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Clay Tobacco Pipes from Excavations in Flint and the Pipemakers of North-East Wales

D. A. Higgins

Introduction

During 2015 and 2016 Archaeology Wales Ltd carried out three large-scale urban excavations in the south-west quarter of the Medieval town of Flint, which is in the north-east corner of Wales, close to the English border (Fig. 1). The exavations at Dukes Walk (DWF), Earl Lea (ELF) and the Police Station (PSF) produced a total of 570 fragments of pipe (Fig. 2), making this one of the largest assemblages to have been recovered from North Wales. There are very few sites from the Flint area where pipes have been published and, where they have been, they often comprise only one or two pieces (e.g., Markell 1975-6; Rees 2017). This material comes from a number of urban plots and spans some 300 years of the Post-Medieval period. As such, it allows a broader assessment of the changing trends within the community as a whole and, in particular, a comparison of the pipes being used in a Welsh town (Flint) as opposed to the much larger urban assemblages from the nearby English settlement at Chester.

At a broader level, this assemblage raised a whole series of questions regarding the manufacture and supply of pipes to this part of Wales. In England, the neighbouring pipemaking industries of Merseyside, Cheshire and Shropshire have all been well studied, but only one site in Buckley had received similar attention in north-east Wales (Bentley, Davey and Harrison 1980; Higgins 1983). Basic research to try and find parallels for the Flint pipes and to identify possible makers soon revealed distinctive local styles of pipe as well as numerous previously unrecorded makers, who were operating from the seventeenth century onwards. An initial list of these pipemakers has been compiled, showing that north-east Wales had a substantial pipemaking industry of its own and that this, in turn, formed part of a broader band of activity extending right down the borders and into Herefordshire. This not only reflects an early and enthusiastic adoption of the new habit of smoking across this region, but also shows that northeast Wales must be considered when looking at the broader production and distribution of pipes across the country.

The Pipes as Archaeological Evidence

The pipes from Flint have been individually examined and a detailed context summary for each group prepared, which includes a description of the material from each context, including all the more diagnostic fragments (Appendix 1). All of the stamped marks have been added to the national clay tobacco pipe stamp catalogue, which is being compiled by the author with a copy held in The National Pipe Archive (http://www.pipearchive.co.uk/). The unique cast number in the catalogue for each mark

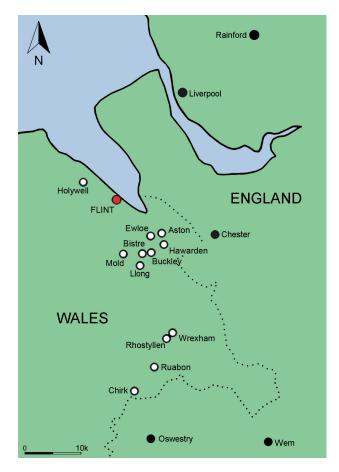


Figure 1: Location map showing Flint and the surrounding places in north-east Wales where pipemakers are recorded (open circles). English pipemaking centres are shown in black.

Site	Bowl	Stem	Mouthpiece	Total
DWF	39	90	12	141
ELF	66	266	7	339
PSF	16	61	13	90
Total	121	417	32	570

Figure 2: The numbers of pipe fragments recovered from the 2015/16 excavations by site and type.

is given in the context summary. The summary also gives two assessments of the date for the pipe fragments from each context: the 'range' represents the maximum chronological spread represented by the fragments, which often includes stems that can only be broadly dated, while the 'deposit' gives the most likely date of deposition for the group, based on the more closely datable fragments present combined with an assessment of the range and nature of the material present. These dates are based entirely on the pipe fragments and do not take account of any other artefactual or stratigraphic evidence from the site.

The context summary provides details of the excavated pipe groups, including those with closely dated or key groups of pipes. In total there were 93 groups of pipes, about half of which included fragments that could date from as early as the seventeenth century. In contrast, there were

no good context groups that contained only seventeenth century material, although a quarter of the groups could be dated to somewhere between the late seventeenth and mid eighteenth centuries. This shows that while seventeenth-century material was quite widely present within the excavated deposits, much of it was disturbed and it is only from the late seventeenth to early eighteenth century onwards that apparently coherent deposits were found. Even then, the majority of these occurred as small groups containing ten or fewer fragments, which is too few to provide very reliable dating evidence. Only 14 of the 93 context groups produced more than ten fragments of pipe, and all of these groups date from c1700 or later. A mixture of eighteenth and nineteenth-century deposits are represented that, taken together, provide a reasonably good outline of the pipe styles being used in Flint during this period. A representative range of the fragments recovered is shown in Figures 7 and 8.

There are some interesting groups amongst the assemblage, such as ELF/15/EX (3182), which comes from the fill of ditch [3216]. This includes three near identical Chester style spur forms of c1710-50. They are good quality products and probably from three different moulds although all have very similar bowl forms, one of which is complete (Fig. 7.3). They look like a tightly dated group from a household that favoured this particular style of pipe. ELF/15/EX (3027) was a group of 22 fragments from the fill of well [3207], which is likely to date from c1820-80. These pipes were generally of very poor quality although including one quite nicely decorated example with the initials TD in a shield facing the smoker (Fig. 8.24). Overall, this group includes a lot of cheap looking, poorly finished pipes, with several of the fragments showing signs of burning, most likely from having been discarded into a hearth before deposition. ELF/15/EX (30), the fill of a ditch, produced the largest assemblage (84 fragments), with a likely final deposition date of c1820-50. This context included two long, single-line stem stamps of c1770-1840, one of which was made by the Hayes family of Hawarden. This is a Liverpool style of stamped mark, usually reserved for the better-quality pipes produced, showing that some local products aspired to compete with the top end of the market. The majority of the pieces, however, are of very poor quality (e.g., Fig. 7.13), with even the more elaborate armorial fragment having somewhat simply executed detail, with hatched bars instead of lettering around the shield itself (Fig. 8.18). Perhaps the most interesting group is DWF/16/EX (2025), which came from pit [2035]. This was quite a large group (74 fragments) that provides a close dating of c1870-90 for this feature. The pipes in it came from a wide range of sources and were of differing styles and qualities that provide a useful insight into smoking habits at Flint during this period (Figs 8.23-8.30). These pipes are discussed in more detail in the following section.

The Pipes Themselves

As well as informing the dating of the excavated deposits the pipes have an intrinsic interest and contribute to a broader understanding of the production and consumption of pipes in this part of north-east Wales. The pipes are first discussed by period or specific attribute, followed by a wider discussion of the significance of this assemblage in its regional and national context.

Seventeenth Century

Seventeenth-century bowls are not very well represented in the assemblage; very few examples were present and those that were recovered were generally fragmentary and residual in their contexts. What is clear, however, is that a range of seventeenth-century stem fragments were present. Most were plain, but a few were burnished, indicating that both ordinary and better-quality pipes were in circulation. Similarly, most were made of fine imported fabrics, such as were used at Chester, while a smaller number were made of a coarse gritty clay that could be obtained locally from the Coal Measures. This gritty clay was not only available locally as part of the Flint Coalfield but was also exploited in the Rainford area to the north-east of Liverpool (Fig. 1), where a regionally important pipemaking industry developed from early in the seventeenth century as a result.

Eighteenth Century

Eighteenth-century pipes are much better represented and show that pipes from a variety of sources were being used in Flint. Locally produced pipes made of coarse Coal Measures clay were still finding a place in the market, as evidenced by a heel pipe made by Thomas Hayes in nearby Ewloe (Fig.7.1). At the same time better quality clay from the south-west of England appears to have come into use amongst the local pipemakers, for example, as used to make the distinctively shaped spur bowl shown in Figure 7.2. Pipes of this distinctive spur form are not very common in Chester but are well represented amongst finds from the Brookhill excavations in Buckley, some of which also employ moulded makers' marks, another trait not found in Chester (Higgins 1983, Figs 32-34 & 43). Production somewhere in north-east Wales seems highly likely for this style and an example in the Wrexham Museum collections has the possible initials TH moulded on the sides of the spur (86.247.11.8). If this reading is correct, then production by Thomas Hayes (or his son, also Thomas) in the Ewloe area seems probable.

Alongside locally produced pieces, there are quite a number of eighteenth-century bowl forms that are typical of Chester (e.g., Figs 7.3-7.6). These are not marked but the forms are distinctive, and they are of good quality, which is characteristic of Chester pipes at this period. Furthermore, there are five stems with stamped decoration from the excavations (e.g., Figs 7.7-7.8), which are also characteristic of Chester products. Chester was a major production centre at this period and specialised in producing stems with these ornately engraved stamps applied to them.

Towards the end of the eighteenth century, Liverpool rose to eventually eclipse Chester as a pipe production centre and the pipemakers there developed a range of bowls with ornate moulded decoration on them, often featuring Masonic emblems. A fragment from one of these bowls was found at Flint, suggesting that pipes from Liverpool were also starting to find a place in the market. Liverpool influence is also seen in the form of the long single-line stem stamps that were used to mark the pipes. The mark gave the maker's name and place of work and came into use in Liverpool around the 1760s or 1770s. This style was then copied in north-east Wales, with several examples made by the Hayes family of Hawarden being recovered from the excavations (e.g., Fig. 7.9).

Nineteenth Century

Nineteenth-century pipes are the most numerous and diverse from the excavations. Pipes dating from the first half of the nineteenth century typically had either plain bowls or bowls with just simple leaf decorated seams, although a few had more elaborate decoration that

included Masonic emblems (Fig. 7.13), swags (Fig. 8.15) and armorial designs (Fig. 8.18). The armorial design dates from c1810-1850 and is particularly interesting, since although the royal arms were quite widely used on pipes nationally, particularly from London and the south of England, they have not been noted from the large urban centres of north-west England, such as Chester or Liverpool. There are, however, three other examples known from the Flint area that are so similar that it seems probable that all four were made in the same mould (allowing for wear to the mould over time; Fig. 3). The most complete and sharply moulded example was found in dredgings at the side of the canal just north of Chester city centre (approx. SJ 399674) and subsequently given to the author (81119.3; Fig. 3a). The bowl is decorated with a rather crudely executed armorial design that is clearly intended to depict the royal arms. There is a crowned oval with a hatched border containing some poorly defined

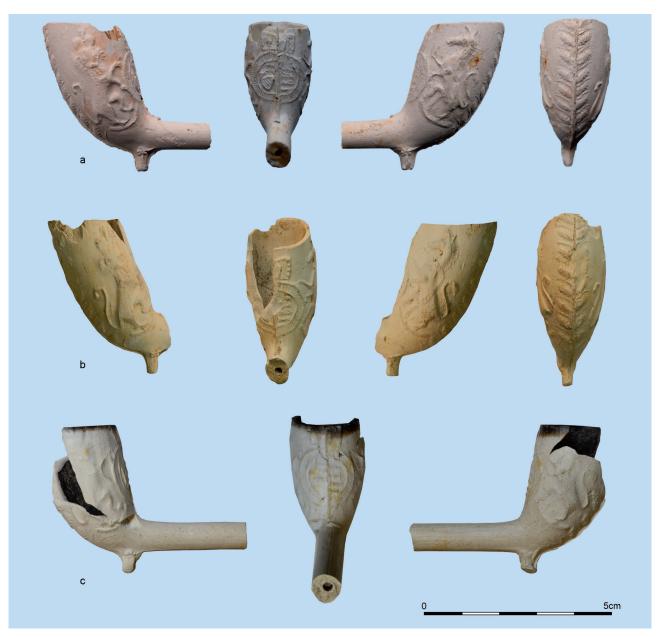


Figure 3: Three examples of an armorial bowl dating from c1810-50 that were probably all made in the same mould: a. from beside the canal in Chester (author's collection 81119.3); b. from Drury, Flintshire (PAS: LVPL-15E782); c. unprovenanced example in Wrexham Museum (86.247.11.6 and 86.247.11.20).

symbols facing she smoker (perhaps two passant lions above a harp on the left side and four passant lions on the right), flanked by standing supporters in the form of a crowned lion and a unicorn. On the spur sides is a symbol mark comprising a flower-like motif with a 'stalk' below. Another example has been found at Drury, between Hawarden and Buckley in Flintshire (Portable Antiquities Scheme: LVPL-15E782; Fig. 3b). This was clearly made from the same mould as the Chester example since there is a distinctive flaw immediately above the flower on the right-hand side of the spur, running towards the front of the bowl. The final example is in the Wrexham Museum collection (86.247.11.6 and 86.247.11.20; Fig. 3c). This example looks to have been made in the same mould as the other two but at a later date, since the design has lost a lot of its sharpness and the top of the mould has worn down so that the rim touches the top of the crown. The Flint fragment matches these other three and it seems likely that all four examples were made in the same mould. The crudely executed decoration and distribution of parallels suggest that both the mould and pipes are of local manufacture, probably having been made and used in either Wrexham or the Hawarden area, perhaps by a member of the Hayes family (see Appendix 2). This armorial design may have been produced in response to the accession/coronation of either George IV in 1820/21 or William IV in 1830/31.

All of the earlier nineteenth-century styles discussed above are likely to have had long stems and some of them would have had glazed tips (ten glazed stem or mouthpiece fragments were recovered from the excavations, four with a green glaze, four with a lemon/yellow glaze, one with a brown glaze and one subsequently burnt so that the original colour is no longer recognisable). Many of the earlier nineteenth-century bowls are very crudely made with poorly designed and fitting moulds, mould flaws, manufacturing defects and untrimmed seams.

