

THE SALTERNS OF THE LYMINGTON AREA

By A. T. LLOYD, B.A.

PRIMITIVE societies needed salt in considerable quantities for culinary, tanning and curative purposes; in fact, it probably would not be too much to say that the standards of a primitive society can be measured by the availability of salt.

Although no documentary proof has survived, there can be no doubt that salt ($3\frac{1}{2}$ parts in every 100) was being evaporated from sea water along the south coast of Hampshire at least from Iron Age times.

DOMESDAY BOOK

The first reference is afforded by Domesday, which lists 12 manors in Hampshire which between them had 22 pans in 1086.

Hordle had 6 pans worth 15d. (possibly including the value of the mill). Dibden had 1; Bedhampton 2, worth $37/8$; Totton had 1 belonging to Romsey Abbey worth 10/-. At Eling the King had 1; there were 3 at Havant worth 15d.; 1 at Cosham; 1 worth $6/8$ at Hayling; another worth only 8d. at Copnor, and 2 worth 100d. at Crofton. Finally 1 pan is noted as belonging to Over Wallop and 2 to Boarhunt, presumably on estates of the manors on the coast. Three more were noted on the Isle of Wight.

To give a comparison with other littoral counties, it should be noted that between them, Kent and Sussex had 61 places where sea salt was obtained. Essex had 22, Lincolnshire 34 and Suffolk 10. Some places had numerous pans. For instance there were 47 at Chislet in Kent and exactly a hundred at a place that was probably Rye in Sussex.

For a different comparison, Domesday gives us most detail when listing the 301 pans in Worcestershire, but the method employed in that inland county, with its saline centre at Droitwich, was of course not by evaporation from sea water.

Unfortunately Domesday does not give figures for the number of men employed as saltworkers on any site in Hampshire, but in neighbouring Dorset we know that there were 27 men working at Lyme. Local documents do not mention any families with the surname Salter, until mid-16th century wills.

A problem arises at once in regard to the Domesday statement that there were six pans at Hordle; the present coastline of the parish provides no site where the sea water can flow into shallow mud-flats. It must be remembered, however, that until recently Hordle parish stretched eastwards to include Hurst spit. These salt pans of 1086 must have been either by Sturt pond, where some are mentioned in Henry V's time and shown on an estate map of 1720, or approximately a quarter of a mile further east; unless they were on an estate of the manor away from the parish.

MEDIEVAL REFERENCES

The fact that no saltern is mentioned as belonging to Lymington or Milford cannot be taken as proof that none existed in 1086, for the Domesday clerks are known to have omitted items of value from the record. The chance survival of a document until the

1790s, when it was recorded by Warner, proves that there were a considerable number of saltpans at Lymington by 1132. The document is a confirmation, dated 1147, of a grant by Richard de Redvers' father, Earl Baldwin, of a tithe of the salt of Lymington to the latter's monastic foundation at Quarr on the Isle of Wight. Warner printed it as No. 1 Appendix to his *Topographical Remarks*, 1793.

We know of the grant by a later Earl Baldwin of a tithe of the salterns of Lymington and of one at 'Hordell' from the *Calendar of Ancient Deeds* iii D 942.

None of the nine medieval deeds relating to Lymington that have survived in the Town Records relates to saltworks, and there is only one reference in the 22 deeds concerning land in the town that was owned by Winchester College from the mid-15th century, though the deeds take the records back to the 13th century. Fortunately there exist a fair number of references scattered among the national collections of records in London. Records of Quarr Abbey in the P.R.O. show that the tithe of the salt of Lymington came to be reckoned as 2 qrs. 2 bushels. It is also recorded that William Maskarel made a grant to the Abbey of a tithe of his salt in Milford before 1190. Father Hockey has stated that Quarr Abbey is recorded as having a 'granary' for salt on Lymington Quay by 1250, and suggested that this may well be one of the early buildings there to this day. At the Dissolution the value of the salt dues was given as 7/-.

Other Abbeys benefited from the salterns of this area. About the year 1191 Prior Walter of Bath granted to his man, Nigel de Kiehavene, one virgate and six saltpans etc. This grant was increased by the next Prior to four virgates at a rent of 62 horse-loads of salt, plus 7/6.

References are scattered in volume i of the unpublished Cartulary of Christchurch Priory, now in the British Museum. However, the author of a good account of Hampshire salterns, C. H. Vellacott, writing three pages on the subject in volume v of *The Victoria County History of Hants* (hereinafter called v.c.H.) did not miss the folio with the greatest detail in volume i. Even more interesting are folios 83 and 84 in volume ii, where salt renders to the Priory are detailed from Milford, totalling 21½ 'wichewerks' (each of 2¼ qrs.) and 12 ambers, and from 55 named people of Lymington whose tithe totalled 17½ qrs. 3 bushels. The total rents seem to have come to 49 'wichewerks'.

The earliest document kept on public display in this area refers to Hugh Peverel's gift of salterns in 'Milneford' (Milford) to the Priory. This confirmatory charter of about 1165 hangs today close to the entrance door of the Priory church.

As the account in v.c.H. emphasises, it is from the Ministers' Accounts that there can be culled the greatest detail on the local medieval salterns. Not listed by Mr. Vellacott is that of the 27th to 28th year of Edward I, when production was noted as 272 qrs. 6 bushels. All but 59 qrs. were sold for £15 os. 10d. A few years earlier, in 1287/8, the sum was 1,836 qrs. 6½ bushels. These salterns are listed as being in Old Lymington; the rents in salt are listed against the name of each tenant; for instance, in the 28th year of Edward I, Richard Nichol had one saltern for which he paid 4 qrs. 7 bushels. Over half the rents listed under Old Lymington were paid that year in salt. In 1341, 4,000 qrs. were exported from Lymington according to the records of Southampton.

