Clay Smoking Pipes and Pipe Makers of Maldon

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CLAY PIPES AND PIPE-MAKERS OF MALDON, ESSEX

Arthur C. Simpson

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1. INTRODUCTION

This report describes the clay smoking pipes that I have studied as the result of a brief letter of appeal published in the Maldon & Burnham Standard on 26th May 1981, asking anyone who had found clay pipes in their houses or gardens to allow me to borrow them for study. As a result I have been able to examine the pipes, bowls or pieces of bowls and stems from over 200 pipes from 29 localities in and around Maldon, in addition to over 30 from my own garden.

One of the first results of the study was a realisation that there are two distinct sources of clay pipes found in the vicinity of Maldon. During the making of the Maldon – Woodham Ferrers railway line in 1889, considerable quantities of refuse from London were used to complete the embankments to the line between the Maldon East station and the newly constructed viaduct across the Blackwater estuary. This London refuse contained considerable numbers of broken pipes as well as bottles and other items resistant to decay. When the line was closed it became a happy hunting ground for such items, and a number of sizeable collections of clay pipes from the embankments have been made by residents of Maldon.

The pipes in this refuse will have been largely made and used in London in the middle and latter half of the last century when the making of highly decorated pipes was in its heyday, and indeed these collections contain many fine examples of these varied designs.

The second source of pipes found in Maldon is the local smoker who threw away or dumped his pipe when broken or no longer usable.

This study is concerned only with these latter pipes, as the study of the range of pipes found on the railway embankments is a part of London's history rather than that of Maldon.

I wish to thank all those who have so kindly lent or given me pipes or pieces of pipes, without which this study would have been impossible.
2. DESCRIPTION OF PIPES FOUND IN MALDON

The pieces of pipe which form the basis of this report provide a remarkable series covering about 270 years from about 1630 to 1900. Tobacco was introduced to Britain in 1558 and by 1600 tobacco smoking, using clay pipes, was widespread and may well have already reached Maldon, though no pre-seventeenth century pipes have yet been found in the town.

In order to provide a record of the variety of pipes that have been found in Maldon, examples of the majority of the forms are described and shown as simple outline drawings at their natural size (Figs. 1-3). A list of the localities where they were found is given as an appendix to this report and the reference numbers used there are also given against the drawings, which allows them to be related to the sites where they were found.

The determination of the approximate dates of manufacture of these pipes has been based on the works of Atkinson and Oswald (1969), Harley (1976) and Ayto (1979).

The main criteria used have been the well established sequence of changes in the shape and size of the bowl; the angle made between the plane of the top of the bowl and the axis of the stem; the development of ornamentation during the latter part of the eighteenth century and its great blossoming after about 1850; and the progressive reduction in the diameter of the hole through the stem from about 3.5 mm in the early 1600s to 1.5 mm in the mid-1800s.

Some of the pipes found in Maldon can be assigned with certainty to particular makers whose dates are known, and others with less certainty. All of these are described in detail in Section 3 and shown in Figs. 4 and 5.

Among the pipes examined in this study, the earliest have small bulbous bowls typical of the first half of the seventeenth century (Fig. 1, Nos. 150, 149 and 217) and probably date from 1625 - 1650. None have been found with the very small bowl characteristic of the very early pipes made before about 1630.

Virtually all pipes made before 1700 had bowls which slanted forward when the stem is horizontal, which makes them readily recognisable. As the century progressed the bowls became larger and less bulbous until towards the end of the century many had quite straight sides. This progression is seen in Fig. 1 as a whole.
Throughout the seventeenth century the base or foot of the bowl was typically, but not always, short and wide and its base was in line with the stem so that it would rest securely upright when placed on a flat surface. All the seventeenth century bowls were plain except for a fine milling impressed on them just below the rim, though in some cases it was poorly executed and hardly recognisable. The diameters of the holes in the stems varied between 3.3 and 2.7 mm, although one piece of stem found in the same Fambridge Road garden as bowls 149 and 150 had a hole which was 3.6 mm in diameter.