Around the middle of the nineteenth century short-stemmed pipes came into fashion and rapidly captured most of the market, although some traditional long-stemmed pipes remained in use as well. The short pipes often had ornately decorated bowls, which included designs that would have appealed to the local market, such as the Prince of Wales feathers (Fig. 8.27). Wrexham Museum collection includes an unprovenanced bowl with the Prince of Wales feathers on one side and a standing goat on the other, showing that Welsh designs were popular in the area, most likely produced by the local makers. These patriotic designs may well have been made in Wrexham, since they would have appealed to soldiers based in the barracks there. Some of the later examples also had bent stems (Fig. 8.22), which were copying the new styles of briar and meerschaum pipes with their vulcanite mouthpieces. There is even one piece with enamelled decoration on it (Fig. 8.29 - just a tiny section of enamel survives where the bowl decoration starts). This would have been a much more expensive pipe that was imported from France and shows that a wider range of products had become available.

The wider range of pipes available was probably due to improvements in the transport network, especially the introduction of the railways. Clay pipes are very fragile and had always been prone to damage in transit, especially when carried over bumpy roads. Carriage also increased the cost of the pipes, so that most of the early pipemakers typically only marketed their wares over a 15 to 20-mile radius, the distance that could comfortably be managed on foot or with a pack horse. With the introduction of the railways, it was possible to move pipes much more easily and over much greater distances. This in turn allowed larger workshops offering a wide range of decorative patterns to develop. This change is evident at Flint from pipes with catalogue numbers from larger scale manufacturers on them (e.g., Fig. 8.20), or with makers' marks that identify pipes from more distant production centres, such as Manchester (Figs 8.21 and 8.23). Similarly, the rail network enabled imported pipes to be distributed across the country, as evidenced by two French pipes found during the excavations (Figs 8.29 and 8.30).

Marked Pipes

Marked pipes were relatively scarce amongst the excavated material with just 18 examples amongst the 570 fragments recovered (3.2%). These can be divided into three types: stamped makers' names; moulded makers' names and other moulded marks. In addition, there were five eighteenth-century stems with Chester style roll-stamped decoration on them. Each of these classes of mark are described below, while details of the individual pieces can be found in Figure 4.

Stamped Makers' Names Eight fragments with name stamps were present, representing three different periods of production / styles of mark. The earliest style is represented by a full name relief THO/MAS/HEYS (Thomas Hayes) heel stamp of c1695-1720 from Ewloe (Fig. 7.1). This mark is unusual for the area in that it is copying a distinctive style from the Broseley area of Shropshire (Higgins 1987), which is more than 50 miles south-east of Ewloe and around 60 miles south-east of Flint. Broseley styles were copied up into north Shropshire and were extensively used by Hayes (Higgins 1983), but not by the neighbouring Chester makers, who had their own distinctive styles (Rutter and Davey 1980).

The next period represented is characterised by relief stamped marks that occur as long, single-line stamps placed on the top of the stem (e.g., Fig. 7.9). This is a distinctive Liverpool style and typically includes the maker's name and place of work. Five examples of this type, dating from c1770-1840, were recovered. One is part of a Fitzgerald stamp from Chester (various makers of this name operated there during this period), but the other four are all likely to have read 'J.HAYES.HAWARDEN' originally (only one has the Christian name initial surviving but other examples of this mark are known from Buckley, also with the Christian name initial 'J', cf Higgins 1995, Figs 7 and 8). These stamps can be attributed one or more of the various pipemakers named Jeremiah Hayes, who were

Site	Cxt	Pos	M/S	I/R	Mark	Cast	Date	Fig	Comments
ELF/15/ EX	3336	stem	S	R	cross and dot border	745.20	1690- 1720	7.7	A previously unrecorded Chester style stem border comprising a crude cross and dot decoration that probably dates from c1690-1720 (Fig. 7.7; 745.20). Stem bore just over 5/64".
ELF/15/ EX	46	heel	S	R	THO/MAS/HEYS	745.19	1695- 1720	7.1	Two joining fragments of a Broseley Type 5 bowl (Higgins 1987) with a tailed heel. This is made of a gritty local clay and has a lightly burnished surface of average quality. Traces of rim milling survive and there is a poorly impressed and blurred heel stamp that would have read THO/MAS/HEYS. This mark can be attributed to the Thomas Heys (or Hayes) who worked at Ewloe, about 7 miles SW of Flint, from c1695-1720, and whose pipes are well known from the site of a pottery at Brookhill, Buckley (Bentley, Davey and Harrison 1980, 273; Higgins 1983, 50). There are at least six different die types that are known to have been used by this maker. This example is hard to match because it is blurred, but it looks most similar to type E (Higgins 1983, 51).
DWF/16/ EX	2014	stem	S	R	Chester border	745.21	1720- 1760		A Chester stem with a bore of just over 5/64" and an impressed border of c1720-60 depicting two bird or griffin-headed scrolls flanking a leopard's head (Rutter and Davey 1980 border 57; Higgins Die 770).
ELF/15/ EX	3336	stem	S	R	tendril border	745.25	1720- 1760	7.8	A previously unrecorded Chester style stem border. This example is rather lightly impressed but seems to have some sort of tendril border, or possibly a stylised fleur-de-lys border. The style of this stamp is characteristic Chester products dating from c1720-60. This example occurs on a long (96mm) stem fragment, which indicates a little disturbed deposit. The border starts about 80mm from the bowl junction and this pipe has a stem bore of 6/64".
PSF/16/ EX	111	stem	S	R	Chester border	745.22	1720- 1780		Stem fragment with part of an C18th Chester style stem border on it. This is poorly impressed so that the exact type cannot be identified.
ELF/15/ EX	3035	stem	S	R	Chester border and oval	745.23- 24	1740- 1760		A stem with part of a Chester border and oval stamped on it. Both stamp types are previously recorded from Chester and both occur together on an example from Hunter's Walk (Rutter and Davey 1980 oval 2 (Fig. 54.2) and border 98 (Fig. 61.98); Higgins dies 656 and 811 respectively). The oval contains Masonic emblems, while the border has stylised foliage, etc., on it. Both stamp types have been dated by Rutter and Davey to c1740-60.
ELF/15/ EX	30	stem	S	R	HAYES. HAWARDEN	745.28	1770- 1840		Liverpool style stem stamp made by one of the Hayes family of Hawarden (probably Jeremiah), c1770-1840. A similar example is illustrated as Figure 7.9.
PSF/16/ EX	004	stem	S	R	HAYES. HAWARDEN	745.29	1770- 1840	7.9	Liverpool style stem stamp made by one of the Hayes family of Hawarden (probably Jeremiah), c1770-1840.
ELF/15/ EX	2213	stem	S	R	S.HAWARDEN	745.27	1770- 1840		Liverpool style stem stamp made by one of the Hayes family of Hawarden (probably Jeremiah), c1770-1840. A similar example is illustrated as Figure 9.
ELF/15/ EX	30	stem	S	R	FITZG	745.26	1770- 1840		Part of a Liverpool style stem stamp with part of 'FITZGERALD' surviving, for one of the Chester makers of this name.
ELF/15/ EX	2178	stem	S	R	J.H	745.30	1770- 1840		The start of a Liverpool style stem stamp of c1770-1840 reading 'J.H ', most likely for Jeremiah Hayes of Hawarden.
PSF/16/ EX	003	spur	M	R	dot		1800- 1860		Only the spur of a low quality bowl survives, so it cannot be seen if it was decorated. The relief moulded mark comprises a single relief dot on each side.

Site	Cxt	Pos	M/S	I/R	Mark	Cast	Date	Fig	Comments
PSF/16/ EX	003	spur	М	R	ring and dot		1800- 1860		Only the spur of a low quality bowl survives, so it cannot be seen if it was decorated. The poorly defined symbol mark appears to be a relief moulded ring and dot on each side.
PSF/16/ EX	004	spur	M	I	* *		1810- 1850	8.15	A bowl with simple leaf seams and crudely executed swags on the bowl sides, together with a star symbol mark moulded on either side of the spur. This is poorly defined and an attempt may have been made to remove it from the mould. There appears to have been a central dot to the star.
DWF/16/ EX	2018	spur	M	R	star with hollow in centre		1810- 1880	8.16	A complete spur bowl with leaf decorated seams. There are some surface flaws in the mould but the leaves are quite neatly formed and with some texture/serrations to them. There is a symbol mark comprising an open centred star on each side of the spur. This is a typical style of long-stemmed pipe that would have been current from c1810-1880, or even later.
ELF/15/ EX	3207	bowl / spur	М	R	TD/OO		1820- 1880	8.24	Fragment from a bowl with leaf seams and enclosed scallop decoration with stars above. There is a shield flanked by foliage facing the smoker with just the second letter 'D' surviving. The initials in this shield would have been 'TD' originally, and there would also have been a relief moulded symbol mark in the form of an 0 on either side of the spur (same mould as an example from DWF/16/EX 2025). By the nineteenth century the initials TD used like this were part of the design, rather than representing a specific maker. The use of the shield surround, however, is typical of pipes produced in the NW of England, most frequently around c1820-60, although this examples comes from a pit group of c1870-90. This TD bowl could either be an import from the Merseyside area or a local copy of that style.
DWF/16/ EX	2025	stem	S/M	I/R	Paris / FC / 609	746.1-2	1850- 1870	8.29	Stem fragment with an incuse stamp reading 'Paris / FC' across the stem and the relief moulded pattern number 609 on the left hand side of the stem. This was probably made by Francis Cretal of Rennes, who was working around 1850-70. Examples of this FC mark have also been found in the Williamson Tunnels in Liverpool (Higgins 2010) and in the closely dated Fort Hoskins in Oregon (1856-1866; Diane Zentgraf, pers. comm.). The fragment also has traces of moulded and enamelled bowl decoration surviving, showing that it would have been an ornate and more expensive product. This example came from a pit fill deposited c1870-90.
DWF/16/ EX	2004	stem	М	I	79		1860- 1880	8.20	A bowl fragment comprising the base of a spurless bowl with a stylised ribbon of leaves on the seams and a scroll design on either side. There is the relief moulded pattern number 79 on the left hand side of the stem, which shows that this came from a large workshop with a numbered catalogue of patterns.
DWF/16/ EX	2025	stem	М	I	B /Y		1870- 1890		Stem fragment with just the very end of an incuse sans-serif inscription reading 'B / Y' without a border, which would almost certainly have been the pattern name BURNS CUTTY on each side of the stem.
DWF/16/ EX	2025	stem	S	1	L.Fiolet / a St Omer	746.3	1870- 1890	8.30	Stem fragment with a stamp reading 'L.Fiolet / a St Omer' for the famous firm of that name, who worked until around 1920. This example comes from a pit group of c1870-90.

Site	Cxt	Pos	M/S	I/R	Mark	Cast	Date	Fig	Comments
DWF/16/ EX	2025	stem	M		T. HOLLAND / No 203		1870- 1890	8.23	This bowl fragment has a rounded base, but a two sideways projections forming a horizontal bar under the bowl, which is textured and decorated. On the sides of the stem is the incuse moulded serif lettering 'T.HOLLAND' within a relief moulded beaded border. The other side has a similar arrangement but the script reads 'No203' is sans-serif lettering. Thomas Holland of Manchester was only working in the 1870s (although his moulds were sold and re-used after his business closed, but often with his name deleted), so this piece is likely to date from c1870-90. The broken end of the Holland stem also shows slight abrasion top and bottom, suggesting that the pipe continued to be smoked even after it was broken and only had 50mm of surviving stem remaining.
ELF/15/ EX	3015	stem	M		T.HOLLAND / No345 x 1		1870- 1890	8.21	An almost complete stem of a short, thick and quite sharply tapered type marked T.HOLLAND / No 345 (incuse serif lettering within a relief moulded beaded border). The stem would have been around 9cm long originally and has a nipple tip with flattened oval stem section running up to it. The bowl end has been freshly broken off and was probably lost during excavation, suggesting that the whole pipe was probably present in this deposit. Thomas Holland was a good-quality pipemaker operating in Manchester during the 1870s, with a numbering system for his moulds that almost certainly related to a published catalogue (no examples of which are known to have survived). Many of the moulds were sold on and reused by other makers after the business closed, giving a date of around 1870-90 for the production of this pipe.
DWF/16/ EX	2025	bowl / spur	M	R	TD / OO		1870- 1890	8.24	A Merseyside style pipe represented by the larger part of a bowl with leaf seams and enclosed scallop decoration with stars above. There is a shield flanked by foliage facing the smoker with just the first letter 'T' surviving. The initials in this shield would have been 'TD' (same mould as an example from ELF/15/EX 3207) and there is a circle symbol mark, like an O, on either side of the spur. The use of the shield surround is typical of pipes produced in the NW of England, most frequently around c1820-60, although given the later date of the associated material in this context, it is possible that this mould continued in use unusually late (c1870-90). By the C19th, the initials TD used like this were used as a pattern name / part of the design, rather than representing a specific maker.

Figure 4: Marked pipes from the excavations in roughly chronological order, showing their site code and context (Cxt), position (Pos), method of manufacture either moulded or stamped (M/S), whether they are incuse or relief (I/R), what the mark comprises, the unique cast number if it has been impressed for the national catalogue, the date, and the figure number for any illustrated examples.

active in the Hawarden area until 1836, or to Elizabeth Hayes, who may have taken over her father Jeremiah's workshop between 1820 and 1842 (see Appendix 2).