There are a few scattered references in the Patent Rolls. For instance in 1310 it is stated that Geoffrey Scurlag granted 14 saltpans etc. to Hugh de Ryshton; and in

1385 Edward, Earl of Devon, had 20 saltpans here with a rent of 11 qrs. of salt. Exactly a century later John Bole sold Pennington Nervit, including 10 saltpans and the Fine Rolls for 1451 mention another saltern at Pennington.

TUDOR TIMES

References to the salterns in this period are very scattered.

T. Kirby's *'Annals of Winchester College'* (1892) shows that in the year 1544/5 the College paid £4 6s. 5d. for 'Bay and Lymington salt'.

It is interesting to note that Thomas Dore in his will of 1569 (in the County Records) mentioned his salt 'craste' worth 20/-. Presumably this was a crate.

The records of Southampton often list petty customs charged on Lymington salt. In his talk of April 1958 at Lymington Mr. B. C. Jones, then Archivist of Southampton, listed *in extenso* the account of 1470/1 with such entries as 'for ix chargys solte iiij s. iij d' from Robard Wemaund's ship. The Admiralty Court Records of the same city tell us of one of the frauds practised in Tudor times. Thirteen men of Lymington including George Borod (probably the burgess who had been Mayor the year previous) were fined because they bought salt at a great measure and sold it by a small. George Burrarde's will, drawn up in 1585, has a complete schedule of his property; for instance: in the 'Salte howse - 12 bushells of baye salte 32/-', 'In the salterne - the salte and sande - vii £: ii Leddes-xxx s'. The will of another ex-mayor, Luke Stevens, mercer, was made in 1608. He had a 'Salt shopp' in which were 6½ qrs. of bay salt worth £3 10s. od.

Salt was becoming more easily obtainable as trade with warmer countries increased. Lords no longer ate with their servants in the great hall, so medieval customs in social etiquette like being 'below the salt' were passed on merely as sayings. No longer was the great salt-cellar the finest piece on the table except for ceremonial purposes.

STUART TIMES: PROTESTS AGAINST NEW METHODS

Although iron pans were shipped to Southampton from northern Europe in 1565 and experiments were being made in Holland with windmills (p. 34/5 Hughes), it was not until the reign of Charles I that the introduction of new methods sparked off resentment. The best book on the salt industry and government duties on salt is *Studies in Administration and Finance 1558-1825* by Professor E. Hughes of Manchester (1934). Although the word 'salt' was purposely omitted from the title, such is the subject of this scholarly work, that covers the period from the Elizabethan monopolies to the end of the exorbitant tax on this commodity. Hughes, like Vellacott in v.c.H., refers to the protests of 14 Lymington owners of salterns in 1625 against an order to replace sand mounds with floor pans, and lead with iron, for it was still the summer season and men would thus lose work and profit. In 1625 there were 5 saltworks at Milford and Keyhaven, 13 at Pennington, 8 at Woodside, 3 at 'Oxeye' and 2 in 'the Rows'. We know that in 1681 the pans were cast in four pieces and measured 7 feet by 5 feet by 9 inches deep.

Dr. W. Towsey, in his memo on local trade in 1832, suggested that 'in 1625 a considerable impulse was given to the salt trade by a grant of all the mudlands on the coast'. Robert Pamplin's warrant to hold the 'overflowen and surrounded landd' from

the King in return 'for every acre soe gayned and wonne in one peny per annum' is in the P.R.O. (SP. 16/3). The lands specified were Keyhaven and Berewater and 'doe extend about two miles into the land from the Chissell of Hurst castle'. (See p. 111 of King's *Old Times Re-visited*, called O.T.R. in later references.)

Among the Town Records is a Survey of the Manor of Old Lymington for the year 1645, that is, only 20 years after the protests mentioned above were recorded. The rental value from 39 salterns, 53 tenements, 16 cottages and 618 acres came to £150 5s. 4d. Many men whose names often appear in the town records are listed as owners of salterns. For instance there are George Burrard, with 4; William Harmwood, 1; Thomas Burrard, 3; Francis Guydott, 1; and Bartholomew Bulkley, 2. In 1653 F. Guidott bought 5 salterns for £110 (see O.T.R. p. 243). It is a great pity that none of the local Token coins used here in the '60s depicted a scene from the salterns, for some issuers were saltern owners.

For the parish of Milford 30 years later, that is in the 1690s, there are the full tithe accounts kept by the vicar, the Rev. John Birkett. These accounts form the basis of A. B. Woodd's 10-page article in volume 1, no. 5 of the *Milford Record Society Magazine* for November 1912. He notes that in 1690, 164 ambers were due to the vicar from Pennington and 69 from Keyhaven; this total, at 9d. an amber (each of 2 bushels) was worth £8 14. 9d.

THE SALT TAX BEGINS, 1694

It was in 1694 that the government of William III decided to impose a duty on salt; the measure was passed with no organised opposition. Salt had been selling at 2/8 a bushel; a duty of 1/8 was now imposed on native salt, with salt for fisheries being exempted, and foreign salt charged at a much higher rate. (Details can be seen in v.c.H. Worcestershire.) As early as 1697 the duty on English salt doubled, to 3/4. By a strange coincidence, it was at precisely the same time that the government ordered a survey of all harbours and inlets. The report included a magnificent series of maps by E. Dummer and T. Wiltshaw who showed clearly the extent and importance of the local salt industry by sketches of a chain of boiling houses and wind pumps from Milford to Lymington (pl. IV).

THE METHOD OF EVAPORATION DESCRIBED BY CELIA FIENNES

Even more important is the fortuitous visit to Lymington just at the turn of the century by Celia Fiennes. A relative owned saltworks of a different kind at Droitwich and she had an interest in land that produced the first rock salt, so she took a great interest in our evaporation methods, which she described in detail in her journal, printed as *Through England on a Sidesaddle*. Her account was printed in v.c.H. by Mr. Vellacott (The Cresset Press edition of her work, published in 1947, states some boiling houses had 30 copper pans in them; this is not the figure given in v.c.H.). She stated that sea water was drawn into trenches and thence into ponds, secured at the bottoms with clay and gravel to evaporate in the sun. It was then drawn off by pipes to be boiled in iron or copper pans, about two yards square, inside boiling houses. Sixty quarters could be made in one pan in a hot dry summer. She does not mention the wind pumps used to draw up the water. (Those in E. King's time were 12 feet to 14 feet tall.)