None of the pipes found in Maldon appears to have been hand-made as they all showed evidence of the mid-line mark made where the two halves of the mould come together.\(^1\)

With the introduction of the gin-press\(^2\) in about 1700 the bowls became more upright and the tops of the bowls were trimmed off roughly parallel with the stem. During the first half of the eighteenth century the pipes remained undecorated except that the initials of the maker began to be put on the sides or base of the foot. It was not until after about 1750 that ribs and simple patterns on the bowls and stems started to become common. Quite a number of the pipes found appear to have come from the eighteenth century and these are shown in Fig. 2.

Plain pipes and pipes with simple designs, including ribs down the bowl and oak leaves and acorns or wheat ears down the front and back of the bowl, continued to be the commonest forms after 1800. However, by 1830 military crests and a variety of more ornamental designs were being introduced, and by 1850 highly decorated bowls and stems with birds' claws, heads of notable people, knobs, animals and a variety of other subjects became very common. The pieces of pipes found in Maldon that were made during the last century and possibly the first few years of this century are shown in Fig. 3.

Apart from the pipes found on the railway embankments, the pipes found in Maldon that date from the late 19th century are relatively few and outnumbered by the pieces of pipe probably made in Maldon during the first half of the century and which are described in Section 3 of this report.

\(^1\) At first, clay pipes were hand shaped, but soon they were made in simple metal moulds constructed in two halves.

\(^2\) The gin press was a device that held the mould in a clamp and had a lever operating a stopper which formed the inside of the bowl. See Ayto's book "Clay tobacco pipes" for a description of pipe making.
Initials and marks on spurs.

During the eighteenth century, when the broad short foot at the base of the bowl was replaced by a longer and narrower spur, many makers began to put their initials on these spurs. With the pipe in front of you as though it was being smoked, the left side of the spur has the initial of the Christian name and the right hand side has that of the surname. The letter J was introduced into the English language only during the seventeenth century and I and J remained interchangeable well into the 19th century, with the result that many pipe makers with Christian names such as John, James and Joseph, put I for their first initial.

The presence of initials is not a close guide to the date or place of manufacture of a pipe as initials were included by many pipe-makers all over the country from about 1720 onwards.

The following is a list of the initials on pipes found in Maldon, given in order of the surname initials. Against each pair of initials are my reference numbers of the pipes with these initials. Numbers in brackets indicate that one or other initial is not clear enough for certain identification.

E C 2-15
R C 234
I D 1, 74, 77A-D, 154-8, 161, 177, 198, 213, 214, 216 probably John Dunnett, Maldon.
I E 117
I H 18
E L 16
I P 83, 122 John Pepper, Maldon.
E R 189
I R 203
S R 197
? R 126
W R 225
C S 21, 204 possibly Clifford Smith, Maldon.
H S 104
S W (89) possibly Samuel White, Maldon.
W W 17
Some pipe-makers put distinctive marks rather than initials on the spurs of their pipes. Among the pipes from Maldon only four such marks have occurred. The one most commonly found was the six lobed rosette of the Maldon-made Pepper and Colman pipes (Fig.4). The Pepper pipes with the rosette are Nos. 82, 84, 121, 143, 144, 200 and 206 and the two Colman pipes, Nos. 136 and 218.

Two of the other marks were small shields, one with a sword (Fig.3, No.174), and the other with a portcullis (Fig.3 No.63). No link has been found with particular pipe-makers who used these two marks, however both of them occurred also among pipes from the railway embankment, indicating that the two in this study (Nos.63 and 174) were probably made in London between 1850 and 1889. One piece of pipe found on the allotments at the Hythe has a rough X on either side of the spur (Fig.5, No.230).

Inscribed marks

Most marks on the bowls and stems of pipes are in relief, standing out from the smooth surface of the pipe, having been recessed into the surface of the metal mould. However some pipes had names and patterns cut into them before the formed clay pipes were hardened by firing. One example is from two pieces of stem (Nos.168 and 169), from different pipes as the pattern overlapped, found in the same garden (Fig.5). The name DENTON is incised round the stem, with simple whorls above and below the name. The diameter of the hole is 2.0mm.