The final period is represented by two incuse name stamps placed across the top of the stem. Both examples come from a deposit of c1870-90 and they represent two French manufacturers, Francis Cretal of Rennes (Fig. 8.29) and

Louis Fiolet of St Omer (Fig. 8.30). These imports reflect a much wider movement of goods during the second half of the nineteenth century, facilitated by the establishment of the railway network, which came to Flint in 1848.

Moulded Makers' Names Two pieces had incuse moulded names and pattern numbers on the sides of the stem. Both pieces date from around 1870-90 and are marked

'T.HOLLAND' for the Manchester maker Thomas Holland. One has the pattern number 203 (Fig. 8.23) and the other 345 (Fig. 8.21). Thomas Holland was born in Manchester on 17th July 1829, the son of the pipemaker Joseph Holland (born Manchester, c1809) and his wife Ellen (St Michael's baptism registers, Manchester, 26 January 1862). He would have learnt the trade from his father, with whom he was living at 5 Haig Street in 1841 (census). His father may have been working as a journeyman in 1841 but appears to have set up his own business shortly after, since 1845 is the foundation date given on later Joseph Holland & Sons letterheads (Jung 2003, 211-14). By 1851 (census) Thomas had married Mary Ann and was listed as a pipemaker with a one-yearold son (George), but with the family still sharing a property with his father Joseph at 7 Hurst's Court. His mother and brother James were also listed as pipemakers at the same address and presumably involved in the family business. By 1861 (census) he had moved to St Michael's Place, where he was again listed as a pipemaker, as was 15-yearold Joseph, who was listed as his son but was actually a younger brother. His 13-year-old younger brother John was also living with him (again erroneously given as Thomas's son), which suggests that their father Joseph had died in the intervening years. So, by this date, Thomas had presumably taken over running the family business, although he does not appear in Slater's 1863 directory. In 1871 (census) he was still at St Michael's Place and his wife, Mary Ann, was listed as a pipe finisher. Also sharing their property was another pipemaking family headed by Joseph Holliday from Newcastle (born c1826), who was presumably working for him. It was during the 1870s that his business really appears to have taken off, with good quality designs being developed that could compete with the elaborately moulded French pipes of the period. Between 13 January 1873 and 5 September 1878 Thomas Holland registered no less than 16 different pipe designs, one of the largest numbers for any British manufacturer (Hammond 1988). He is listed in Slater's 1876 directory as a pipemaker at Preston Street, Rochdale Road and in Slater's 1879 directory at 17 and 21 Blackburn Street, Rochdale Road. According to Hammond (1995, 27), Holland's business was taken over by John Carrington & Co in July 1879 and this appears to have marked the end of a period during which he ran a dynamic and innovative business producing good quality pipes in the latest designs. In the 1881 census Thomas was still described as a tobacco pipemaker, living at 52 Portland Street with his family. He has not been traced after this date, and he is not listed as a pipemaker in Slater's directory for 1883. He is probably the 55-year-old Thomas Holland (i.e., born c1830), whose death was recorded in the first quarter of 1885 in Manchester. Although Thomas probably worked as a pipemaker all his life, there was just a brief period during the 1870s when he is listed as an independent manufacturer in the trade directories and when he was busy registering designs, suggesting that he was operating at the highest level. This is the decade during which elaborate designs with his name and pattern number on the stem are likely to have been produced, although these good quality moulds, usually with his name deleted from

the stem, are known to have been used for some time after his business was taken over. Some of his moulds were still in use until as late as the mid-twentieth century.

Other Moulded Marks Eight pieces had other forms of moulded mark, all of which date from the nineteenth century and represent common varieties of mark for the period. Two identical examples from the same mould had the initials TD on the bowl and a circle motif on each side of the spur (Fig. 8.24). The initials TD are being used here as part of the design for the pipe (which was predominantly used as an export type to North America), rather than to represent a specific maker. Four other pieces had moulded symbols on each side of the spur: one had dots; one had a ring and dot and two had flower or star motifs (Figs 8.15 and 8.16). These are also generic symbols used by many makers as part of the pipe design. The final two pieces are a relief moulded pattern number 79 (Fig. 8.20), which would have related to a numbered catalogue, and part of an incuse stem inscription that would probably have read 'BURNS CUTTY' originally. The 'Burns Cutty' was a very popular style of pipe with a plain spurless bowl and was made by many different manufacturers.

Stamped Stems Five eighteenth-century stem fragments with roll-stamped decoration were recovered from the excavations, one of which also had part of an oval stem stamp on it. This style of decoration is characteristic of Chester and shows that good quality products from there were circulating in Flint during the eighteenth century. Some of the pieces recovered appear to be previously unrecorded types but, unfortunately, they are too damaged or poorly impressed for the full design to be seen or to be used as type examples.

Discussion

Two main problems with placing this assemblage in its wider context became apparent during the course of this study. First, there is very little published material from Wales with which to compare it. Second, there only appeared to be very limited pipemaking activity in the region that could have been a source for the pipes found. Oswald (1975, 207) listed just seven pipemakers for anywhere in Wales, while Evans (1981, 59), was only able to expand this number to nine for the whole of north Wales. The number of documented makers and their working periods did not appear to match the range of material recovered from Flint, most of which looked rather different from the very extensive archaeological archive from Chester, only some 12 miles to the east-south-east. As a result, it has been necessary to try and get a better picture of how this assemblage fits within its broader setting by carrying out a rapid survey of pipemakers in north-east Wales from readily available online sources. This has resulted in a new list of known pipemakers for the region that now runs to around 70 individuals who are documented working at nine or ten different places. The pipemaking locations are shown in Figure 1 with a detailed reference list of the production centres and pipemakers being provided as Appendix 2.

One of the most important production centres was clearly Wrexham, where at least 26 makers have now been identified, working at various dates ranging between 1684 and 1903. The early records have not been extensively searched but already at least eight makers operating from at least 1684 to 1721 have been identified, which suggests a flourishing early industry - particularly since one of the earliest references is to the death of a pipemaker in 1685, who would presumably have been working for some time before this. One of the early pipemakers was Mary Russell, who was already known from her high quality Broseley style products (Higgins 2016), and who can now be shown to have worked in the town. She probably came from Wem in Shropshire, a known pipemaking centre, where she worked with her husband briefly during the early 1690s before joining other members of the Russell family in Wrexham by 1695. There is currently a gap in the recorded makers between 1721 and the early nineteenth century after which there was continuous production through to the early twentieth century. This preliminary survey suggests that Wrexham was a regionally important pipemaking centre, and one that clearly warrants further work, particularly as to the origins of the industry there before c1680 and establishing whether production there continued during the mid to late eighteenth century.

The other main concentration of production was in the Hawarden area, where pipemakers are documented from Aston, Ewloe, Mold, Llong, Bistre and Buckley, as well as at Hawarden itself (Fig. 1). This was an industrial area, situated on the Flint Coalfield where white firing clays were utilised by the early pipemakers and both fireclays and fuel would have been available to pipemakers of all periods. It was also an area with extensive potting and brickmaking industries, so that there was a tradition of clay working, and the smoke from the kilns would not have been as noticeable as in an urban or purely agricultural environment. Ewloe is where the earliest pipemakers in North Wales are currently documented, working from the late seventeenth century onwards. John Hayes (c1653-1708) is the earliest known maker and would have been working from around 1673 if he were a pipemaker all his life. No pipes made by him are known but those of his son Thomas, who would have been pipemaking from the 1690s until his death in 1720, are well known.

John's son Thomas Hayes was baptised in 1676 and so would have been old enough to set up on his own by the late 1690s. His pipes were frequently encountered during excavations at Brookhill, Buckley (Higgins 1983), and an example has been found during the Flint excavations (Fig. 7.1). Other examples are known from Chester (Rutter and Davey 1980, Fig. 38.59) as well as from Meols, at the north end of the Wirral (Higgins 2007, 269-270), showing that his products circulated over quite a wide area. What is striking is that both the bowl form and style of mark that he used are distinctive types from the Broseley area of Shropshire, some 54 miles to the south-east of Ewloe (Higgins 1987). These styles were not used in Chester, and this is by far the furthest north-west that the Broseley style is known to have been copied. Nor does Hayes appear

to have been alone in this, since other examples from Brookhill with marks only known from that site suggest that other as yet unrecorded makers from the area were using this distinctive style as well (Higgins 1983).

Hayes was working only about eight miles west of the major pipemaking centre at Chester, which had its own distinctive bowl forms and marks, so it is hard to explain why the Flintshire makers chose to work in a completely different style. One hypothesis might be that there was a legislative and cultural divide between the rural Welsh pipemakers and the English merchants of Chester, since you needed to be a Freeman to trade in the town. However, this idea does not stand up to scrutiny, since not only have Hayes pipes have been found in Chester but he also seems likely to have taught his young brother-in-law Thomas Fox the trade and Fox became a Freeman of Chester in 1716, while continuing to live and work in Hawarden. So too did Thomas's own son Thomas, who became a Freeman of Chester in 1727, for which he paid a fee of £10. This shows that the Hawarden area pipemakers were able to trade in Chester while maintaining their own distinctive styles and that they were sufficiently prosperous to be able to afford to do this.

The mixing of Chester and locally produced pipes in Flint during the eighteenth century has already been noted and shows that the inhabitants of this comparatively small town were able to access the good quality products from Chester if they wanted to. No Rainford style pipes have been identified from Flint but fragments of late eighteenthcentury Liverpool style decorated bowls as well as the local adoption of Liverpool styles of stem mark have already been noted. Furthermore, pipemakers from the Hawarden area were moving to Liverpool, most notably members of the Hayes family, who operated one of the principal pipe manufactories in Liverpool from c1780-1800 (Higgins 2014), so there would have been family ties between the two places. As Liverpool grew to eclipse Chester as the principal regional port there is likely to have been increasing coastal traffic bringing goods from the Mersey to the Flintshire coast. Once again, this shows a connectedness with the principal international market in the region so that the inhabitants of Flint should have been able to access the latest fashions, goods and ideas if they wanted to.

Having said that, the early nineteenth-century pipes, like those of the early eighteenth century, show considerable differences with those found in Chester or Liverpool. The pipes from Flint are often of exceedingly low quality with poorly made moulds and poorly finished pipes. The reason for this is not immediately obvious, since Chester had specialised in making good quality moulds during the eighteenth century – even the Liverpool pipemakers obtained them from there at this date (Angerstein 2001, 311). Members of the Hayes family were using good quality moulds in the latest styles at Liverpool at the end of the eighteenth century (Higgins 2014, Fig. 76), so there should not have been a problem in obtaining better moulds. Likewise, there is no immediately obvious reason

Name	Date(s)	Place	Date(s)	Place	Date(s)	Place	Date(s)	Place	Date(s)	Place	Date(s)	Place
Bolam, James Rice	1841	Stepney	1843	Ipswich	1844	Holywell	1845	Liverpool	1848	Oxford	1851	St Pancras
Bostock, William	1851	Manchester	1881	Wrexham								
Calvin, Michael	1805	Westmeath, Ireland	1851	Mold								
Chamberlain, Samuel	1845	Birmingham	1847	Llong	1851-1861	Warwick						
Cope, John	1807	Liverpool	1837-1871	Wrexham								
Boyde, Thomas	1828	Carlisle	1851-1861	Bistre								
Cockeyne, John	1811	Outside Flintshire	1841	Hawarden								
Davies, Edward	1815	Liverpool	1851	Holywell								
Davies, John	1819	Chester	1849-1851	Leicester	1854	Nottingham	1856-1869	Holywell				
Davies, John William	1848	Leicester	1877-1895	Holywell								
Davies, Mary Ann	1824	Seaford, Sussex	1831-1851	Leicester	1854	Nottingham	1856-1904	Holywell				
Davies, Samuel	1850	Leicester	1854	Nottingham	1856-1901	Holywell						
Davies, William	1822-1871	Chester	1881-1891	Holywell								
Eastwood, Samuel	1820	Halifax	1840	Hawarden	1841	Bistre	1851-1881	Halifax				
Evans, Elizabeth	1826	Outside Flintshire	1841	Bistre								
Hayes, Abel	1706-1750	Ewloe	1750-1803	Liverpool								
Hayes, Abel	1797	Hawarden	1825-1871	Wrexham								
Hayes, Anne	1781	Corwen, Merionethshire	1811	Chester	1812-1845	Wrexham						
Hayes, Henry	1850-1868	Wrexham	1871	Gillingham								
Hayes, Jeremiah	1792-1808	Hawarden	1838-1861	Middlesex (London)								
Hayes, Thomas	1722-1780	Hawarden	1780-1795	Liverpool								
Hayes, Thomas	1749-1775	Hawarden	1775-1800	Liverpool								
Hayes, Thomas	1770-1803	Hawarden	1811	Chester	1812-1829	Wrexham						
Hewson, William	1822	Salford	1841	Bistre	1852-1861	Darlington						
Hudson, Henry Salisbury	1840-1861	Derby	1867	Wrexham								
Hughes, Joseph	1841	Leeds	1861	Holywell								
Hughes, Thomas	1862	Sealand, Flintshire	1863	Bromborough	1865-1883	Chester	1886-1903	Wrexham				
Hullah, Philip	1817	Ripon	1841	Hawarden	1861-1862	Newport	1871-1891	Sheffield				
Jones, George	1788-1832	Chester	1851-1861	Bistre								
Riley, Joseph	1818	Halifax	1841	Bistre	1851-1881	Keighley						
Russell, William	1692	Wem	1695-1713	Wrexham								
Smith, William	1839	Norwich	1851-1861	Great Yarmouth	1865	Brighton	1871	Chester	1874	Stockport	1877-1899	Wrexham
Stone, Henry Walter	1851	Maidstone	1861	Rhostyllen	1867	Wrexham	1871-1876	Birmingham				
Tarrett, James	1803	Ireland	1861	Holywell								
Ward, John	1708-1710	Oswestry	1720	Wrexham	1733-1754	Oswestry						
Williams, Edward	1823-1876	Oswestry	1876-1891	Wrexham								
Wilson, James	1828	Whitehaven	1851	Bistre								

Figure 5: Pipemakers known to have moved to or from NE Wales, showing the dates and locations where they have been recorded.