Defoe was another visitor soon afterwards; he wrote: 'this town is chiefly noted for making fine salt, which is indeed excellent good, and from whence all these south parts of England are supplied as well by water as by land carriage, and sometimes, tho' not often, they send salt to London, when contrary winds having kept the northern fleets back, the price at London has been very high.' He was writing at the end of the first quarter of the 18th century.

THE EARLY 18TH CENTURY

In 1964 a group of deeds was given to the Red House Museum at Christchurch. Among these is a Mortgage of 1st May, 1703; Richard Fry, a baker of Salisbury, put up £200 on the security of half a saltern etc. owned by James Lansdall. The document gives details of previous owners that show that this is one of the five salterns referred to in the deed of 1653, noted in O.T.R. p. 243. The year 1703 of course, saw the great storm in which some salterns were flooded.

King's O.T.R. has a chapter of six pages on the Lymington salterns, concentrating mainly on a lengthy declaration of co-partnership made by 23 owners with votes according to the number of their pans; for instance James Perkins, Esq., had 28 pans at 'Oxey' and therefore eight votes. The document has a great section cut out, and some parts are difficult to read but it perhaps should be noted that the owner of the 'Stone' and 'Rowe' salterns was not Thomas Brown, but Bower. The document is dated 1743. It does not actually name the salterns; we owe their identification to King's O.T.R.

One hundred and sixty-three pans were in use in the Lymington area, and this was the time of greatest prosperity, if the level of its salt dues are a guide. In 1730 Walpole had repealed the salt duties – there were 438 paid officials in the country – but his administration reviewed the taxation possibilities and resolved, only two years later, to re-impose them.

According to a Memorial in the Customs Tally Books (*Milford Rec. Soc.* vol. 2, no.2, p. 15), the Lymington saltmakers complained on 22nd March, 1718, 'of the great hardships they labour under in regard to their being at so great a distance from this port (Southampton) which many times occasioned the loss of a fair wind before they can have dispatches from us at Southampton, and consequently tarry sometimes one, two or three weeks before the wind happens to come for them to sail'. In July, 25 petitioners asked specifically that duties might be paid at Lymington.

O.T.R. printed on pages 115/6 a Ballad, *The Praemium; or the Poor Saltern-man's Delight*. The third verse goes:

A Crown above the Duty laid,
Affects all other traders;
For all your Debts must go unpaid,
By Means of such Invaders;

.
Down, down, down with the PRAEMIUM.

Despite the increased duties, salterns were obviously very profitable, for O.T.R. (p. 219) records an extract from the Court Rolls of the 1750s in which Captain Northover was ordered 'to pay 1s. a year for the Common Land lately dugg up and converted

into salt-pans at Maiden Salterns'. It is more than likely that the enclosure made illegally by Gregory Mussen in 1738 (O.T.R. p. 217) was also for a saltern.

FIGURES FROM SOUTHAMPTON RECORDS

Mr. Raban, vicar of Pennington, in 1962 worked through the Southampton Petty Customs books for the years 1724 to 1766. He found that there were entries extant for 19 of those years, and that the total number of bushels of salt from Lymington dealt with was 184,480 bushels (i.e. 4,612 tons), excluding about 9,400 bushels exported without the name of the source. These bring the number of ships mentioned to 64, 12 of which were destined for Newfoundland and 33 for America; 5 were for Ireland, 7 for Norway and 4 for the Channel Islands. 1746 saw the greatest exports – 36,600 bushels in 9 ships.

From the Exchequer Port Books Mr. Raban found that in 1748, 40,260 bushels were shipped from Lymington to Southampton, compared with 31,070 four years later.

Fortunately we have figures for the number of pans in this area in the year 1749. There were 149 at Lymington; 50 at Milford; 42 on the Isle of Wight and 54 at Portsea (see Hughes, p. 409). This can be compared with Hughes's figures for the Tyne area in 1748 – 200, but only 20 in 1785.

The chance survival of deeds, such as that of 1781 in which Jonathan Garton obtained a mortgage of £800 from William Rigg (reference being made to Batts saltern in 1775) adds a few scraps of information and, with the founding of the *Hampshire Chronicle* in 1772, it is possible to compile a list of salterns put up for sale such as William Furner's three pans, let at a rent of £40. *The Salisbury Journal* also at times advertised the sale of salterns, as in 1778.

THE TAX

In the Public Record Office, indexed as Audit Office Accounts, are the records of the amounts collected at the salt production centres from 1694 to 1798, when the accounts came under the Excise Office, which only seemed to record national totals. Hughes quoted the official memorandum of 1732 which assessed the gross charge of salt duties as £473,000 leaving a net figure after deductions of £186,000. That year, 1732, when the duty was re-introduced, Joseph Slater was the Collector at Lymington, as he had been since 1715 at least. In 1715 Lymington saltern owners paid £25,110 in duty; in 1732 (not a full year) they paid £8,568.

The Rev. R. Warner stated in *Topographical Remarks* (1793) vol. 1, p. 40 – '25 years ago £50,000 was paid in duty here'. It turns out to be approximately correct for 1745, the second highest figure of those checked.

That year John How, the Collector, was paid £100 in salary, and 41 other officials here received between them £1,465 18s. 11½d. The amount they collected was £48,994 19s. 2d. The highest figures were for 1755 – £57,891 General account; £43,270 Cash account. The Excise documents do not give figures from each centre; however its first accounts, for 1797, give the surprising total of £2,163,931, nearly 18 times the amount collected nationally in the first accounts when Lymington's contribution was £11,024. That was the period 1694/6, when John Kent was the Collector.

