 135–6.
4 Willan, op. cit., pp. 219, 224, 228.
5 Winsford Tonnage Books at the Cheshire Record Office.
6 Hughes, op. cit., p. 401.
7 Remarks on the Salt Trade of the Counties of Chester and Lancaster, pp. 10–11.
no disputing that the high price of coal and the guaranteed market enjoyed by the St. Helens coalowners tempted the salt boilers to sink pits to ensure their own supplies of fuel.

The reference to "the professionalist . . . in physic" makes it clear that the writer had in mind a combination of salt proprietors and others who entered upon a thirty-year lease of a mine of coal near Gerard’s Bridge, St. Helens, in 1801. The partners in the new colliery were William Leigh of Liverpool, merchant, John Hewson of Middlewich, doctor in physic, John Thompson of Northwich, salt proprietor, George Leigh of Middlewich, salt proprietor, John Leigh of London, gentleman, Joseph Leigh of Liverpool, merchant, George Jackson of Liverpool, merchant, William Carter of Northwich, salt proprietor, John Whitley of Ashton-in-Makerfield, merchant, and Thomas Bridge of Davenham, salt proprietor. Joseph Leigh and Co. and Leigh Hewson and Co. were, as we have seen, two of the newly-established brine boiling firms at Winsford. Joseph Leigh and Co. were shippers to the Baltic and Joseph Leigh himself was a partner in Leigh and Sherlocks, trading with America. A note, written in Whitley’s hand, and pinned to a draft of the lease, confirms that this partnership in what was to be known as the Rushy Park Colliery was an association of salt companies formed to meet an emergency rather than a combination of speculators bent on holding the salt boilers to ransom, as suggested by our anonymous pamphleteer:

"Mr. Whitley conceives that it is not necessary that anything should be said in the articles of the managing partner, as Mr. W. would not wish to be such any longer than it is agreeable to himself or to the other partners. With respect to the partners being supplied with coal, of course it must be in turn as the Flatts come up the Canal, other sale the partners can settle how they shall be served at anytime. The preference to partners in the disposal of any share, Mr. W. thinks, should first be to their own sett of salt proprietors, then, if refused, to the whole concern. . . ."

The Rushy Park Colliery was no isolated example of the Liverpool-dominated Cheshire saltmakers becoming coal proprietors. John Ashton’s son, Nicholas, leased mines in Parr at the end of the eighteenth century and extended the scope of his operations to the immediate vicinity of St. Helens in 1800. He was followed to the coalfield by John Bourne, the brother of Thomas Bourne, who was, in his own opinion, the greatest man in the rock trade, by Thomas Cloughton who, if he did not aspire to the heights in the rock trade,

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2) Lease dated 19 August 1801 among the private papers of Col. H. A. Bromilow, Black Park, Chirk. We are much indebted to Col. Bromilow for permitting us to investigate this deed and other documents in his valuable collection of family papers.
4) Draft of lease dated 3 August 1801. Cross Papers, Lancashire Record Office.
5) Harris, op. cit., p. 70; conveyance from Nicholas Ashton to Ravenhead Colliery 20 September 1823, Cross Papers.
6) Report From the Select Committee on the Use of Rock Salt in Fisheries 1817 [247] III, p. 24; draft lease from Anna Maria Bold, 9 August 1810. Cross Papers; Abstract of Title, Bournes and Robinson, United Alkali Co. Ltd. deeds, Kurtz Works, at the Town Hall, St. Helens.
was certainly a salt merchant on a large scale owning extensive 
estates, and by Thomas Chantler. A strong and unified con­nection was being established between the Lancashire coalfield 
and the Cheshire saltfield. Before long the coal proprietors were 
themselves starting to acquire saltworks, not a difficult task in an 
industry where over-production brought swift retribution and 
drove the small man into bankruptcy.