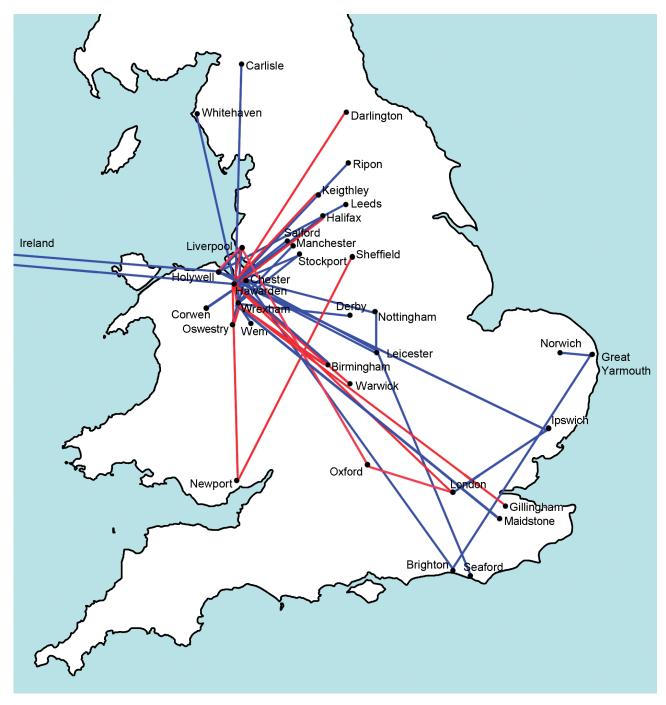


Figure 6: Map showing the movement of pipemakers into north-east Wales (blue lines) and out of north-east Wales (red lines). See Figure 5 for details.

for the poor quality of manufacture, especially since this was a clay working area with a thriving potting industry as well. The early nineteenth century was, however, a time of general economic problems due to a variety of factors including the Napoleonic wars and crop failures. Across Britain this is a period where poor quality pipes are often found, most likely reflecting these economic pressures and financial hardship. The situation in Flintshire appears to have been particularly bad at this period with the moulds being low quality copies of styles from Liverpool and Chester (e.g., Fig. 7.13), presumably made locally by inexperienced or unskilled metal workers. Similarly, the pipes appear to have been produced quickly and cheaply,

presumably to keep the cost to the absolute minimum, since better quality pipes would have been available if transported from Chester or Liverpool.

This situation improved during the second half of the nineteenth century, when rather better-quality moulds and production are apparent. This was perhaps a response to improved economic conditions as well as the increased completion that resulted from cheap movement of goods by rail after 1848, when Flint station opened. One unexpected result of researching the makers at this period was the very high degree of mobility that was apparent. The pipemakers recorded in north-east Wales had often

travelled from other parts of the country, sometimes having worked at a number of other places along the way. These were journeymen pipemakers who had learnt their trade and travelled from place to place seeking work. In doing so, however, they would have accumulated a wealth of experience, having worked for different masters and having produced a range of different pipes. John Davies, for example, started life in Chester but worked as a journeyman in Leicester and Nottingham before settling to run his own business in Holywell. Along the way he met his wife, who originated in Seaford, Sussex, and she went on to run the pipemaking business in Holywell after John's death.

The same was true of pipemakers born in north-east Wales. Members of the Hayes family have already been noted moving to Liverpool during the eighteenth century and, during the early nineteenth century, a number of members of this family moved from Hawarden to Wrexham, where they dominated the local pipe trade until the 1870s. Some of the pipes found at Flint, especially those with armorial or Prince of Wales decoration, may have been made in Wrexham by them. Other members of the Hayes family moved to London and Kent where they worked. This constant ebb and flow of people across the country must have been instrumental in disseminating new ideas and patterns of pipe as well as ensuring that uniform production methods were being employed. Those makers who are known to have moved are listed in Figure 5, with their travels being plotted in Figure 6. Blue lines show the movement of pipemakers on their travels towards northeast Wales and red lines the movement of pipemakers out of north-east Wales. While there is clearly an emphasis on movements around the northern half of England, contacts extended right across England and Wales and into Ireland. Given the relatively small size of the sample, the degree of mobility is striking and underlines the degree to which Flintshire was connected to the rest of the country during this period.

Another factor that emerged was the apparent ease with which pipemakers were able to set up new workshops or move between them. William Smith, for example, is recorded in Wrexham five times between 1881 and 1892, but at a different address each time (Appendix 2). Two of these are census listings, which could just be taken as where he lived rather than worked (although pipemakers often worked where they lived), but the other three are directory listings, suggesting that they represent the actual workshop address. More explicit detail is provided by a court case relating to Thomas Hughes and his illegal erection of kilns. This research has shown that he was a 19-year-old commercial traveller in 1881, with no obvious connection to the pipe trade. By 1883, however, aged about 21, he had built his own kilns in Chester (without planning permission) and was listed in a local directory as a pipemaker. He married in Wrexham two years later and a court case shows that by about 1886 he had built new kilns in Wrexham, again without planning permission. Regardless of whether planning permission should have been sought or not, the case shows that a young man

could easily move from place to place setting up a new workshop, even if this entailed constructing a new kiln from scratch.

The final aspect to consider is the dissemination of pipes from their place of manufacture. Where early pipemakers' inventories survive, they often include a pack horse, and the distribution of marked pipes can be used to reveal the routes that they traded over. But who were the pipes actually sold to on their travels? The detailed account books from Chirk Castle provide a glimpse into the secondary distribution of pipes via a range of different outlets. The following references were mainly extracted from the 1666-1753 account books, with one earlier reference from an account book of 1646 (Peter Taylor, emails of August and September 2011):

1646 - Pd Cpt. Massie's man that bought a grosse of tobacco pipes 0-1-0

1671 (Aug 7) - Paid Mr Crewe [apparently an apothecary of Wrexham] for three glasses delivered John Rogers xij d & for a grosse of tobacco pipes xvj d and for comeinge with them aft mr Sydeneys weddinge vj d 0-2-10

1686 (Aug 13) - Pd Mr Michael Ball [draper of Shrewsbury] for the use of his house 3 weekes there, for Ale and Beer, tobacco and pipes

19-13-0

1690/91 (March 10) - Pd Martha Wilton, of Chirk, widd, for several tobacco pipes, and for some materialls to make up the Liverys 0-14-0

1697 (July 24) - Pd Matthew wynne the tobacco pipes maker for 6 grosse of pipes 0-12-0

1706 (July 9) - Pd Mr George Myddleton [apothecary of Wrexham] a bill yt he had disbursed for Carrage of several boxes for ye Ladys from London, and for 3 grose of pipes and 5 duzon of bottles xxxiiij s ij d

1720/21 (March 6) - Pd Mr Daniell Pierce of ye Red Lyon [in Chirk] ... for muggs and pipes 10s

These accounts show that pipes were being obtained at the castle from a variety of different sources. Captain Massie could be the individual of that name who was involved in the Battle of Middlewich in 1643. If so, it is not clear why he would have been supplying pipes, although various members of the Massie family are documented as pipemakers in Chester between 1688 and 1732 (Rutter and Davey 1980) and so perhaps the family had been involved in pipemaking earlier then is currently documented. It is not known what trade the John Rogers referred to in 1671 followed, and the name is common locally, so this individual cannot be identified with any certainty. The other references, however, show that pipes were being obtained from a variety of other traders,

including apothecaries, publicans and a widow at Chirk, who appears to have been acting as a shopkeeper. In only one instance is there a reference to pipes being purchased directly from a pipemaker, which is the 1697 reference to Matthew Wynne. Unfortunately, the entry does not state where Wynne was working, since he is otherwise undocumented as a pipemaker.

It has not been possible to find Wynne in an online search of parish records from surrounding areas, but a pipe marked MW of this date is known from Brookhill in Buckley (Higgins 1983, Fig. 2.27) and there are four examples amongst a large collection from Willaston in Cheshire (Higgins 2018, 127). The Brookhill example has the initials MW with a fleur-de-lys above (and probably below originally) and occurs on a pipe with a tailed heel of Broseley type. The same style mark is amongst three or four different MW die types found at Willaston on pipes with large round heels and another MW mark with fleurde-lys has been recorded from a garden at Denbigh. Davey (2016) notes at least three different MW die types from Tai Penamnen in Snowdonia and speculates that they might be from an otherwise undocumented member of the Ward family from Oswestry. This seems very unlikely given the distribution of MW marks and the fact that there are no known MW marks from Shropshire, despite an extensive survey of pipes from the county (Higgins 1987). In contrast, Matthew Wynne is a documented pipemaker at the right time from a Welsh source, and so seems almost certain to have produced these MW pipes. The reference from Chirk and distribution of marks centres on northeast Wales, which would fit with the castle having ordered pipes from a local manufacturer, as does the style of MW pipes that have been documented. Until his actual workshop location is identified, Wynne has been added to the list (Appendix 1) as a 'Chirk area' maker.

The Chirk accounts show that pipemakers were able to disseminate their wares to a wide variety of intermediate traders, who would have provided a local supply source for anyone wanting pipes. Each pipemaker probably had a regular circuit that he followed to resupply these 'middlemen' and/or hawkers who would have bought pipes at his workshop and served a similar function. North-east Wales was comparatively densely populated when compared with areas to the west, but situated close to English towns such as Chester, Whitchurch and Oswestry, with whom there would have been regular trade. There was a sufficient population in this part of Wales to support pipemakers at various production centres, who were in a position to supply goods further west into Wales as well as interacting with English production centres and markets to the east.

Overall, the new research has shown that there were two main areas where pipe production took place in north-east Wales during the late seventeenth and early eighteenth centuries: in the Hawarden area to the south-east of Flint and at Wrexham in Denbighshire. These areas produced pipes that had closer stylistic links with Shropshire products from some distance to the south-east, rather than

those from nearby Chester. Production in both these areas is already attested from the later seventeenth century, but the unidentified marks from Brookhill suggest that other, and earlier, makers remain to be found. Earlier makers are also likely at Wrexham, as well as later ones continuing into the remainder of the eighteenth century. During the nineteenth century these two areas continued to support pipemakers and they were joined by a third at Holywell, to the north-west of Flint.

The excavated evidence from Flint suggests that rather different styles and qualities of pipe were being used as opposed to the large urban centres of Chester and Liverpool. The nature of the pipes used at Flint changes over time, most likely reflecting the prevailing economic condition of the town, but invariably including a high proportion of pipes that are likely to have been made locally. Some may have travelled up from Wrexham, which now has the largest number of documented makers in north-east Wales, but very little work has been done on the pipes produced there. Holywell is geographically the closest source at about 5 miles but absolutely nothing is known of the pipes produced there, and these two centres are clearly a priority for future research. The Hawarden area is not much further than Holywell at about 7 miles away, and pipes from there were clearly reaching Flint from the seventeenth century onwards. These mixed with pipes from Chester and, later, Liverpool and beyond to reveal changing patterns of taste and consumption within the town. The pipes reveal a complex web of connections that provide insights into the lives of Flint's inhabitants over time, and this picture will be further sharpened and refined as more pipes become available for study and more documentary research into the pipemakers and production sites is undertaken. The revised list of known pipemakers from north-west Wales (Appendix 2) marks a major step forward in understanding the development of the industry in this region during the seventeenth to nineteenth centuries. It also highlights how little archaeological investigation there has been into the pipes produced there, particularly in Wrexham, which was by far the largest urban centre in this part of Wales.

List of Illustrations

The illustrated pipes shown in Figures 7 and 8 (numbers 1-14 and 15-30 respectively) are described below. Burnished surfaces are indicated with a light broken line on the surface of the pipe, and broken edges with a stipple. The internal bowl cross for the bowl shown in Figure 7.2 is shown in plan as a separate detail in front of the bowl. Any maker's mark from the other side of an illustrated piece is also shown as a separate detail. Unless otherwise stated, all the bowls have simple cut rims without any modification and are made of a fine white clay, most likely imported from the south-west of England. Stamped marks have been added to the national catalogue that is being compiled by the author and the unique cast reference for the individual impression is given at the end of the entry. The site and context number for each piece is also given. Almost all the drawings have been prepared and inked by Dr Susie White, with the remainder being by the author.