The P.R.O. accounts name the chief local officers and state their salaries. For in-

stance in 1775 George Burrard, the Collector, was paid £100 and his deputy, John How, £60. Eleven officers and Thomas Sheppard, the supervisor, were each paid £40. Seven other officers were paid £30, and 18 received £20 salary. Three generations of the How family held high office here; John the elder died in 1750, Vesey died in 1773, and the younger John was sub-collector in the year 1775.

Just before the duty went up to 10/-, a careful report was made on the local industry for the government by Mr. Philip London, in 1796. He stated that at Lymington there were 103 pans, distributed among 30 works; 20 of the most considerable belonged to seven men. He estimated the capacity of the industry here as about 6,000 tons a year. He also noted that there were 90 earth pans unoccupied.

In 1798 the tax was doubled, to 10/- per bushel ($13/4$ on foreign salt). Despite this, the excise duty collected in 1804 was only half that of 1797, and the following year, 1805, it was not appreciably higher at £1,384,699. This was the year that Pitt pushed the excise to 15/-, a figure it remained at till the duty was completely taken off in 1825.

Professor Hughes comments on the difficulties faced by Lymington proprietors from European competition. Coal had to be brought here at a very high cost, on top of which was the crippling duty of $5/4$ a chaldron (noted by Bernard in 1817 as £30 on each ton of coal). Sir T. Bernard made a special plea on behalf of the salt proprietors of Lymington against this coal duty in his book *Case of the Salt Duties*, but without avail.

MR. ST. BARBE'S NOTEBOOK OF 1805

It was, presumably, the raising of the tax to 15/- per bushel of salt in 1805 that caused Mr. Charles St. Barbe, or someone intimately linked with his methods of accounting, to set down details of his salterns and to record how he gave the Excise officials figures of his salt shipments that were below the true amounts but not enough to make it worth while for the officials to call his bluff. His notes were unfortunately obliterated in places by the cuttings pasted in the book by its owner some 70 years later. The book is now owned by the Red House Museum at Christchurch, but was utilised by E. King in his *Old Time Re-visited*, though with two slips (p. 165 omitted home fisheries, and gave 5,000 tons – instead of 4,000 – as the average amount made here).

Mr. St. Barbe's 15 saltworks are listed and named; they amounted to 48 pans. The names of works, number of pans, and boilers' names are as follows: Eight pans, 8. Wm. Vick & Jn. Hampton; Troy Town, 7, Wm. Evans; Coles's, 4, Jn. Coles; Great Bridge, 4, Jos. Dore; Flatfarm, 4, Wm. Wyles; Oxey, 3, Jos. Hampton; Little Oxey, 2, Jn. Rutter; Dore's, 2, Geo. Read; Little Bridge, 2, Jacob Hampton; Hamptons, 2, Rd. Wheatley; Dimmicks, 2, W. Dimmick sen.; Lawrences, 2, Jas. Lawrence; Hebbards, 2, Wm. Dimmick jun.; Vineys, 2, Jn. Viney; Shephards, 2, Chas. Ninam.

'Each pan makes about three tons per week and if the brine is good consumes about 18 bus. of coal to each ton of salt; 16 drifts is reckoned a week-work – i.e. from Sunday night 12 o'clock to Saturday morning 8 o'clock – all the above works boil bitter except Little Bridge and Lawrences; 8 Pan work is the only refinery.

The quantity of salt made at Lymington upon an average of the years 1801, '2 and '3, is about Four Thousand Tons – and at the other saltworks within 30 miles of Lymington it is supposed that about 2,000 tons more may be made annually. Say the

average annual quantity of salt made at Lymington, 4,000 tons; at works within 30 miles of Lymington, 2,000 tons to 6,000 tons.

Of which it is imagined that 1,800 tons is exported to North America; 300 tons to Newfoundland; 300 tons to the East Country; 200 tons to the islands of Guernsey, Jersey and Alderney; 200 tons (omitted p. 165 in O.T.R.) for the home fisheries; 3,200 tons for home consumption paying Duty – 6,000 tons.

In the year 1802 many of the works boiled only 2 weeks, in consequence of almost constant rains. An extraordinary Season may allow 22 weeks boiling – but 16 is as much as may generally be reckoned on. This yr. 1805, the works will average something more than 13 wks.

1,180 chns. of coal have been landed; 150 chns., or thereabouts remain unused – 1,030 chns. have been consumed, which should produce 2,060 tons of salt, but some of the coals (cost 32/6 on 15th Jan.) were so very bad that not more than 1,950 tons of salt are supposed to be made.

100 tons (of salt) at 38/- amt. to £190. Suppose 50 chns. Coals consumed in making 100 tons at 40/- per chn. £100; Rent and taxes, say: £18; Making, at 5/- per ton, £25; Wear and tear: £20 – £163. At which calculation the gain upon 100 tons salt is £27.

A 2 pan work makes about 6 tons per week and if they boil 16 wks. they produce 16 wks. at 6 tons per wk. – 96 tons, at 5/9, making £27.12s.; 96 tons salt should produce 3.72 tons of bitters (20/-): £3.10s. – £31.02s.; Deduct a Boy's wages at 5/- per wk. for 16 wks.: £4. The net earnings of a boiler at a 2 pan work – £27.02s. Each operation of boiling or what the workmen call a Drift is 8 hrs.

On shipping salt for Exportation a Bond is given to the Excise for Treble the Duty – that it be not re-landed. Consolidated Customs 1/- and Tempy. War Duty 1/- per Ton or the tonnage of the vessel per Register. Consolidated duty 1% Tempy. War Duty 3% – on declared value of Goods.

Thus the Entry for the Ship *Charles* for New Bedford State of Massachusetts, N. Amer. 18 Sept. 1805. Jno. Mitchell for Chas. St. Barbe entered per Ship *Charles*: 244 Tons per admeasurement Cons. Customs: £12.04s.; Tempy. War Duty 1803: £12.04s. – £24.08s. 12,000 Bus. (i.e. 300 tons) valued by declaration at £570; at 1% £5.14s. Tempy. 1803 3%: £17.02s. – In the declaration of the value of Salt or other goods: £22.16s.