Another incised pattern comprised the letters W.B. inside a garland cut into the back of the bowl of an otherwise plain pipe (No.173).

Makers names on the bowls and stems.

While many of the London pipes from the railway embankment carried the names and localities of the makers, only a few of those smoked in Maldon carried this information. There were however two Maldon pipe makers who put their names, "PEPPER" and "COLMAN", on one side of the stem and "MALDON" on the other (see p.8 and Fig.4).

There was also a heavily built plain bowl (No.114) with a faint milling round the rim and a badge at the back of the bowl with the number "139" in the centre and the name "FRANCIS.S." below. Faint writing at the top of the badge was illegible. This pipe may have been made by Francis Stone a London pipe maker in 1832, or by Francis Sutton of Retford, London in 1835 (Atkinson and Oswald, 1969), but there is no proof of this.
6.

The following pieces of broken stem carried names or parts of names:

No. 135 had the last four letters of a name on one side and "LONDON" on the other side. The four letters were not very clear and were C or L, L, E, and R or D.

No. 171 had "BURNS·CUTTY" on both sides, which is interesting, as this piece of stem was presumably from a short 'cutty' pipe made in Scotland (Ayto, 1979, p.10).

No. 179 had "COR.." on one side, while the other side was too damaged to be legible.

3. MALDON PIPE MAKERS AND THEIR PIPES

From the pipes themselves it has not been possible to learn much conclusively about who made pipes in Maldon and when, or where they operated, or which pipes they made. The only definite information on this that the pipes have given is from the pipes with MALDON on one side of the stem and either PEPPER or COLMAN on the other. This is pretty certain, but not conclusive evidence that these pipes were made in Maldon by a Mr. Pepper and a Mr. Colman, and from their form etc. these pipes were probably made between 1790 and 1830.

To get more information on Maldon's pipe makers a study was made of Trade Directories and the national Census records. The earliest Trade Directory to cover Maldon is Volume 4 of Bailey's British Directory for 1784. This was followed by Directories for the years 1793, 1798 and 1823/4. The 1823/4 Directory was the first of a more or less regular series by Pigot, the Post Office and Keliy that were produced every few years up to about 1930. The Directories from 1784 to 1899 have been examined and the records of pipe makers in Maldon noted. None have been recorded for Heybridge. These directories were far from complete in the early years and only after 1850 did they give information by streets.

The national Census started in 1801 and has been repeated every ten years since then. The original records included the name, age, occupation and birthplace of each citizen. The original, unsummarised records for 1801, 1811, 1821 and 1831 do not survive, but all later ones do. Those for the years 1841 to 1871 have been examined to find pipe makers in Maldon and have proved very informative, giving also the street, but not the house number, for each household.
The registers of marriages for the Parish of St. Mary's were also examined for the years 1575 to 1864, but they give no information on occupations.

Using the information from the Trade Directories, the Census returns and the limited written material on clay smoking pipes in Essex, the makers of clay smoking pipes in Maldon have been set out below in chronological order, starting with the earliest. Any links between these pipe makers and the pipes they made, or may have made, are described and discussed under the appropriate pipe maker.

CLIFFORD SMITH 1750 - 1780

Molle (1972), in his thesis, refers to two pipes found in Maldon which had on the backs of the bowls the words "CLIFFORD SMITH AND SON N St" inscribed round the inside of a circle, with the number 49 in the centre. Molle believes that these pipes, made by Clifford Smith, were made at 49 North Street, Maldon. He also considers from the shape of the pipes that they were made between 1750 and 1780.

Among the present collection are two pieces of pipe with the initials C S on the spurs, ridges down the bowls and marks like bird footprints on the stems (Fig.5, Nos. 21 and 204). These two pieces are clearly from the same mould, though one piece was found at the Hythe while the other one came from Fambridge Road. There is no name on the bowl.

There is no conclusive evidence that a Clifford Smith was in fact making pipes in North Street, Maldon; nor is there any evidence to link the pipes with CS on the spurs with Clifford Smith or with Maldon. If Molle's dating is correct we cannot unfortunately look to either the Trade Directories or the Census for help. It must therefore remain an open question whether Clifford Smith was a Maldon pipe maker or whether the pipes with CS on the spurs were made by a Clifford Smith or made in Maldon.