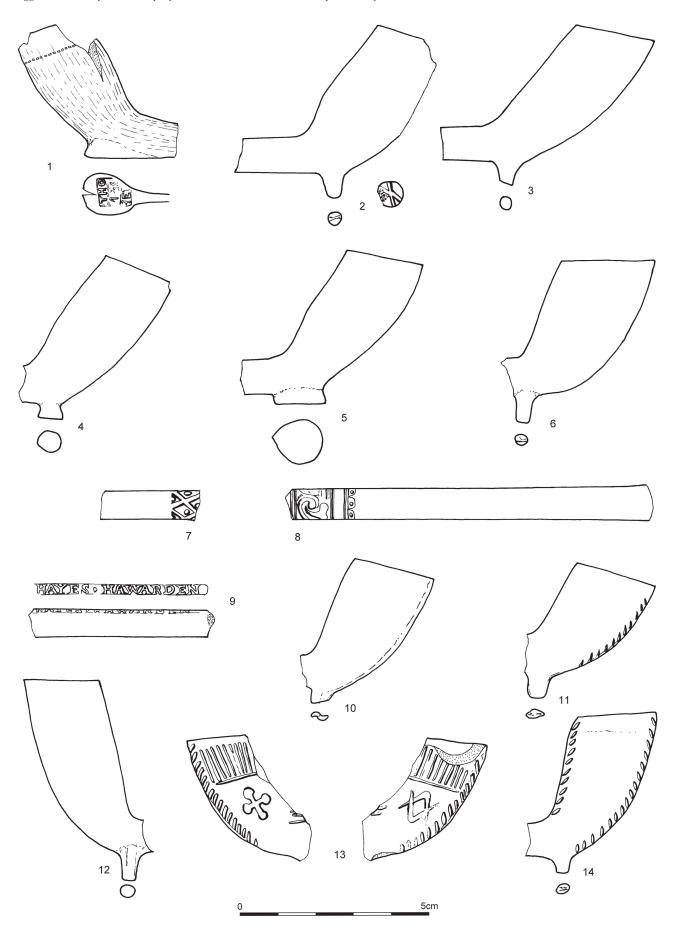


Figure 7: Clay tobacco pipes from excavations at Flint, nos. 1 to 14. Drawings: S. D. White.

- 1: Two joining fragments of a Broseley Type 5 bowl (Higgins 1987, 256-258) with a bottered rim and a tailed heel. The bowl is made of a gritty local clay and has a lightly burnished surface of average quality. Traces of rim milling survive and there is a poorly impressed and blurred heel stamp that would have read THO/MAS/HEYS. This mark can be attributed to the Thomas Heys (or Hayes) who worked at Ewloe, about 7 miles SSW of Flint, from c1695-1720 (see Appendix 2). There are at least six different die types that are known to have been used by this maker. This example is hard to match because it is blurred and incomplete, but it looks most similar to type E (Higgins 1983, 51). Stem bore 6/64"; Cast 745.19. ELF/15/EX (046).
- 2: An unmarked spur bowl of c1710-50 with a distinctive 'hump' to the back of the bowl. This is a very similar shape to at least nine examples from Brookhill, Buckley, which were probably made in that area (Higgins 1983, 58 & Fig. 3.43; Higgins 1995, Fig. 2). This example has a forward sloping rim, an internal bowl cross and a stem bore of just under 6/64". ELF/15/EX (2176).
- 3: Chester style spur bowl of c1710-50 with a stem bore of just under 6 /64". ELF/15/EX (3182).
- **4:** Chester style bowl of c1700-30 with a very small pedestal type heel. Stem bore just over 5/64". ELF/15/EX (3253).
- **5:** Chester style bowl of c1680-1730 with a large, flared, heel. Stem bore just over 5/64". DWF/16/EX (2033).
- **6:** Chester style bowl of c1740-90 with a large and rather oval bowl mouth. The fabric has a naturally very glossy surface. Stem bore 5/64". PSF/16/EX (008).
- 7: Stem with quite a crude cross-hatched and dot roll-stamp of c1690-1720. Similar types were made in Chester (Rutter & Davey 1980) but this particular die appears to be previously unrecorded. Stem bore 5/64". Cast 745.20. ELF/15/EX (3336).
- **8:** Stem with a tendril type roll-stamp of *c*1720-60. Similar types were made in Chester (Rutter & Davey 1980) but this particular die appears to be previously unrecorded (although almost certainly a Chester product). The border occurs on a long (96mm) stem fragment and starts about 80mm from the bowl junction. The stem is not burnished and has a bore of 6/64". Cast 745.25. ELF/15/EX (3336).
- 9: The most complete of at least four stem stamps from the excavations that probably all read 'J.HAYES. HAWARDEN' originally (the 'J' only survives in one example). These date from c1770-1840 and the mark was probably first used by the Jeremiah Hayes who is recorded at Hawarden from c1744-1820 (Appendix 2). It is possible that Jeremiah's daughter, Elizabeth, carried on his workshop after his death, since she appears in local trade directories as a pipemaker in her own right (died 1842). If so, she may have continued using this mark

- after 1820, although the fact she is listed under her own name in the directories might argue against this. Another possibility is that Jeremiah's son, Jeremiah (1783-1836) could have used this mark after 1820. Stem bore just under 6/64". Cast 745.29. PSF/16/EX (004).
- **10:** A complete plain spur bowl of *c*1800-1850. This is very poor quality with surface defects in the mould and very poorly fitting mould halves, leaving a pronounced seam, which has not been trimmed. Stem bore 5/64". ELF/15/EX (3435).
- 11: An almost complete spur bowl, quite poor quality, with simple leaf decoration on the front seam only. The bowl form is hard to date accurately, being a long-lived style of everyday pipe that was current from *c*1800-1880. This particular example is similar in form to one recovered from an early 1860s deposit at Big Lea Green in Merseyside (Higgins 2012, Fig. 81). Stem bore 5/64". DWF/15/EX (312).
- 12: Two joining sherds that make up the larger part of a tall, upright spur form of c1780-1830. The mould has a streaky surface and quite a long spur. There are some clear 'roughing up' marks from the stopper inside the bowl. Stem bore 5/64". PSF/16/EX (007).
- **13:** A bowl made in a very poor-quality mould with poorly fitting seams and crudely executed decoration comprising leaf seams and decorative motifs on each side of the bowl (the spur is missing). These motifs are based on the 'panel decorated' bowls that were popular in the Liverpool area from c1820-50, but this example is much more basic/ simplified in design. There is a deep frieze of vertical lines around the upper part of each side of the bowl with a single cross below on the left-hand side and a Masonic motif (square and compasses) on the right, but without any enclosed flutes below, as would normally be expected in panel decorated bowls. A similar (but better quality) design has been found in Chester (Rutter and Davey 1980, Fig. 73.13). The mould for this example must have been made by a local metal worker and the pipe clearly looks like a provincial piece from NE Wales. Stem bore just over 4/64". ELF/15/EX (030).
- 14: A pipe bowl of c1800-50 with simple leaf decorated seams. There is a faint mould line parallel with the rim where it has been altered or repaired at some point. Stem bore 5/64". PSF/16/EX (004).
- 15: Pipe bowl of c1810-50 with leaf decorated seams and swags below the rim on either side of the bowl. There is a poorly defined symbol mark (flower) on either side of the spur. Although the decoration is quite neat, it is simple in design and the background of the mould has some surface defects, indicating an everyday sort of a product. Stem bore 5/64". PSF/16/EX (004).
- **16:** A complete spur bowl with leaf decorated seams. There are some surface flaws in the mould, but the leaves are quite neatly formed and with some texture/serrations to

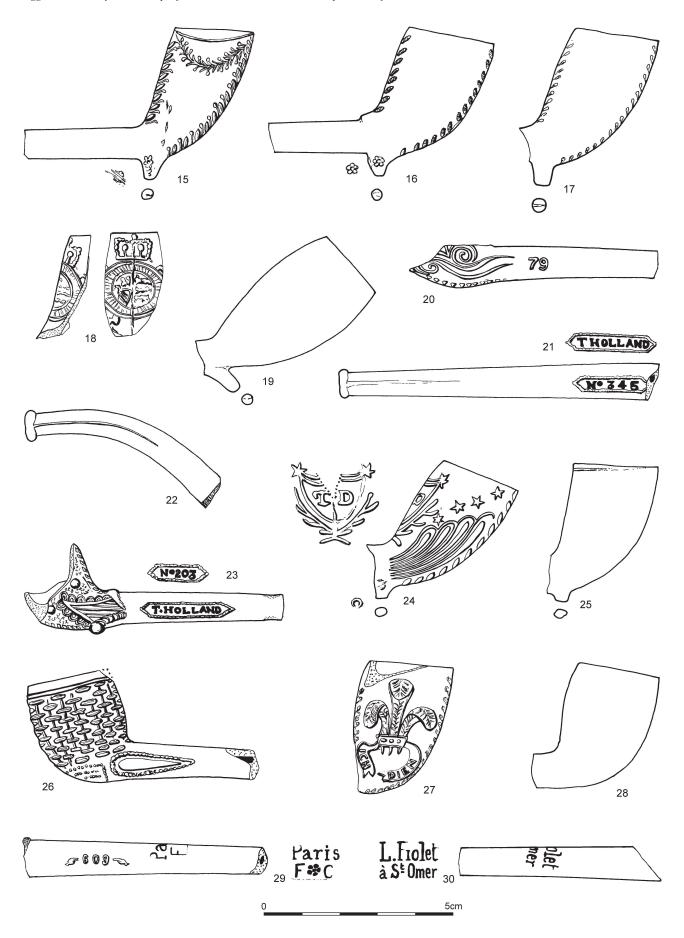


Figure 8: Clay tobacco pipes from excavations at Flint, nos. 15 to 30. Drawings: S. D. White.

them. There is a symbol mark comprising an open centred star or flower on each side of the spur. This is a typical style of long-stemmed pipe that would have been current from *c*1810-1880, or even later. Stem bore just over 4/64". DWF/16/EX (2018).

- 17: A complete spur bowl with leaf decorated seams of typical nineteenth century type, dating from around 1820-1900. Stem bore 5/64". DWF/16/EX (2024).
- 18: A fragment from the back of a bowl, facing the smoker, with quite boldly cut decoration in a provincial style. This consists of crowned arms, which appears to include an Irish harp on the left side and, possibly, three or four lions on the right. There are just traces of the lion and unicorn supporters, which would have been on either side of the bowl. Armorial pipes of this type are not very common regionally but three close parallels for this particular example are known from the area (see main text and Fig. 3), probably all from the same mould. The distribution and poor quality of the engraving both suggest local production, most likely in either the Hawarden area or in Wrexham. This design probably dates from around 1820-50, when the Hayes family were the principal pipemakers in this area, and the design may have been created in response to the accession or coronation of either George IV in 1820/21 or William IV in 1830/31. ELF/15/ EX (030).
- 19: A rather elegant and very forward leaning bowl with a pronounced forward-pointing spur dating from c1870-1910. Stem bore just under 5/64". DWF/16/EX (2027).
- **20:** The base of a spurless bowl from a deposit of c1860-80 with a stylised ribbon of leaves on the seams and a scroll design on either side. This pattern of pipe is very likely to have had basket weave decoration on the bowl, similar to the 'large basket' pattern shown in Joseph Holland & Sons catalogue of c1915 from Manchester (Jung 2003, 334, Pattern 254). There is the relief moulded pattern number 79 on the left-hand side of the stem, which shows that the excavated example came from a large workshop with a numbered catalogue of designs. See also Figure 8.26 for another basket weave design. Stem bore 4/64". DWF/16/EX (2004).
- 21: Two joining fragments making up an almost complete stem of a short, thick, and quite sharply tapered type marked 'T.HOLLAND / No 345' (incuse serif lettering within a relief moulded beaded border). The stem would have been around 9cm long originally and has a nipple tip with flattened oval stem section running up to it. The bowl end has been freshly broken off and was probably lost during excavation, suggesting that the whole pipe was probably present in this deposit. Thomas Holland was a good-quality pipemaker operating in Manchester during the 1870s, with a numbering system for his moulds that almost certainly related to a printed advertising catalogue (no examples of which are known to have survived). Many of the moulds were sold on and reused by other makers after the business closed in 1879, so that this example can

- only be dated to somewhere around 1870-90. Stem bore just under 5/64". ELF/15/EX (3015). See also Figure 8.23.
- 22: A nipple mouthpiece on a flattened stem end from a short-stemmed pipe that has been sharply bent. This style of pipe did not come in until the later nineteenth century and the bowl was almost certainly decorated just the very end of a textured surface survives. This piece probably dates from c1870-1920. Stem bore 5/64". DWF/16/EX (2024).
- 23: Bowl fragment with a rounded base, but also two sideways projections forming a horizontal bar under the bowl, which is textured and decorated. On the sides of the stem is the incuse moulded serif lettering 'T.HOLLAND' within a relief moulded beaded border. The other side has a similar arrangement, but the script reads 'No203' is sans-serif lettering. Thomas Holland of Manchester only appears to have produced pipes like this during the 1870s (although some of his moulds were sold and re-used after his business closed in 1879, but often with his name deleted). Stem bore just over 4/64". From DWF/16/EX 2025, a pit fill of c1870-90. See also Figure 8.21.
- 24: A composite drawing of two bowl overlapping fragments made in the same mould but recovered from different contexts (two separate pipes represented). The bowl has leaf seams and enclosed scallop decoration with stars above. There is a shield flanked by foliage facing the smoker containing the initials 'TD', which, by the nineteenth century, were used as a pattern name / part of the design, rather than representing a specific maker. The use of the shield surround, however, is typical of pipes produced in the north-west of England, most frequently around c1820-60, although one of these examples (DWF/16/EX 2025) came from a pit fill that could be as late as c1890 (either residual in it or representing the late use of an old mould). This TD bowl could either be an import from the Merseyside area or a local copy produced in a north-west English style. Stem bore of the one measurable piece 5/64". DWF/16/EX 2025 and ELF/15/ EX (3207).
- **25:** A plain spur bowl with quite thick walls and a poorquality surface. There is also a clear line around the rim where it has been altered or repaired. A low quality, everyday product. Stem bore 5/64". From DWF/16/EX 2025, a pit fill of c1870-90.
- **26:** A spurless pipe with basket weave decoration on the bowl and stem decoration, which is matched by another stem fragment from the same context, showing that two examples from the same mould are present in this group. The basket weave design was a popular motif made by many different manufacturers during the late nineteenth and early twentieth centuries (cf Fig. 8.20), but this example could well have been made locally, given that two examples occur. Stem bore 5/64". From DWF/16/EX 2025, a pit fill of c1870-90.
- 27: A spurless bowl with small open leaves decorating the

seams. Decoration comprises the Prince of Wales feathers on each side of the bowl with ICH DIEN in the banner beneath. Royal emblems such as this were relatively common on pipes, but the Prince of Wales feathers would have been particularly relevant to the market in Flint. There is a similar design in Wrexham Museum with the Prince of Wales feathers on the left-hand side and a goat on the right, and both examples are likely to be local products. This example has a stem bore of 4/64". From DWF/16/EX 2025, a pit fill of c1870-90.