10% is usually deducted from the actual amount but it is advisable to add a trifle more to the declaration as the officers of the Customs are empowered by Law (if they suspect that a fair statement of the value has not been made) to offer 10% more than the declaration and the merchant is obliged to sell the goods to them at that offer.

The 300 Tons of Salt per the *Charles* at 42/- per ton amounts to £630; Deduct 10%: £63 – £567. Duty as on the foregoing statement was paid on £570.'

Mr. St. Barbe noted on p. 78 that the Bishop of Lincoln had bought in December 1802 for £16,250 General Stibbert's estate of Pennington Nervitt. He then noted that he himself (St. Barbe) paid £38.02s. rents to the Bishop for his saltworks on the estate.

Mr. St. Barbe was the main banker in the town; he seems to have acquired most of the salterns from proprietors, presumably when the latter asked for mortgages as the industry died.

THE PROCESSES DETAILED BY ST. BARBE IN VANCOUVER'S BOOK OF 1813
(fig. 18 and pl. III)

We owe another great debt to Mr. C. St. Barbe, for he provided Charles Vancouver with a remarkably full account of the actual processes for the latter's *View of the Agriculture of Hampshire* (1813). v.c.H. did not have room to print more than a few lines, but – as it is a rare book and such a valuable account – a full account is given here, from pages 420-4.

The manufactures for which Lym. is most noted, are those of culinary and medicinal salt from sea water. This business is pursued much less now than formerly, but still carried on to some considerable extent, particularly by Mr. St. Barbe.

The salt works at Lym., formerly very extensive, are perhaps equal to any marine manufactory of that kind in the kingdom. The sea water is first admitted into feeding ponds, from whence it flows into levels, in which there are partitions, forming pans, as they are called, from 20 to 30 square perches each: these receive the sea water from the feeding ponds to the depth of about 3 inches, and from which it passes from the higher to the lower pans, exposed to the action of the sun and wind, until the brine becomes of a sufficient strength to be pumped up by small wind engines into a cistern, whence it is conveyed by troughs into the respective iron pans for boiling. The ordinary size of these boiling pans is about 8 feet 6 inches square, and about 11 inches deep, but of which depth about 8 inches only is filled with brine, which is kept gently simmering until the last hour, when the heat is much augmented, for the purpose of drying the salt, which has been all along forming on the surface of the brine, and falling through it to the bottom of the pan, thus gradually diminishing the brine in the pan at the rate of about $\frac{1}{2}$ inch per hour (pl. VI b and c).

The extent of ground required for evaporation, exclusive of the feeding ponds and cistern, is about 3 roods, or 120 perches to each pan. The standard by which the strength of the brine is ascertained as fit for boiling, is with glass beads or bubbles, or

DIAGRAMMATIC REPRESENTATION

OF THE

METHOD OF PRODUCTION OF SALT

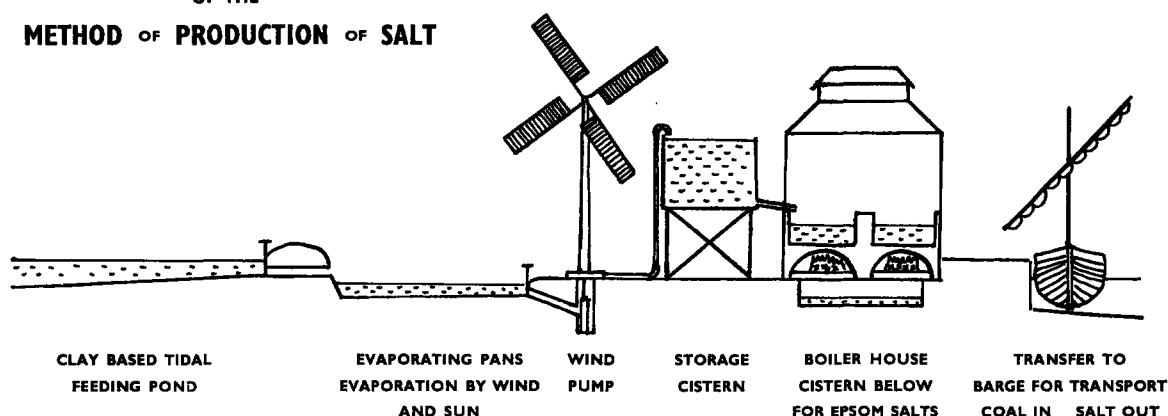


Fig. 18

hemispherical formed pieces of wax, loaded with lead, and so graduated as when just floating in the brine, the workmen know that it is of such a strength as the burning of 18 bushels or $\frac{1}{2}$ a chaldron of coals will produce about 2 tons of salt, each pan yielding about 8 bushels of dry well drained salt every 8 hrs., and consequently a bushel per hour for the 6 days and nights they are thus kept constantly employed. When the salt is first taken out of the pans, the quantity would measure more than 8 bushels, but as it is left to drain in the trough for 8 hrs. after the pans are emptied, about 10 gallons of bitters run from each trough in that time, and which, with the dissolved salt carried down with the bitters, but afterwards arrested upon a stick placed under an aperture in the bottom of the salt trough, and by the workmen called salt cats, is reduced to the 8 bus. of well drained salt before mentioned. The salt thus re-crystallised, and forming the salt cats, is esteemed by far the strongest and best salt made at the factory, but which, by Mr. St. Barbe, is always broken up and mixed among the mass.

The calcareous crust requires to be taken off every 14 days, when it is broken small and thrown into adjacent brine pits, to dilute and give out the salt with which it is so highly charged, and which brine is afterwards pumped into the cisterns for boiling. The salt-pans are all made of plates of wrought iron, well secured and rivetted together, and will cost new (making included) from £36 to £40 each, weighing about 18 cwt.