By the early 1830s every coal proprietor in and about St. Helens 
owned saltworks in Cheshire. The process which started during 
the seventeenth century had reached completion. Liverpool men 
had brought new life to the Cheshire salt industry by intervening 
in the rock salt trade. Then they had stimulated production by 
cutting out the land carriage between the wiches and Frodsham 
Bridge and, when this was so successful that it caused an acute 
shortage of coal, they had created a waterway up to the coalfield 
to connect with the Weaver Navigation. When the salt boilers of 
Cheshire set limits to their production, they went into the salt 
industry and when the coal proprietors attempted to do the same 
thing, they became coal proprietors as well. Thus, over a period 
of a century and a half, relentless pressure from the men of Liverpool 
had brought the coal and salt trade to a high degree of economic 
organisation with Liverpool as its focal point. Only by such 
constant agitation and by such ruthless rationalisation could the 
production of rock and white salt have risen from a mere 15,000 
tons in 1732 to 150,000 tons in 1800, 500,000 tons in 1840 and 
1,000,000 tons in 1870.

These developments assisted in the growth of other industries. 
The brisk and increasing traffic in coal and salt made the internal 
triangle an ideal situation for the manufacture of chemicals. 
Glauber's salt was already manufactured in Liverpool before the 
end of the eighteenth century, and attention has recently been 
drawn to the factory of Lutwyche and Hill as a precursor of Mus­
pratt. The successful introduction of the Leblanc Process on a 
large scale at Liverpool by Muspratt in the early 'twenties was 
followed by the establishment of a number of soda factories else­
where on the coal-salt triangle: at St. Helens, Newton (Earlstown), 
 Widnes and Runcorn and, with the coming of the Ammonia-Soda 
Process later in the century, on the saltfield itself. Much of the 
alkali, bleaching powder and other chemicals made at these factories 
was exported chiefly to the United States, which possessed no 
alkali trade of any note until the end of the nineteenth century. 
By 1857 soda exports alone from Liverpool totalled nearly 33,600 
tons.

(1) Claughton went bankrupt in March 1824. For the extent of his estates and his coal interests 
in the St. Helens district, see sale notices in the Liverpool Mercury, 22 April, 1825; 18 August, 
1826. 
(2) West v. Chantler, bill filed 13 May 1809; draft indenture relating to Cowley Hill Colliery, 
1833, fo. 22–3, Cross Papers. 
Chemicals Division, 1950), pp. 11–12. 
obtained from kelp, in turn stimulated the Merseyside soap industry. In 1792 it was described as "an Encresing Trade not of many years' standing",(1) but by 1820 the Merseyside soap boilers, still using natural alkali, were making two-thirds as much hard soap as London, the chief centre of production.(2) With Leblanc soda, they were able to use palm oil in place of the more expensive fats and by the middle of the 1830s, when they were making 50% more hard soap than the capital,(3) a London soap boiler admitted that "Liverpool is the great market now for the export of soap and there is the great consumption of palm oil and almost all the soap for exportation (certainly nineteen twentieths) is made from palm oil exclusively".(4) By 1850 the entire soap trade to Ireland and four-fifths of all British exports of soap were in the hands of the Merseyside boilers.(5) As with soap, so with glass. A plentiful supply of soda and later of saltcake helped to make St. Helens a centre for the manufacture of plate, window and bottle glass.

IV

It would be easy, following Holt, to relate the growth of the salt trade to the development of Liverpool from its "first rise". If we can rely on a statement, made about 1699, that Liverpool emerged from the humble status of a small fishing town to become a bustling mercantile centre in the late 1660s and 1670s,(6) a claim which is borne out by the marked increase in activity at Liverpool as reflected in the Town Books, it is not difficult to jump to the conclusion that there was a strong connection between these early stirrings and the discovery of rock salt in 1670. But other developments also occurred during these vital, formative years. Already, in 1667-8, Sir Edward Moore recorded that "one Mr. Smith, a great sugar baker at London, a man, as report goes, worth forty thousand pounds" was negotiating for a site on which he planned to erect a sugar house at a cost of more than £1,400. Sir Edward expected that this would "bring a trade of at least forty thousand pounds a year from the Barbadoes, which formerly this town never knew".(7) At the same time, the tobacco trade was coming into prominence, and it is significant that Thomas Johnson, the chief protagonist of the Liverpool salt interest at the close of the seventeenth century, was much more interested in tobacco than he was in salt.(8) This West Indian and American trade was already...