28: Composite drawing of three fragments from different pipes (but all made in the same mould), which were found together in a pit fill of c1870-90. Plain spurless pipes of this style were popular from the mid nineteenth century onwards and made by many different manufacturers. The occurrence of three identical examples from the same pit could well indicate that this particular version was produced by one of the local manufacturers. Stem bore 5/64°. DWF/16/EX 2025.

29: Stem fragment with an incuse stem stamp reading 'Paris / FC' and the relief moulded pattern number 609 on the left-hand side of the stem. This pipe was made by Francis Cretal of Rennes, who was working around 1850-70. Examples of this FC mark have also been found in the Williamson Tunnels in Liverpool (Higgins 2010) and at the closely dated Fort Hoskins site in Oregon (occupied 1856-1866; Zentgraf 2018, 92-94). There are traces of moulded and enamelled bowl decoration surviving, showing that it would have been an ornate and more expensive type of pipe. Stem bore 5/64". Cast 746.1-2. From DWF/16/EX 2025, a pit fill of c1870-90.

30: Stem fragment with an incuse stem stamp reading 'L.Fiolet / à St Omer' for the famous French firm of Louis Fiolet from St Omer. This trademark was registered on 20 April 1876 (No 4998), when it had previously been in use for 43 years, i.e., since 1833 (Hammond 1988, 87). The firm continued in production until the 1920s, but this example came from a pit fill of c1870-90. Stem bore 5/64". Cast 746.3. DWF/16/EX 2025.

Appendix 1 - Context Summary

The following context summary is arranged by site and then by context. The numbers of bowl (B), stem (S) and mouthpiece (M) are recorded for each context, as well as the total number of fragments that this represents. The 'cast' reference is the unique identifier allocated to the individual impression of any stamped mark that has been added to the national stamp catalogue, a copy of which is held at the National Pipe Archive at the University of Liverpool. The date 'range' is the widest overall spread of pipe fragments present, while the 'deposit' represents the most likely deposition date for that group, based on an assessment of the latest pipe fragments recovered and any more diagnostic pieces present. The illustration numbers (Figs) refer to the drawing numbers in Figures 7 and 8 of this report (pages 116 and 118). Any comments or discussion relating to each context group appears on the following line.

	Cxt	Description	В	S	M	Tot	Marks	Cast	Decoration	Range	Deposit	Figs
DWF/15/ EV	312	Stone wall	1			1			leaf seams x1	1800- 1880	1800- 1880	11
accurately	y, being a l	ong-lived style of	everyd	ay pip	e that	was cu	af decoration on the rrent from <i>c</i> 1800-18 seyside (Higgins 20	380. This p	articular examp			
DWF/15/ EV	405	Final fill of town ditch	2			2				1680- 1880	1780- 1880	
							red type) of late C1 agments have their			nd a spur fra	gment from	a low-
DWF/16/ EX	1010	Brick extension to [1009]	1			1			leaf seams x1	1800- 1880	1800- 1880	
The lower	r part of a	spur bowl with 10	3mm of	survi	ing st	em. Th	is is an 'everyday' p	ipe of low	quality with sim	ple leaf dec	orated seam	is.
DWF/16/ EX	1016	Fill of brick oven flue [1013]		4		4			glaze x 1	1650- 1730	1650- 1730	
patches of	of pale lemo ly accident	on-yellow glaze o	n it. Th	is runs	acros	s a bro	s suggesting a date ken end, showing th he fragment having	nat the pip	e was broken w	hen the gla	ze was fluid.	This
DWF/16/ EX	1019	fill of brick oven [1018]	1	2		3				1670- 1730	1680- 1730	
All fragme	ents are of	late C17th to ear	y C18t	h types	s, with	the bo	wl fragment (body s	herd only)	probably dating	g c1680-173	30.	
DWF/16/ EX	1044	fill of culvert [1036]	1			1				1780- 1850	1780- 1850	
A body sh	nerd from a	large, plain, thin-	-walled	bowl o	of late	C18th	to mid-C19th date.					
	1047	EII - E -III-I-		1		1				1650-	4050	
DWF/16/ EX	1047	fill of ditch [1046]		<u>'</u>						1740	1650- 1740	
	1047									1	1	
EX DWF/16/	1047			1		1				1	1	
DWF/16/ EX	1061	[1046] fill of pipe	nade of	1	nporte	1				1740	1740	
DWF/16/ EX	1061	[1046] fill of pipe trench	nade of	1	nporte	1				1740	1740	
DWF/16/ EX Quite a th	1061 lick stem w	fill of pipe trench vith a large bore n fill of slate lined pit	nade of	1 fine in	nporte	1 ed clay.				1740 1660- 1730	1740 1660- 1730	
DWF/16/ EX Quite a th DWF/16/ EX	1061 lick stem w	fill of pipe trench ith a large bore n fill of slate lined pit [1098]	nade of	1 fine in 2	nporte	1 ed clay.				1740 1660- 1730 1700- 1800	1740 1660- 1730 1700- 1800	
DWF/16/ EX Quite a th DWF/16/ EX	1061 lick stem w	fill of pipe trench ith a large bore n fill of slate lined pit [1098]	nade of	1 fine in 2	nporte	1 ed clay.				1740 1660- 1730 1700- 1800	1740 1660- 1730 1700- 1800	
DWF/16/EX Quite a th DWF/16/EX DWF/16/EX DWF/16/EX Three ste	1061 lick stem w 1105 1112 1120 m fragmen	fill of pipe trench ith a large bore n fill of slate lined pit [1098] fill of small pit [1111] concrete and brick layer	o early	1 2 1 3 C18th	type,	1 2 2 1 3 all of w	hich have lime concight-stemmed pipe v			1740 1660- 1730 1700- 1800 1670- 1730 1680- 1730 from cess).	1740 1660- 1730 1700- 1800 1670- 1730 1680- 1730	are

on cylindrical stems and a rounded mouthpiece, that may have been smoothed after chipping or from use. One stem has a collar with fluted decoration on the bowl side surviving. The surviving stem is only 18mm long from this collar, and has been broken, but the pipe was still heavily used, resulting in clear tooth wear grooved top and bottom near the broken end. The one bowl fragment comprises the base of a spurless bowl with a stylised ribbon of leaves on the seams and a scroll design on either side (Fig. 20). There is the relief moulded pattern number 79 on the left-hand side of the stem, which shows that this came from a large workshop with a numbered catalogue of patterns.

Site	Cxt	Description	В	S	M	Tot	Marks	Cast	Decoration	Range	Deposit	Figs	
DWF/16/ EX	2009	fill of drain		4		4				1760- 1900	1760- 1900		
DWF/16/ EX	2014	fill of ditch [2022]		1		1		745.21	Chester border x 1	1720- 1760	1720- 1760		
A Chester stem with a bore of just over 5/64" and an impressed border of c1720-60 depicting two bird or griffin-headed scrolls flanking a leopard's head (Rutter and Davey 1980 border 57; Higgins Die 770).													
DWF/16/ EX	2018	Fill of modern intrusion	2	1		3	star with hollow in centre x 1		leaf seams x1	1760- 1900	1800- 1880	16	
complete and with s	spur bowl	with leaf decorate re/serrations to th	ed sear nem. Th	ns (Fig nere is	.16). [.] a sym	There a	gment is likely to be re some surface fla rk comprising an op 1810-1880, or even	ws in the neen centred	nould but the le	aves are qui	te neatly for	med	
DWF/16/ EX	2021	fill of ditch [2022]		1		1			glazed x1	1780- 1850	1780- 1850		
									which is unusua	al in that it is	completely		
Quite a long stem section (42mm) from towards the mouthpiece of a pipe (but not very near), which is unusual in that it is completely covered with a uniform and good quality. The glaze is of a slightly yellowish/buff colour. DWF/16/ 2024 primary fill 1 4 1 6 leaf seams 1760- 1870- 17, 22 EX of drainage 1920 1920													

The stems are of general late C18th or later types and include quite a long (98mm) section of a churchwarden pipe with a curved stem. There is also a nipple mouthpiece on a flattened stem end from a short-stemmed pipe that has been sharply bent. This style of pipe did not come in until the later C19th and the bowl was almost certainly decorated - just the very end of a textured surface survives (Fig. 22). This piece probably dates from c1870-1920. The single bowl is a complete spur type with leaf decorated seams of typical nineteenth century type, dating from around 1820-1900 (Fig. 17).

DWF/16/ EX	2025	fill of pit [2035]	18	49	7	74	TD / OO x 1; T. HOLLAND / No 203 x 1; B / Y x 1; 609 / Paris / FC x 1; L.Fiolet / a St Omer x1	746.1-3	various x 8; nipple mouthpiece x 6; dotted border x 1	1650- 1920	1870- 1890	23-30	
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This is the largest group of pipes from the excavations and comes from a pit fill. There are just one or two earlier residual fragments, such as a C17th or C18th stem fragment and part of a Liverpool style bowl of c1780-1810, but the majority of the more diagnostic pieces (marks, decoration and nipple mouthpieces) all point to a deposition date of around 1870-90 for the bulk of this material, with the 1870s being most likely. There could also be odd intrusive pieces of later date, as evidenced by the presence of a short piece of white plastic cable casing. The pipes themselves are described below. Unless otherwise noted these should be taken to date from c1870-90 and, most likely, just the 1870s. There are 12 plain bowl fragments, four of which join to make up the larger part of a spurless bowl (fresh breaks). There are at least three plain spur forms represented (e.g., Fig. 25) and at least three spurless forms, all of which were made in the same mould (Fig. 28). Six of the bowl fragments have moulded decoration on them and another two decorated types are represented by stem fragments with surviving traces. There is one residual body fragment from a large Liverpool style bowl of c1780-1810 with Masonic symbols (a square and compasses) surrounded by a wreath on the left-hand side. Another Merseyside style is represented by the larger part of a bowl with leaf seams and enclosed scallop decoration with stars above (Fig. 24). There is a shield flanked by foliage facing the smoker with just the first letter 'T' surviving. The initials in this shield would have been 'TD' (same mould as an example from ELF/15/EX 3207) and there is a circle symbol mark, like an O, on either side of the spur. The use of the shield surround is typical of pipes produced in the NW of England, most frequently around c1820-60, although given the later date of the associated material, it is possible that this mould continued in use unusually late. By the C19th, the initials TD used like this were used as a pattern name / part of the design, rather than representing a specific maker. There is part of a third pipe that just has simple leaf-decorated seams. The spur is missing but all three of these types would have had spurs, as opposed to the remaining three, which are all spurless. Two have rounded bases, one of which has small open leaves decorating the seams and the Prince of Wales feathers on each side of the bowl with ICH DIEN in the banner beneath (Fig. 27). The other has basket weave decoration on the bowl and stem decoration (Fig. 26), which is matched on one of the stem fragments, showing that two examples from the same mould are represented from this pit fill. The final bowl fragment has a rounded base and two sideways projections forming a horizontal bar under the bowl, which is textured and decorated (Fig. 23). On the sides of the stem is the incuse moulded serif lettering 'T.HOLLAND' within a relief moulded beaded border. The other side has a similar arrangement, but the script reads 'No203' is sans-serif lettering. This piece provides the best dating for the deposit since Thomas Holland of Manchester was only working in the 1870s (although his moulds were sold and re-used after his business closed, but often with his name deleted). Other marks include the incuse sans-serif lettering 'B... / ... Y' without a border, which would almost certainly have been the pattern name BURNS CUTTY on each side and two incuse stem stamps. One of these stamps reads 'L.Fiolet / a St Omer' for the famous firm of that name (Fig. 30; Cast 746.3) and the other 'Paris / FC', with the relief moulded pattern number 609 on the left hand side of the stem (Fig.29; Cast 746.1-2). This second mark is probably for Francis Cretal of Rennes, who was working around 1850-70. Examples of this FC mar k have also been found in the Williamson Tunnels in Liverpool (Higgins 2010) and in the closely dated Fort Hoskins in Oregon (1856-1866; Diane Zentgraf, pers. comm.). The Cretal fragment just has traces of moulded and enamelled bowl decoration surviving, showing that it would have been an ornate and more expensive product. There is also one thick stem fragment with a wide beaded border (but the name blanked out) and another stem with traces of fluted bowl decoration surviving. The seven mouthpieces comprise just one with an end that should have been cut (but has been left somewhat ragged), the other six all being nipple types, which are characteristic of short-stemmed or 'cutty' pipes that were popular at the period. Two have round stems running up to the nipple, the other four are flattened slightly before the nipple. It is also worth noting that the broken end of the Holland stem also shows slight abrasion top and bottom, suggesting that the pipe continued to be smoked even after it was broken and only had 50mm of surviving stem. While most of the pipes clearly had short stems, there are a few pieces of stem that must have come from long-stemmed pipes. Taken together, this group provides a good indication of the range of pipes that were available / being used in Flint around the 1870s, and which can be compared with other near contemporary groups from the region, such as the Williamson Tunnels group from Liverpool and at Big Lea Green group in Merseyside (Higgins 2010; Higgins 2012).