The salt shipped for exportation sells in war time from 38s. to 42s. per ton; when used for home consumption it is subject to a duty of £30 per ton; hence a bushel of salt weighing 56lb. purchased at the works for 16/3 pays 15/- to Government in duty, and 1/3 to the manufacturer. The bittern discharging from the manufacture of so much marine salt is conducted into a large tank or reservoir under a part of the building. In the cold frosty season of winter, this bitter water is drawn by a syphon out of the reservoir, and carried by troughs into the boiling pans, where after being boiled about an hour, and its impurities skimmed off, it is left to remain until the following morning, when in a milk-warm state it is conveyed into wooden cisterns or deep coolers, and the common Epsom salt is then found to crystallise, and adhere to the bottom and sides of the Vessel. This is called single Epsom salt, and is worth about 9/- per cwt. for export, but subject to the common salt duty of 30/- per cwt. if used at home. In order to procure a more general sale of this article, it is sometimes refined by the manufacturer who dissolves the single Epsom salt in pure fresh water, boiling the solution afterwards in a copper pan, when after being again well skimmed, it is returned into similar wooden vessels to crystallise, and is then worth about 16/- per cwt. for exportation, but also subject to the common salt duty if consumed at home. The diminution of quantity on refining is about one third, and the difference of price accruing on the remainder will about suffice to pay the additional expense incurred by the latter operation.

Considerable quantities of Glauber salts, called candy, are found in large crystallised masses at the bottom of the bittern tanks; these however are always boiled down and subjected to the regular course of formation afterwards.

There are 68 pans in the Pennington and Lymington saltings: the average annual period of working them is 16 weeks, during which time each pan yields from 16-17 draughts or boilings weekly, amounting from 3 tons to $3\frac{1}{4}$ of merchantable salt per

pan, for every 6 days they continue at work. From a bitter liquor which drains from the salt there is also made from $3\frac{1}{2}$ to 4% of Epsom salts, calculated on the quantity of common salt manufactured at these saltings; on a supposition that the whole was consumed at home, the revenue produced annually to Government by these saltings would be considerable: great quantities are, however, exported to America and other countries, on account of which but a very trifling duty is paid.

Some attempts have been made, and so far thought to answer tolerably well, of making bay salt on these levels: but the length of time required, from the natural humidity of the climate, must for ever operate against this mode of making salt upon a large scale.'

DECLINE AND FALL

The decline of the Lymington area salt production was a long and painful process; Hughes comments, the amazing feature is that it took so long a-dying. The total effect of the duty on salt, at its highest after 1805, was to produce – as Bernard wrote in 1817 – an article 40 times its real value. With the cost of coal, plus the duty on it, the figure was probably 60. According to St. Barbe's notebook it took 18 bushels of coal to produce one ton of salt. (Vancouver's figure – also from St. Barbe – is exactly half that amount.) There can be no doubt that the main reason for the decline of the production of salt from the sea in our island was the fact that coal was needed in such huge quantities. Sea-salterns along the south coast were, of course, the hardest hit, for coal had to be brought from such great distances. Added to the cost of the coal itself and of its transportation there was the excessive burden of 15/- duty on each bushel of coal. The producers of rock salt in Cheshire were trebly blessed.

Writing in the year that saw the beginning of the long war with France (1793) – before the salt tax had been doubled and even trebled by that war – Warner noted that the excessive duty of £20 a ton on Glauber (medicinal) salts had already almost prohibited their sale. He also referred to the government's decision not to exempt from duty the coal for salt boiling, and stated that the local 'salt works would e'er now have been utterly extinguished, had not a seasonable demand for the salt sprung up from Maryland and Virginia, which, together with a trifling exportation of it to the London market, still keep them in existence'.

Despite this reasoned comment by Warner on the signs of decay, it is stated by Woodward in his *History of Hampshire* that at the turn of the century the Lymington salt trade stood second only to that of Liverpool; Lymington's production was 149,839 bushels and Liverpool's (rock salt) was 165,985. However, he added a footnote to show the sharp decline in production here; in the year that the Napoleonic wars ended, 1815, the return of the coastal salt trade from Lymington was only 39,365, while that from Liverpool totalled 1,389,199 bushels.

It was another ten years before the tax on salt was removed, but it was already too late to save the local salterns, though a few were restarted. In the actual year of the repeal of the duty, 1825, David Garrow's pioneer *History of Lymington* was published. He wrote – 'about 35 years ago a dozen salterns . . . now not more than three: within the last nine months the Lymington manufacturers have imported salt from Liverpool.'

By a strange coincidence the manuscript Estate Book of Bishop Tomline's lands

in this area was also compiled in 1825. On page 17, under the heading 'Pennington Manor Farm' comes No. 624, Old Saltworks, 4a3r27p; on page 21 No. 631 is High Lay Saltwork, 48a1r37p. This latter is presumably the area in Keyhaven now called Iley. This manuscript book is now in the keeping of Lymington Library.

Three years after Garrow's first history of our town, there was published *New Guide to Lymington* – by 'a Resident' (probably R. King). On pages 14-17 (pages 130-3 in the 1853 edition) he gave a clear account of the methods of manufacture of salt. Although basically the same as that in Vancouver's book, there are some differences and some items of added information. He says the pans varied in size from 25 to 120 square yards. Specific gravity was shown by glass globes number 4 to 8, and he says the 'liquor' was moved six times from pan to pan. From the cisterns it was pumped into a clearing reservoir and then by wooden pipes into the boiling pans. 'It is kept boiling about an hour, during which time the impurities are removed from the surface; when crystals appear the fire is damped and simmering ensues. The whole of this process takes 8 hours and, for economy of fuel, it usually continues from Monday till Saturday without intermission. The boiling houses vary in size from 2 to 8 pans, though about 50 years since some contained even 20. The fluid that issues from the salt while draining is called "bitter liquor" and passes into covered cisterns called "bitter pits".' He states that the 'coolers' for the chemical works were about 16 inches deep, and that sulphuric acid was added to produce salts less liable to deliquesce.