Pipe makers with the initials EC, RC, EL, IW, WW, and CS 1750 - 1830

In view of the importance of the Hythe area as a centre of pipe making in Maldon (see later), reference is now made to a considerable number of pieces of pipe which have been found on the open land and a ditch adjacent to the Hythe and opposite the Queen's Head public house, which may have been made in Maldon and which, from their shape, were made between 1750 and 1830.
Part of this land and the ditch have now been asphalted over, but I have been able to examine 22 bowls and spurs or stems and spurs from the ditch before it was filled in. Among the 22 pieces were 15 which were quite plain except that all had the initials EC on the spurs. Among these 15 there were four distinct variants in the size and angle of the bowls; two of these are shown in Fig.2 (Nos. 6 and 11). Among the other seven, four were plain pipes of similar shape but with the initials RC, EL, IH and WW; two more had fluting down the bowls but no initials on the spurs; while the last of these seven was one of the two with CS on the spurs previously described under Clifford Smith. All 22 pipes had stem holes of 1.8 - 2.0mm diameter.

While these pipes may have been throw-outs from a kiln nearby it is also possible that they were made elsewhere, imported to Maldon, sold or given away with tobacco bought at the Queen's Head and when broken, dumped with other refuse in the ditch opposite.

BATLEY ADAMS 1792 - 1798

The name of "Batley Adams, pipe maker", appears in the directories of 1792 and 1798 but not in that of 1784 nor in the directories of 1823 and onwards. Among the pipes found in Maldon there were three which had on the spurs clear and identical Bs on the left hand side, one had a clear A on the other side while the other two had letters that were too damaged to be sure what they were. One of these pipes was almost complete (Fig.5, No. 211), the others were only parts of stem with the spur (Nos. 88A and 88B).

Molle (1972) reports the finding of a plain pipe in Maldon with the initials BA on the spur, and, from the shape of the pipe, he considered it to have been made between 1750 and 1780.

It seems very probable that these pipes were all made in Maldon by Batley Adams, but we have no proof of this. The design and the hole diameter of 1.8 mm suggest that they were made some time between 1760 and 1820, and the 1790s are well within that date range.

JOHN PEPPER probably between 1810 and 1830

The finding of several pipes with PEPPER-MALDON on the stems and I and P on the spurs of some of these, is strong evidence that a Pepper with the first initial I or J was making pipes in Maldon. However neither the trade directories nor the census returns include a pipe maker by the name of Pepper. Both do, on the other hand, record a family of Peppers living in
London Road in which the father and son, both Henry Pepper, were watch and clock makers between 1823 and 1851, though the father died between 1841 and 1851. The only reference to a John Pepper that has been found was in the County Polls for 1830, where the names of Henry and John Pepper appear together (ERO T/P 232/6). This finding suggests, but does not prove, that this John Pepper was the pipe maker and that he was well established in the community by 1830, though there is nothing to show that he was making pipes in that year. The fact that there were no directories covering Maldon between 1798 and 1823 suggests that it may have been during these years that John Pepper was making pipes.

Thirteen pipes or pieces of pipe from eight sites were made by Pepper and these show that there were at least three slightly different designs, and therefore that he had used at least three different moulds. All the bowl fragments showed that the bowl was on the small side and carried 11 ridges running from 3-4mm below the rim to the base of the bowl. The spurs carried either a 6-lobed rosette on each side or the letters I and P. There were seven with the rosette (Fig.4, No. 206) and one (No. 83) with the letters. In addition there was one piece of pipe (No. 122) that had just the letters I and P on the spur and ridges on the bowl, but no name or decoration on the stem.

One of the most complete examples of a pipe made by Pepper (Fig.4, No. 206) was found in the brickwork of the tower of St. Mary's Church during repairs to the tower in 1982, and probably left there during restoration work in 1844.