Site	Cxt	Description	В	S	M	Tot	Marks	Cast	Decoration	Range	Deposit	Figs
DWF/16/ EX	2026	Fill of ditch [2022]	1	2		3				1760- 1900	1800- 1880	
•		long-stemmed pi very little survive	•	late C1	18th o	r C19th	date and the spur f	from a long	j-stemmed pipe	e of <i>c</i> 1800-1	880 - probab	ly with
DWF/16/ EX	2027	Fill of ditch [2022]	2			2				1870- 1910	1870- 1910	19
		of <i>c</i> 1870-1910; of bowl with a pron					vith untrimmed sear pur (Fig.19).	ns and qui	te a thick stem,	the other a	rather elega	int and
DWF/16/ EX	2031	Fill of well [2030]		2		2				1700- 1900	1780- 1900	
Two stem	fragments	, the latest proba	bly <i>c</i> 17	80-190	00.		•			•		
DWF/16/ EX	2033	Deposit within ditch [2022]	5	1		6			leaf seams x 2	1680- 1900	1800- 1900	5
leaf decor Both spurs DWF/16/	ated seam	s and are probab ng but this was c Fill of ditch	ly from	the sa	ame m	ould, w	lain bowl with a mor hich has a poor sur e of pipe.			the bowl and	d stem surfa	
EX		[2022]								1900	1900	
Stem frag	ment just c	pening into a bo	wl, whic	ch app	ears t	o have	been a spurless typ	e.			,	
DWF/16/ EX	3007	Upper fill of bread oven [3006]		1		1				1780- 1900	1780- 1900	
		u			,						·	
DWF/16/ EX	3008	Fill of bread oven [3006]	1			1			leaf seams x 1	1800- 1880	1800- 1880	
A largely of	complete s	pur bowl with sim	ple lea	f deco	rated	seams.						
DWF/16/ EX	3049	Fill of pit [3044]		2		2				1660- 1730	1660- 1730	
Two stems	s of late C	17th to early C18	th type:	s, both	made	of a fir	ne imported fabric.					
DWF/16/ EX	3053	Fill of pit [3044]		3		3				1610- 1720	1660- 1720	
Three ster	ms of C17t	h or early C18th	types, t	two of	which	are ma	ide of a fine importe	d fabric, th	e third is a coa	rse Coal Me	easures clay	type.
DWF/16/ EX	3057	Fill of brick well [3058]	1	3	1	5			fingers or coarse flutes x 1	1760- 1910	1860- 1910	
are either	some sort	of very widely sp	aced fl	utes o	r, more	e likely,	all C19th. The bowl stylised finders from has a simple cut end	n a hand th	,	, ,	,	
DWF/16/ EX	1009 / 1010 / 1011	structure		1		1				1680- 1740	1680- 1740	
		t, stem fragment d) numbers.	(76mm) of c1	680-1	740 ma	de of a fine, importe	ed fabric. T	he bag is label	led with thre	ee different c	ontext

There are Liverpool s family of H The rest o the other b cut ends w	one of two style stam lawarden	Ditch Fill Insistent looking go fragments that co	21	61	2	84	HAYES. HAWARDEN x 1; FITZG x 1	745.26; 745.28	leaf seams x 7; Masonic x 1; armorial	1740- 1900	1820- 1850	13, 18
There are Liverpool s family of H The rest o the other b cut ends w	one of two style stam lawarden	o fragments that o	roup of		1				1; glazed x 3			
example refolds in the depicted a bowl has be a decorative in the Live the upper right, but v 73.13). The piece community for traces this particuthe assential the design of the design	ournt to a vithout any c spur pipe epresents e clay. The e clay. The peen mad ve motif o rpool area part of ea vithout an is mould r prises jus f a crowne of suppo-	(745.28). The other are plain apart of greyish colour. It is a y surviving trace content of the latest diagnost of the latest of the la	er is pa from thi s clear of a coa ss pipe stic pie gments those fo uality n e bowl (but this vl with a below nade by the bar opears t e, press ade in \ es a typ	art of a ree with that no ting. The spurice from that are ound in mould with a single A similar of a condition on the spurice of a condition on the spurice of a condition of a similar ound by whether that the spurice of a condition	Fitzgram h small control of the booless son the action of the booless son the action of the booless of the bool	erald stall splas of the picture is a specific s	ne maker's name an amp from Chester (" thes of glaze on their ipes were tipped sin all damaged or fragoly came into fashious lated with leaf seams and cruding. These motifs are before basic in design or on the left-hand side quality) design has er and the pipe cleathe smoker, and is apon the left side and promiser is a close or ide to pipes the majority low-quality products	745.26). TIM from tip ce the two mentary. In around the formal or are just two lely execute assed on the (Fig.13). In de and a Mobeen foundry looks lil also quite led, possibly es of this tyntical examof which de in the formal of which de in the formal of the formal from the formal fro	nese stamps we coatings; one p mouthpieces refered to the pine middle of the pine middle of the different spur be opieces with med decoration one panel decoration one pieces with med decoration of the panel decoration of the piece is a deep plasonic motif (so d in Chester (Rece a provincial poddly cut in a pine piece piece piece piece), three lions on the piece pi	ere used fro ale green, con ale green, comprising leated bowls frieze of vequare and counter and Doiece from Norovincial stythe right (Figure 2007), venum or the green, con all green, co	m c1770-18 one pale bro oth have sim ain and repre d so this one turing cracks aves are all decoration. eaf seams a that were portical lines a compasses) avey 1980, NE Wales. T He. The decor g.18). There egionally an Hawarden a which provid	wn and uple esent es and simply One und then pular round on the Fig. he final oration es are darea. es a
made loca	lly. Almos		ad long	g stems			round 15") and, colle					
EX						<u> </u>			24211.)	1900	1900	
ELF/15/	33	Ditch Fill	n or C1	19th typ	oes (b	ut mos	t likely to be late C1	8th to mia-	C19tn).	1680-	1680-	Ī
EX EX	<u> </u>	DILCH FIII		'		'				1760	1760	
One plain	stem of la	te C17th to mid C	18th ty	rpe.					•			
ELF/15/ EX	34	Ditch Fill		3		3				1680- 1920	1800- 1920	
Three plain	n stems o	f mixed dates, the	latest	probab	oly of	C19th c	or later date.					
ELF/15/ EX	41	Ditch Fill		1		1				1800- 1920	1800- 1920	
One very t	hin stem	fragment from a g	ood qu	ality pi	pe, pr	robably	a 'straw', most likely	y of C19th	or later date.			
ELF/15/ EX	43	Ditch Fill		5		5				1680- 1800	1700- 1800	
Five plain	stems of l	late C17th or C18	th type	 S.		<u> </u>						
ELF/15/ EX	45	Ditch Fill	2	10		12				1610- 1800	1700- 1800	
	of stem is	. ,				,	e others appear to be erent deposit of this	,	pes. This fits wi	ith the two b	owl fragme	nts,
One piece	ich appea	ar to be from C18t										

because it is blurred, but it looks most similar to type E (Higgins 1983, 51).

ELF/15/ EX	47	Ditch Fill	1			1				1690- 1740	1690- 1740	
The larger	nart of a t	ransitional Chest	er style	snur l	nowl c	of c1690	1740 The rim is so	nuare cut	hut still forward	leaning Ah	out one third	of the

rim survives, none of which is milled.

ELF/15/ EX	64	Ditch Fill	1	8	9		1610- 1900	1780- 1850	

The stems include one residual looking piece of C17th or C18th date, but the others all look to be later C18th or C19th in date. There is one spur fragment of c1780-1850 (all the bowl missing), which provides a likely date for this deposit.

E1 E24 = 2	Cxt	Description	В	S	М	Tot	Marks	Cast	Decoration	Range	Deposit	Figs
ELF/15/ EX	65	Ditch Fill	1	5		6				1610- 1800	1690- 1740	
							dating is suggested stinctive type with a				art of a Che	ster
ELF/15/ EX	66	Ditch Fill	1	12		13				1610- 1770	1690- 1740	
							dating is suggested and all would fit well					ster
ELF/15/ EX	95	Ditch Fill	1			1				1680- 1780	1680- 1780	
A single b	ody sherd	from a bowl, which	ch is pr	obably	of lat	e C17th	or C18th date.				,	
ELF/15/ EX	2176	Fill of service trench	6	13		19				1680- 1800	1710- 1750	2
relatively I rim fragme a spur for Brookhill, from arou ELF/15/ EX	large and tents (4) are my with a di Buckley, wnd 1710-50	hin-walled bowls e cut and without stinctive 'hump' to thick were probat 0, providing the b fill of posthole / pit [2177]	of C18 any mi o the b oly mad est dat	th type lling or ack of le in th ing evi	s, which interior int	ich prov nal trimi owl (Fig. a (Higg for this	J.H x 1	ndication for the bowl frag ked but of & p58). Th	or the date of the gments are burn a very similar s is form has a fo	is deposit. Anished. The hape to eigh prward slopin 1700-1900	All the surviv most compl nt examples ng rim and d	ing ete is from ates
							k one that was parti eading 'J.H ', mos				r to firing. Th	ne best
ELF/15/ EX	2213	layer		5		5	S.HAWARDEN x 1	745.27		1610- 1900	1770- 1840	
							e. The remainder are ARDEN' for one of t					
ELF/15/ EX	3001	overburden	3	5		8			leaf seams	1610- 1900	1800- 1850	
surface. T bowls. On C18th or 6	he remain e is a dam	der are of late C1 naged Chester sty n spur bowl fragm	8th or le bow	C19th	types 690-17	and ap 740 with	ment made of a coa pear to be from long n a large, flared, ova de leaf decoration of T.HOLLAND / No345 x 1	g-stemmed al heel (and	types of pipe. d clearly residua	Better dating al) but the o	g is provided ther two are	l by the late
									x 1		1090	
a short, th border). T bowl end deposit. T that almost	nick and quant The stem wathas been foot Thomas Ho Thotas Ho	ite sharply tapere ould have been a reshly broken off lland was a good related to a publi	ed type round and wa -quality shed c	marke 9cm lo as prob pipem atalogi	d T.Heng ori Dably I Daker Daker Dake (no	OLLANI ginally a ost duri operatir o examp	nd mouthpiece join (D / No 345 (Fig.21; and has a nipple tip ing excavation, sugging in Manchester dubles of which are knodate of around 1870	incuse ser with flatter gesting tha uring the 18 own to hav	to make up an if lettering withined oval stems the whole pipe 370s, with a nure survived). Ma	n a relief mo section runn e was proba mbering sys any of the m	plete stem coulded beadering up to it. I bly present tem for his r	ed The in this noulds
a short, the border). To bowl end in deposit. To that almost and reuse ELF/15/EX A problem or two stepart of a Cexample for The oval of which proplain body deformation ELF/15/EX	nick and quite stem whas been for the stem whas been for the stem whas been for the stem with the st	ite sharply tapere ould have been a reshly broken off lland was a good related to a publimakers after the layer to date accurate be residual C17th rder and oval staur's Walk (Rutter a asonic emblems, best dating for this here is one stem zing looks more a fill of pit [3054]	ed type iround and war-quality shed country busines 3 y, mos but the mped country while is group that is acciden	marke 9cm lo as prob or piper ataloguess clos 17 t of thee e major on it. Bo vey 19 he bor or, and f quite s tal than	d T.Hing ori inably I naker use (no cosed, g seed, g seed) ovader hat its wit its witharply n inter	OLLANI ginally a ost duri operatir o examp iving a 20 es being ok C18ti amp typ al 2 (Fig as stylis h the ga y curve ntional a	ord mouthpiece join (D / No 345 (Fig.21; and has a nipple tip ing excavation, sugging in Manchester dubles of which are known date of around 1870 (D order to the control of the control o	incuse ser with flatter gesting that the gesting that it is series of the series of th	to make up an if lettering withined oval stems to the whole pipe 370s, with a number survived). Material and a varyed and warped x1 without particular and c18th data m Chester and e98); Higgins ditamp types have the three bowlerial and a blistin a kiln group.	n a relief mosection runne was probambering sys any of the mother this pipe. 1610-1900 arly diagnose). One of the both occures 656 and e been date fragments, tered olive control 1800	plete stem coulded beading up to it. The stem for his roulds were stem has together on 811 respection of the country of the stem has together on 811 respection of which a green-glaze.	One s an vely).
a short, the border). To bowl end ideposit. To that almost and reuse ELF/15/EX A problem or two stepart of a Cexample for The oval	nick and quite stem whas been for the stem whas been for the stem whas been for the stem with the st	ite sharply tapere ould have been a reshly broken off lland was a good related to a publimakers after the layer to date accurate be residual C17th rder and oval star's Walk (Rutter a asonic emblems, pest dating for this here is one stem zing looks more a fill of pit [3054] s, two of which all	ed type iround and war-quality shed country busines 3 y, mos but the mped country while is group that is acciden	marke 9cm lo as prob or piper ataloguess clos 17 t of thee e major on it. Bo vey 19 he bor or, and f quite s tal than	d T.Hing ori inably I naker use (no cosed, g seed, g seed) ovader hat its wit its witharply n inter	OLLANI ginally a ost duri operatir o examp iving a 20 es being ok C18ti amp typ al 2 (Fig as stylis h the ga y curve ntional a	nd mouthpiece join (D / No 345 (Fig.21; and has a nipple tip ing excavation, sugar in Manchester dubles of which are known attention of the control of the c	incuse ser with flatter gesting that the gesting that it is series of the series of th	to make up an if lettering withined oval stems to the whole pipe 370s, with a number survived). Material and a varyed and warped x1 without particular and c18th data m Chester and e98); Higgins ditamp types have the three bowlerial and a blistin a kiln group.	n a relief mosection runne was probambering sys any of the mother this pipe. 1610-1900 arly diagnose). One of the both occures 656 and e been date fragments, tered olive control 1800	plete stem coulded beading up to it. The stem for his roulds were stem has together on 811 respection of the country of the stem has together on 811 respection of which a green-glaze.	One s an vely).