E. King's O.T.R. gives credit to the unique Lymington Brine Shrimp in aiding the clearing of the brine. He says, too, that the last saltern to operate was the Rowe saltern.

According to Mr. Heygate (*Milford Rec. Soc.*, vol. 2, no. 2, p. 12) the Milford Churchwarden's Rate Books show that 'in 1809 Mr. B. Hicks had a Keyhaven saltern, rented at £15 paying a shilling rate of 15/-; this was so until 1812 when the rental dropped to £10, and so remained till 1818, when there is no further entry of any rate on any Keyhaven saltern; presumably this saltern ceased to be worked, though, as late as 1835 Messrs. St. Barbe & Co. possessed salterns in the parish, rented at £20 and rated at £1.'

Though a few had restarted when the tax had been removed in 1825, by 1836 only 14 were in use. Within a decade the new railway network would enable northern and foreign salt to be dispersed for sale anywhere in the kingdom. By 1865 it was all over, according to E. King; though C. P. Jones gave 1868 and other dates on page 171 of his *History of Lymington* (1930) probably based partly on the evidence of the 1871 O.S. map for he mentions two windmills still standing in 1871.

C. P. Jones stated that the windmills were demolished in 1873, but gave no source for his statement. The earth mounds on which these stood now rise about 5 feet above the salt marshes, and are approximately 30 feet across. One, not marked on the 1871 O.S. map, stands about 300 yards due east of Creek Cottage.

The 1871 map marked three 'pumping mills' on the marshes east of the footpath that now links Major Hibbert's 'The Salterns' with Mr. Hill's 'Creek Cottage'. The area nearest the sea was marked 'Oyster Bed', and there was another narrow banked enclosure so designated to the east of the old salterns that have been turned by Major Hibbert recently into 'The Salterns Junior Sailing Club'. On the seaward side of that Oyster Bed was an area called 'Fish Pond'.

About the same time that the Lymington salterns were abandoned, the same fate befell those at Hayling. There too a Company found it profitable to turn part of the old salterns into Oyster Beds. We unfortunately have no contemporary picture of the Oyster Beds at Lymington, but a clear sketch of those at Hayling published in *The Illustrated News* of 15th August 1868 shows what they must have looked like.

A confirmatory account of what happened here when the salterns fell into disuse comes from E. King's *Round Lymington and through the New Forest* (1877). On page 64 he states: 'On the site of the latest that were kept in work (up to 1865), there is now an oyster breeding establishment, in connection with ponds for the preservation of salt-water fish for the inland markets: a scheme set on foot about 1870.' In O.T.R. he writes that the marshes were then, by degrees, more or less levelled, so as to render them useful for grazing; the old houses were removed and ponds filled up.

Garrow's book shows that this process had already gone far by 1825. 'There are some remains of salt works' - he wrote - 'to be seen at the mouth of the Start (*sic*) River; but they are very faint vestiges of them, and are scarcely to be traced.' A few pages on he wrote: 'Over Keyhaven Bridge is a footway intersecting the salt marshes, which eventually leads to Pennington and Woodside; but the latter are so encumbered with disused salt pans, and so many pits and dykes present themselves in almost every direction of them, that it affords a tedious walk by day, and is a dangerous course to pursue at night. Lately, however, a great part of this marsh, contiguous to Keyhaven, has been drained at a very great expense, by Mr. Dennet, it forming a part of his farm. It now affords, at seasons, a dry and sweet pasture for sheep, horses etc., and will, it is to be hoped, in the course of time, repay him for the pains he has taken to redeem it from the general waste. On Coles's saltern, better known by the name of Eight Pans, is a large waste piece of ground covered with furze, whereon are an abundance of rabbits; it is the property of Charles St. Barbe, Esq.'

An interesting account of the festivities that had been held here annually appeared in *The Lymington and Isle of Wight Chronicle* for 19th October 1866. 'Each September, as the sun lost its power, the proprietors regaled their men with a banquet. A dozen legs of mutton were enveloped in thick coats of dough and placed in cavities of boiling brine. Freshly culled samphire, from around the saltings, proved a welcome garnish.' (This brings to mind the entry in the Rev. Birkett's notebook that 'at Midsummer (1681) out of my good will, I invited them to my house to drink a bottle or two of ale'.) By 1866 the industry had died.

Relics of the Salt Industry

Despite efforts to erase the evidence, after 100 years several traces may still be discerned of the industry that brought wealth to Lymington. King's Saltern has become the Town Swimming Bath and the road from it is called King's Saltern Road. This was the Saltern shown close to Mrs. Beeston's Baths in Thomas Rowlandson's sketch of 1784 or 1785 (No. 32 in the Huntington Library edition of 1963). All traces of Vienna Saltern north of the town quay have gone, but some 400 yards south of the Bath there is one of the six barge inlets from the Solent that form such a prominent feature of the area of the old salterns. Next to it is the field in which stands the tall brick building, now used as cow sheds by the farmer of Normandy Farm nearby. All

around this grazing ground is intersected by drainage channels; there is also evident on the ground and even more clearly from the air, other cross channels, forming rectangular areas, some of which were probably salt pans. There is every likelihood that the tall building was used by the saltern men.

The next inlet for barges to bring in the coal and take out the salt terminates just north of the Junior Sailing Club, which still retains in and around its pool, high banks that defined the salt pans here till the 1860's. A quarter of a mile further on is the creek, lined with stone slabs, that leads to Creek Cottage, where it doubles its width to over 20 yards; there is another widened section 200 yards away, presumably made so that barges could turn or pass each other. Beside the terminus are two brick buildings probably of mid-18th century date. That nearest the creek is 21 feet by 42 feet; it may have been a storage building for the salt. Nearer the footpath is an 'L' shaped building, built of slightly older bricks, judging from their smaller dimensions – 8½ inches by 2 inches. It is approximately 36 feet on its longest side and 30 feet on the north, with a chimney at the inner intersection that forms the 'L'. Presumably both buildings were used by the salt workers. Other buildings are shown nearby on the 1871 map, including a pumping mill (pl. VII a and b).