Lawrence Harley (1976), in his booklet "The clay tobacco-pipe in Britain, with special reference to Essex and East Anglia", has only one reference to Maldon and this is to a piece of stem bearing the words PEPPER and MALDON, which had been found in Colchester. One of the PEPPER pipes in this study (No. 200) was found in Burnham-on-Crouch.

COLMAN probably between 1800 and 1830

That there was a Colman making pipes in Maldon seems certain from the two pipes with COLMAN and MALDON on the stems found in Maldon, though, like Pepper, his name does not appear in the directories or in the census records.

The two pieces of pipe are identical and very similar to those made by Pepper though differing from them in the details. The Colman pipes (Fig.4 No. 218) have 14 ribs on the bowl, 6-lobed rosettes on either side of the spur, and while the lettering on the stem is very similar to that on the
Pepper pipe, the pattern round the words is rather different. It is probable that these two Maldon pipe makers obtained their moulds from the same source and were either working at the same time or one directly after the other. It seems unlikely that the plain pipes with EC on the spurs (previously described) were made by Colman, as they were at least 30 years earlier.

JOHN DUNNETT North Street 1835 - 1862
FREDERICK DUNNETT North Street 1851

The census records show that between 1841 and 1861 there must have been at least three families involved in pipe making, living and probably making their pipes in the area of the Hythe. These were the Dunnett, Hutchinson and Knight families. Of these three, only John Dunnett appears in any of the trade directories and his name appears in all of them from 1835 to 1862.

In the census returns for 1861 there is a note that John Dunnett, pipe maker, employed one man and four boys and it seems probable that he ran the pipe making workshop and kiln and that the other pipe makers of the period were either working with him or for him or on a very much smaller scale. This is supported by the fact that by far the commonest pipes in this study were ones with the initials JD or ID on the spurs while pipes with H or K for the surname initial have not been found.

John Dunnett, who was born in Ipswich in 1795, appears in the St. Mary's parish register as marrying Maldon-born Mary Anne Rivenall in 1819. He was forty years old when his name appeared in the 1835 directory, though he may have been making pipes before this in Ipswich or Maldon on his own account or for others. He will have been 67 when his name appeared for the last time in 1862. He had two sons and two daughters and of these one son, Frederick, was recorded as a pipe maker in the 1861 census when he was 24 years old. The census records give the Dunnett family as living in North Street in 1841 and 1851 and in the Hythe in 1861, while the directories refer to him as operating from the Hythe from 1839.

The two earliest directory records (1835 and 1839) give the name as Jno Dunnett, while the later directories and the census records (1841-1861) give John Dunnett. It seems probable that these all refer to the same man as Jno was commonly used for John.

As mentioned above, the commonest pipes in the collection had JD or ID on the spurs and it seems virtually certain that these were made by John Dunnett and his co-workers over a period of 27 years or more.
There were five pieces of pipe with JD on the spurs but these were all little more than short pieces of stem with the spur and only the base of the bowl, as shown in Fig. 4, No. 160B. However there was enough of the bowls to show that they were plain, except for a pattern of small ears of corn down both the front and the back.

There were 32 pieces of pipe with ID on the spurs, or which were clearly parts of pipes with these initials, and these fell into five distinct patterns shown in Fig. 4, ie Nos. 128, 154, 74, 1 and 198. Of these, the first (No. 128) had a very distinctive pattern on the stem. This pattern was readily recognised on a number of pieces of broken stem from different localities.

The 32 pieces could be allocated to these five patterns as follows:

- No. 128 10 pieces from 4 localities
- No. 154 5 pieces from 3 localities
- No. 74 2 pieces from 1 locality
- No. 1 7 pieces from 4 localities
- No. 198 8 pieces from 3 localities

JOHN HUTCHINSON North Street and Church Street 1841-1861
AMBROSE HUTCHINSON North Street 1851
HENRY HUTCHINSON Church Street 1861

"John Hutchinson - pipe maker" and his family appear in the census returns for 1841, 1851 and 1861 but his name does not appear in any of the directories nor do his initials appear on any of the pipes. This suggests that he may have been working with or for John Dunnett who was twelve years his senior. John Hutchinson was born in Yorkshire in 1807 but lived with his family in North Street from sometime before 1841 until sometime between 1851 and 1861 when they moved to Church Street on the other side of the Hythe. John Hutchinson had four sons and three daughters and the second son, Ambrose, was recorded as a pipe trimmer when he was 15, in 1851, and his younger (step)brother Henry was recorded as a pipe maker at the ripe old age of 11, in the census of 1861. It is clear that the Hutchinson family were much involved in pipe making over at least 20 years, but by 1871 the family had moved from the Hythe area and were no longer involved in pipe making.