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(2) Return of the Duties on Soap at Liverpool 1821 [73] XVII. By this time Merseyside already produced twice as much soft soap (using caustic potash) as the capital.
(4) Ibid., p. 104.
(6) According to the Corporation's petition for forming Liverpool into a separate parish: "It was formerly a small Fishing Town; but many coming from London, in the time of the Sickness, and after the Fire, several Ingenious Men settled in Leverpool; which encouraged them to trade to the Plantations, and other Places; which occasioned sundry other Tradesmen to come and settle there. . . ." Quoted in F. A. Bailey, The Story of Liverpool, Liverpool 1951, p. 29.
(8) Norris Papers passim. For the tobacco trade at Liverpool, see Baines, Liverpool (1852), pp. 394-5.
linked up with the transatlantic traffic in slaves by the close of the seventeenth century. An instruction to a Liverpool captain, dated 1700, makes it certain that Liverpool vessels were already carrying slaves from Africa to the West Indies, though these voyages were probably of recent origin and still only undertaken occasionally. All this evidence of colonial trade furnishes good reason for asserting that sugar and tobacco contributed more to the early prosperity of Liverpool than did salt. If we are correct in our surmise that rock salt was not exploited on a large scale until the 1690s, this assertion seems all the more valid.

Nevertheless it seems equally justifiable, taking into account not fifty nor one hundred but three hundred years, to claim that salt has been a greater asset to Liverpool than either tobacco or sugar. The Scots seized much of the tobacco trade after the Act of Union, and the buying and selling of tobacco at Liverpool never realised Johnson's early hopes. Indeed, it may be a significant commentary upon the trend of events at the port that he became financially embarrassed after 1720, and was heavily indebted to the Commissioners of Customs in respect of tobacco bonds. Sugar boiling also diminished in relative importance. But the salt industry kept pace with the growth of the port. Salt was particularly valuable to Liverpool shippers, first in the development of their coastwise and Irish trade at the expense of those who boiled sea water, and then as a readily-saleable back-cargo for vessels making longer voyages, particularly those bound for the Baltic and northern Europe. Such a commodity, so close at hand, may have given Liverpool that added advantage which tipped the scales in the port's favour. Salt may have been a considerable factor, for instance, in Liverpool's displacement of Bristol as second port in the kingdom; as we have seen, Bristol itself was even importing salt via Liverpool. By the 1790s salt had become so important in Liverpool's economy that Holt may be excused for believing that this had always been the case, particularly as it

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1 Norris Papers 2/199; 2/567.
2 A number of broadsides and pamphlets issued by the Royal African Company between 1708-10 makes it clear that the Company's monopoly started to be infringed by interloping soon after 1688. By 9 Wm. III, c. XXVI merchants who were not members of the Company were permitted from 24 June 1698 to engage in the Africa trade on a payment of 10% on all cargoes, slaves excepted. Most of these independent vessels appear to have sailed from London in the early days.
3 Henry Hamilton, The Industrial Revolution in Scotland (Oxford 1932), pp. 2-5, 120.
5 By the close of the eighteenth century, almost all the coastal refineries were closed. At Shields twenty pans remained where there used to be two hundred (Earl of Dundonald, The Present State of the Manufacture of Salt Explained, London 1785, p. 1). A correspondent of Holt's claimed that the trade from Liverpool had "caused the Salt Work at Shields, Newcastle, etc., where salt was made from seawater to go totally to ruin and the few works of this kind as at Lymington etc., have only a very precarious subsistence . . . by making artificial salts as Glauber Salts, etc." Holt and Gregson MSS., Vol. XIX, p. 236.
6 In reply to Holt's request for information, Nicholas Ashton wrote that rock salt was exported in large quantities to Ireland, Ostend and the Baltic, "serving as freight for Ships that bring Timber from thence for the supply of this Town and neighbourhood". Holt and Gregson MSS., Vol. XIX, p. 45. According to Aikin (op. cit., p. 429) writing a few years later, 45,000 to 50,000 tons of rock salt went to Northern Europe and the Baltic, and 3,000 to 4,000 tons to Ireland. Giving evidence to the Committee appointed to enquire into the state of British fisheries (1785), Dr. James Anderson contended that there was much smuggling of this salt, once refined, back from Ireland to the west coast of Britain. First Report of Committee, p. 14.
had been specifically suggested by Nicholas Ashton, whose family had been in the business for half a century.\(^{(1)}\) After 1800 the flourishing salt industry, besides continuing to grow itself, was vital to the growth of the chemical and soap industries and, to a lesser extent, of the glass industry. It set the pattern of nineteenth century industrial Merseyside.

\(^{(1)}\) Holt and Gregson MSS., Vol. XIX, p. 45.