Tradition has it that 'The Chequers' Inn, a quarter of a mile down the lane inland, was the headquarters of the Salt Duty Collectors, and that its sign is a pun on their job. However, there is no proof for either assertion; the sign may derive from that of the St. Barbe family which acquired so many of the pans as the industry declined. The date of the inn's first lease seems to be September 1787.

Right on the edge of the salterns still stand the three linked Duke's Head cottages; according to local tradition No. 3 – on which is a brick dated 1824 – was used as a public house until the coastguards moved in when the saltworks declined.

House names, a road name and 'Salterns' on maps keep the word 'salt' before the public, but it is a pity that no iron boiling pan has survived. It is to be hoped that documents will be discovered that will state where these pans were made; Sweden is a possibility.

Just as Buckler's Hard has a romantic attraction as a ship building centre that died, and being isolated, retained something of its 18th century character, so the deserted winding creeks of the Pennington and Keyhaven Marshes seem especially evocative of the past. North-east of the Council dump meander the Pennington saltern creeks and particularly impressive is the Keyhaven creek, because of the medley of ponds and banks near its terminus, with rectangular banked pans still easily discernible despite ploughing. In January 1966 Ministry approval was given to Amey & Co. to excavate for sand and gravel from 151 acres on Pennington and Oxey Marshes. It is to be hoped that the Pennington creek and its branches will be allowed to remain. Garrow's remark in 1825 that these marshes were dangerous to walk over at night is still true today, for the long-disused creeks and banks obstruct free passage over the marshes, but that is no reason why these reminders of the past should be removed.

To ascertain the precise dimensions and positions of the hundreds of evaporation pans between Lymington and Sturt is now impossible, though Tithe Maps do identify a few, such as Mr. St. Barbe's Troytown and Flatfarm salterns. The best tool for the local historian would be a helicopter; one needs to be able to hover and then descend

where banks are visible, despite the levelling done in the last 140 years. Some would still show up from the air, for an R.A.F. aerial photograph of less than 10 years ago (March 1956: 540/1808: F22/0020) shows the marshes honeycombed with masses of tiny squares and rectangles. These areas are even more clearly visible on the air photos taken in May 1961 for the O.S. (see Nos. 048 and 061 etc.). On the ground these pans frequently measure 10 yards along one side, but there is undoubtedly a great diversity in the sizes of individual pans. Other air photos show that Saltern Lane, so named on the 1720 estate map of Milford, still forms a definite field boundary and that a chequer board pattern still exists at its seaward end. The ghost of an ancient industry can still be seen on the marshes (pl. V).

One member of a well known Woodside family, Mr. Bran of Poles Lane, lived to the age of 96; he used to relate the story that he was probably the last person to make use of Lymington salt, for as a boy he was sent by his father for a barrow-load from the deserted salterns to cure a pig that had just been killed. He said he could also recall coal barges coming up the local creeks. He died in 1956, only twelve years ago.

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ORIGINAL MAPS

1. E. Dummer and Capt. T. Wiltshaw - 2 ms. Maps, 1698, showing saltworks on maps of Lymington River and area around Hurst (Red House Museum). (See pl. IV.)
2. Estate Map of part of Milford, 1720, drawn for A. Hopegood (Milford-on-Sea Record Society) (used in my pamphlet 1965). (It shows three evaporation areas east of Sturt pond and a lane then called Saltern Lane.)

THE SALTERNS OF THE LYMINGTON AREA

3. Early 18th century map of coast from Hordle eastwards, drawn for the Duke of Montagu. It shows 11 salt houses and 8 windpumps in the present Lymington borough area.
4. Tithe Maps of Milford and Lymington.

ORIGINAL ILLUSTRATIONS

1. Sketch of a boiling house, a cistern, pans and windpumps – by E. King, author of *OTR* 1st edition; he died in 1885. (Owned by his grandson, Mr. E. King.) (Used as cover sketch in my pamphlet, 1965.)
2. A watercolour of 1822, probably by Mrs. Woodward. Bought from a Winchester art dealer, eight years ago; now in private hands.
3. Oil painting of a boiling house and two pumps, one with its sails neglected. This was given by Miss Ouvry, then at The Saltings, Pennington, to Mrs. Hill of Creek Cottage nearby.
4. Watercolour of a boiling house, unsigned but bearing on the mount 'The Salterns, Lymington, 1840'. It was printed in *Milford Rec. Soc.*, vol. i, no. 5 (1912), and ascribed to Wm. Colborne. The original is owned by Mr. J. James of Hordle. (Pl. VIa.)
5. 'The neather platt for the Furnaces' – a Tudor plan, P.R.O. SP12/40/12(1).
6. Pencil sketch in T. T. Colbourne's 1841 sketch book of Dimmick's and Tizard's salt works. (Owned by Mr. J. James.)

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See Agricola's and Brownrigg's in Bridbury's book above.
The Illustrated News, 15th August, 1868, shows oyster beds at Hayling.

PROCEEDINGS FOR THE YEAR 1967

PRINTED MAPS

- 1791 – Faden's map of Hampshire.
- 1795 – Map of Borough of Lymington, showing Vienna saltern by the toll bridge. Printed in *Records of New Lymington* by C. St. Barbe (c. 1865).
- 1811 – O.S. 1-inch map. (Pl. III.)
- 1826 – C. and J. Greenwood's map of Hampshire.
- 1871 (surveyed by Sanford in 1867) – O.S. 6-inch map, sheet lxxxviii.
- 1947 – O.S. 2½-inch map, sheet 40/39.

AIR PHOTOGRAPHS

- March 1956 – 540/1808 and F 22/0020 (Min. of Housing).
- 13th May 1961 – No. 048 and 061 etc. (Ord. Survey). (Pl. V.)