SAMUEL WHITE Wantz Road 1841

Samuel White, aged 32, is recorded in the 1841 census as a pipe maker living in Wantz Road, but his name does not appear in any of the trade directories or in the later census records.
One piece of pipe (No. 89), comprising a piece of stem with the spur but no bowl, had the initials S and W and might have been made by Samuel White, however the W was not very clear and there is no confirmation of any link between the initials and Samuel White.

DANIEL MULLINS Wantz Road 1851

Daniel Mullins, aged 42, is recorded in the 1851 census as a pipe maker born in Middlesex and lodging in Wantz Road. His name does not appear in any of the directories or the 1841 or 1861 census records, nor have any pipes with his initials been recorded from Maldon.

It is possible that he was only visiting the town and was "caught" by the census, though it is also possible that he did live in Maldon and was involved in pipe making.

JOSEPH KNIGHT North Street 1851
JAMES KNIGHT North Street 1851

The 1851 Census includes Joseph Knight, aged 29 and born in Maldon, as a pipe maker, and James Knight aged 13 as a pipe trimmer. Both were living in North Street, but in different households. There is no other information about them and it seems probable that they were part of the group making pipes in the Hythe area and may have been working for John Dunnett. No pipes have been found with their initials.

WILLIAM PREBBLE The Hythe 1866-1874
GEORGE KEEBLE Snr North Street 1871
GEORGE KEEBLE Jnr North Street 1871
WILLIAM KEEBLE North Street 1871

These names have been put together as it is possible that the names Prebble and Keeble have become confused.

"William Prebble, tobacco pipe maker, Hythe" appears in the Pigot directories for 1866, 1870 and 1874, but not in earlier directories or in the 1871 Census. On the other hand the only pipe makers recorded in the 1871 census is the Keeble family living in North Street, of whom George Keeble aged 45 and his two sons, George and William, 18 and 14 years old respectively, are all entered as tobacco pipe makers. Keeble is a well established Maldon name while Prebble does not occur elsewhere. It seems probably therefore that the directory entries really refer to the Keeble family.
None of the pipes found show any link with the names or initials of Prebble or Keeble.

JOHN KERRIDGE High Street 1878 1886

John Kerridge's name appears in the directories between 1878 and 1886, but against the entries is the description "tobacco pipe dealer", suggesting that he bought and sold pipes, rather than made them. However at the end of the 1886 directory is a summary of people in Essex grouped under their trades, and under "tobacco pipe makers" is included John Kerridge of Maldon.

No pipes with his initials or that can be linked with him have been found and it seems probable that the entry "tobacco pipe dealer" was correct and that he did not make pipes.

From the information derived from these Trade Directories and the Census returns it is clear that during the 36 or more years from about 1835 to 1871, at least four families were actively involved in pipe making, and their activities were centred in the area of the Hythe. However, among the pipes of this period found in Maldon, only those made by John Dunnett have been positively identified, suggesting that Dunnett may have owned the workshop and kiln and that members of the other families worked for him. It is interesting to note that there is no evidence of the kinds of pipe made by Prebble or Keeble, who were making pipes at the Hythe for the next eight or ten years after Dunnett stopped about 1864. It is possible that these latest pipe makers had turned to making the more ornate pipes characteristic of the second half of the century, which did not include initials or identifying marks.

Going back before 1835, it is probable that John Pepper was the main pipe maker during the first decades of the nineteenth century and Batley Adams in the latter part of the eighteenth century.

Counting up the pieces of pipe found in and around Maldon which were probably made between 1780 and 1870, as determined by their shape, there were 108. Of these, 53 - just half - were from pipes made by Adams, Pepper, Colman and Dunnett; that is, almost half were definitely made in Maldon. This suggests that probably for at least a number of years before 1780 there were also many pipes made in Maldon, but lack of Trade Directories or other evidence makes it impossible at present to confirm this.
Enquiries concerning the possible site or sites of the kiln or kilns that were used for firing the pipes have been inconclusive, with three sites being suggested. The first is that suggested by Molle at 49 North Street on the corner of Downs Road, the second is opposite the Queen's Head, near where the 22 pieces of pipe were kept from among a large number originally found, and the third is on the site of the present Little Ship Club. Apparently the Little Ship Club stands where there was previously the workshop of a 'white-smith', a worker in metals other than iron, and a local resident asserts that this white-smith made pipe moulds and had a kiln for firing pipes. However it has not yet been possible to substantiate definitely any of these positions.

SUMMARY
On the available evidence, smoking was already well established in the town and neighbourhood by about 1630. It is probable that many of the pipes smoked were made in the town and the records show that at least during most of the last century, the centre of pipe making was at the Hythe. A number of families involved in pipe making between 1792 and 1870 have been identified, but almost certainly pipe making was already well established in the town much earlier.

While the designs of pipes made by John Pepper, Colman and John Dunnett have been identified with considerable certainty, there is still much to be done to link together other pipes with their makers and to establish the dates of these pipes with certainty so that this information can be of value in dating structures and other items associated with them when found.
4. REFERENCES.


Trade Directories that include Maldon.

Post Office Directory. -1845, 1851, 1855, 1859, 1862, 1866, 1870.
Post Office Directory of the Six Home Counties. -1874.
Post Office Directory of Essex. -1878.
Kelly's Directory of Essex. -1890, 1898.
APPENDIX. Summary of the reference numbers of the pipes and pieces of pipe studied and the localities from which they came.

<table>
<thead>
<tr>
<th>Reference no.</th>
<th>Locality.</th>
</tr>
</thead>
<tbody>
<tr>
<td>46 High St, Maldon.</td>
<td>Mrs Gordon.</td>
</tr>
<tr>
<td>During demolition of Ife's shop, 1967.</td>
<td></td>
</tr>
<tr>
<td>2-21</td>
<td>28 The Hythe, Maldon</td>
</tr>
<tr>
<td>49-53</td>
<td>Longfield allotments, Maldon.</td>
</tr>
<tr>
<td>63</td>
<td>165 Holloway Rd, Heybridge.</td>
</tr>
<tr>
<td>95,190</td>
<td>19 Beeleigh Rd, Maldon. Garden.</td>
</tr>
<tr>
<td>96-99</td>
<td>Saltings, Beeleigh.</td>
</tr>
<tr>
<td>101-104</td>
<td>Bradwell beach.</td>
</tr>
<tr>
<td>116-146</td>
<td>St Peter's churchyard, Maldon. Finds by Maldon Archaeological Group during work on the foundations for the seats facing the High Street, provided by Maldon Rotary Club.</td>
</tr>
<tr>
<td>147-171,196, 199,204-5, 213-216</td>
<td>106 Fambridge Rd, Maldon. Back garden.</td>
</tr>
</tbody>
</table>
181-186 Field between London Road and and Beacon Hill, Maldon. S. Nunn.

187-189 Dredged or trawled from the Blackwater, Maldon. S. Nunn.

191-2 47 High St, Maldon. Back yard. MAG Ref. BL/78-11.

193 High St, Maldon. Trench in road, near North Street, Maldon. R. Finch.

194 Dredged from canal near Beeleigh. R. Finch.


200 Burnham-on-Crouch E. Rees.

201-2 Mayland beach. E. Stamp.


228-9 Cromwell Lane, Maldon. Disused rubbish dump. S. Stubbings.
FIG 1 17TH CENTURY PIPES
FIG 2 18TH CENTURY PIPES
FIG 3 19TH CENTURY PIPES
FIG 4 PIPES MADE IN MALDON