Site	Cxt	Description	В	S	М	Tot	Marks	Cast	Decoration	Range	Deposit	Figs
Two stems	s, both of a	1660-1740.										
ELF/15/ EX	3060	fill of pit [3054]		1		1				1680- 1780	1680- 1780	
ELF/15/ EX	3124	fill of modern feature		1		1				1750- 1900	1750- 1900	
ELF/15/ EX	3166	construction / bedding deposit for [3005]	3	10		13			?leaf seams x 1; green glaze x 1	1760- 1910	1840- 1860	
fragment of The other	comes fron two fragm	n a very crudely r ents are from spu	nade n ırless b	nould to	hat m	ay have which	nin pale green glaze had slight marks fl is almost complete. a mid-C19th dating	anking the This is als	seams intende o of poor qualit	d to represe	nt leaf deco	ration.
ELF/15/ EX	3176	layer		3		3				1610- 1900	1780- 1900	
One small	residual c	hip from an earlie	er stem	and tv	vo of l	ate C18	8th or C19th types.				,	i
ELF/15/ EX	3182	fill of ditch	4	3		7				1680- 1780	1710- 1750	3
A good-loo bowls are	good qual	p containing relat ity Chester style :	spur fo	rms of	c1710)-50. Th	I ng fragments. The s ney are probably all group from a housel	from differen	ent moulds alth voured this par	or C18th typ ough all of v	pes and all the very similar f	
EXF/15/	3188	N/A		1	1	2			nipple mouthpiece x1	1910	1910	
One stem	of late C1	8th or later date a	and a n	ipple n	nouth	oiece or	n a fairly thin stem o	lating from	<i>c</i> 1840-1910.	•		•
ELF/15/ EX	3191	fill of cellar [3190]		1		1			green glaze x 1	1780- 1860	1780- 1860	
A stem fro	m near a t	ip that was coate	d with	a thin a	and sl	ghtly ye	ellowish green glaze	e. -	¥		,	
ELF/15/ EX	3201	layer		1		1				1680- 1780	1680- 1780	
		rd to date accura	tely, bu	ıt prob	ably la	ate C17	th or C18th.		,		,	
ELF/15/ EX	3207	fill of well [3206]	4	18		22	TD x 1		enclosed scallop decoration and stars x 1; leaf seams x1	1760- 1900	1820- 1880	24
bowls from the fourth foliage fact from DWF The use of identical et the Merse fragments	n the same is a fragment of the small of the small of the shield example from the showing same as the	e mould with a poent from a bowl woker with just the 25), which, by the surround, howe om DWF/16/EX 20 or a local copy coings of burning, the surround of the	or-qual vith lead second control of that second control of the second co	lity plai f seam d lette n, were typical me froi style. C	n bow s and r 'D' s used of pip m a pi	vl (surfa enclose urviving as a pa es prod t fill tha this gro ving bee	the four bowls, all of ce flaws and poorly ed scallop decoration. The initials in this attern name / part of luced in the NW of Et could be as late as one pincludes a lot of en discarded into a little.	fitting halven with star shield wou f the design England, m s c1890. The f cheap loo	res). Another both a sabove (Fig. 2 ld have been '7 n, rather than roost frequently anis TD bowl couking, poorly fini	owl has simp 4). There is TD' (same mepresenting around c182 ald either be shed pipes,	ole leaf sean a shield flar ould as an e a specific m 0-60, althou an import fr with severa	ns and nked by example aker. igh the om
ELF/15/ EX	3219	layer		·		5				1700- 1850	1700- 1850	
		1	th type		hard t	I	within this period ac	curately.	1	1,765	1,	Ι
ELF/15/ EX	3251	fill of modern posthole		1		1				1700- 1900	1700- 1900	
		rd to date accura		ıt prob	ably C		C19th.		1		1	i
ELF/15/ EX	3253	fill of modern posthole [3252]	1			1				1700- 1730	1700- 1730	4
	C18th Ches	ster style bowl wit	h a ver	y sma	l pede	estal typ	pe heel.					
ELF/15/ EX	3297	Fill of boundary ditch [3294]		1		1				1760- 1900	1760- 1900	
A single fr	agment, h	ard to date accura	ately, b	ut prok	ably l	ater C1	8th or C19th.					
ELF/15/ EX	3328	fill of small pit [3229]		1		1				1760- 1900	1760- 1900	
A single fr	agment, h	ard to date accura	ately, b	ut prob	ably l	ater C1	8th or C19th.					

Site	Cxt	Description	В	S	M	Tot	Marks	Cast	Decoration	Range	Deposit	Figs
ELF/15/ EX	3333	Fill of ditch [3329]		1		1				1660- 1700	1660- 1700	
A thick ste	em made o	f a coarse local C	Coal Me	easures	s clay	with a	arge stem bore and	l a finely bu	urnished surfac	e.	·	
ELF/15/ EX	3336	Fill of ditch [3329]		8		8		745.20; 745.25	cross and dot border x 1; tendril border x 1	1680- 1780	1720- 1760	7, 8
to be prev The stem a stylised for the gro from the d	riously unre bore of this fleur-de-lys oup. Both b lecorated a	ecorded types. On s piece is just ove s (Fig. 8; 745.25) orders were som areas using a wea	ne has er 5/64' . The b ewhat ak acid	a crud '. The order sobscur so tha	e crosother in the crosother is the crosother in the cros	ss and one of this state of this state of this state of this state of the order of	oo of which have Ch dot style of decoration r lightly impressed be amp is characteristic scale deposits, suggould be recorded. To tarts about 80mm fi	on that pro out seems ic of others gesting a c he tendril t	bably dates fro to have some s of c1720-60,a ess type depos type border occ	m c1690-17 ort of tendril nd provides sit, which has urs on a lon	20 (Fig. 7; 7 I border, or p the best dat s been remo g (96mm) si	45.20). cossibly ting oved tem
ELF/15/ EX	3349	layer		2		2				1700- 1800	1700- 1800	
	s just open	ing into bowls, bo	oth of w	vhich a	re like	ly to be	C18th pieces.				1	
ELF/15/ EX	3358	layer (overburden)		9		9				1680- 1800	1700- 1800	
A consiste	nt looking	group of stems, a	all of w	hich ar	e prol	oably la	te C17th or C18th ir	n date.				
ELF/15/ EX	3435	Fill of cut [3434]	1	1		2				1800- 1900	1800- 1850	10
							f <i>c</i> 1800-1850 (Fig.1 d seam, which has			ty with surfa	ce defects ir	1 the
ELF/15/ EX	3459	slot 12 - fill of pit [3458]		1		1				1740- 1900	1740- 1900	
Broadly c	1740-1900	type of stem, but	most l	ikely la	ite C1	8th or e	early C19th in date.			•		
ELF/15/ EX	3519	Fill of modern service [3518]		1		1				1850- 1920	1850- 1920	
Part of a s	hort-stemr	ned cutty pipe.					•		•			
ELF/15/ EX	3573	Deposit	2	11	1	14				1610- 1900	1840- 1900	
Measures stems are	clay. The too of a similar	two bowl fragmer	nts join diagno	(freshl	y brok ece be	en) to eing a n	h stem fragment wit make up the larger p ipple mouthpiece of ely.	part of a la	te C18th or ear	ly C19th spu	ır bowl. Mos	st of the
ELF/15/ EX	3580	Fill of cut for wall [3572]		3		3				1700- 1900	1800- 1900	
Three sma	all stem fra	gments, one prol	oably o	f C18tl	n date	and th	e other two C19th.		1		,	
ELF/15/ EX	3586	Fill of ditch [3585]	2	2		4				1680- 1730	1680- 1730	
Four fragr sherd only		f late C17th or ea	arly C1	8th typ	es. Th	nere is a	a small surviving fra	gment of a	heel - the othe	er bowl fragn	nent being a	body
ELF/15/ EX	3638	Fill of ditch [3637]	1	5		6				1610- 1730	1660- 1730	
clay, as is	the small	bowl fragment,	which	comes	from	a fairly	th type. Three of the large barrel-shape the or early C18th ty	ed bowl of				
ELF/15/ EX	3650	Fill above (3651)		3		3				1660- 1900	1760- 1900	
		are hard to date n or C19th.	e accui	rately.	One	piece is	late C17th or earl	y C18th, c	ne piece prob	ably C18th	and the thir	d
ELF/15/ EX	3654	Possible deposit above 'road'		3	1	4				1700- 1900	1760- 1900	
							mouthpiece, which Bth or C19th date b				d and is pro	bably

	Cxt	Description	В	S	M	Tot	Marks	Cast	Decoration	Range	Deposit	Figs
ELF/15/ EX	3661	Road surface at NE end of site	4	6		10			fluted heel x 1; green glaze x 1	1680- 1900	1780- 1830	
depositio down the along the	n. The boy sides of it stem tow	wl fragments incl ts heel. There is ards the smoker.	ude the then a . The ri	ree Ch much im of th	ester later nis bo	style h style bo wl has	ut the more diagno leels of late C17th lowl of c1780-1830 a mould line arour vith a pale yellowis	to mid C18 with a larg nd it where	8th date, include ge, thin-walled git has been a	ding one wi form and th	th fluted ridence the spur set	back
ELF/15/ EX	3815	U/S		1		1		1		1750- 1850	1750- 1850	
stop at 36	63. The n	,	writter	n on th	e find	s bag l	e that this number sout must have beer					
ELF/15/ EX	US (EX)			2		2				1700- 1900	1700- 1900	
Plain ster	ns of C18	th or C19th type:	s.									
ELF/15/ EX	US (SM)			4		4				1700- 1900	1700- 1900	
	ns of C18	th or C19th type:	S.	,								
PSF/16/ EX	003	Ditch Fill	2	11	1	14	ring and dot x 1; dot x 1			1760- 1900	1800- 1860	
probably low qualit	date from y products	c1800-1860. On	ly the	spurs	of eac	h survi	th types and the sto ive, so it cannot be nas what appears t	seen if th	ey were decor	ated, but bo	oth appear t	to be other
PSF/16/ EX	004	Ditch Fill	4	10		14	HAYES. HAWARDEN x 1; stars x 1	745.29	internal bowl cross x 1; Leaf seams x 1;	1610- 1900	1810- 1850	9, 14 15
four bowl	fragments	s. There is one d	amage	ed Che	ster s	style bo	the others appear wl of c1710-80 wit 780-1850 bracket.	h an interr	nal bowl cross	but all the o	other bowls	
four bowl essentiall seams, o This is po to the sta c1810-50 likely to h (Fig. 9).	fragments y complet ne of whice orly define r. The bow (Fig. 15) ave been	s. There is one de spur types that halso has cruded ed, and an attern with leaf seam and provides the made locally. Or	amage t proba ely exe ppt may s prob e best o ne of th	ed Che ably fal cuted y have ably da date fo ne sten	ester s I withing swage been ates for the constant	style bo in a c17 s on the made rom arc context s a ster	wl of c1710-80 wit	h an interr There is o star symb he mould. ig. 14) wh owls are e	and swags x 1 th or C19th tyl hal bowl cross ne plain exam hol mark mould There appear ille the swags a everyday types	but all the or ple and two led on either s to have be as well probes with a provinch dates	other bowls with simple of the er side of the een a centroably dates vincial feel a from c1770	e leaf e spur. al dot from and
four bowl essentiall seams, o This is po to the sta c1810-50	fragments y complet ne of whice orly define r. The bow (Fig. 15)	s. There is one de spur types that the also has cruded and an attern with leaf seam and provides the	amage t proba ely exe ppt may s proba e best o	ed Che ably fal cuted a y have ably da date fo	ester so I withing swage been ates for the	style book in a c17 s on the made rom arc	wl of c1710-80 with 780-1850 bracket. It is bowl sides and a to remove it from the bound 1800-1050 (Figure 1800-1050 (Figure 28 as a whole. The b	h an interr There is o star symb he mould. ig. 14) wh owls are e	and swags x 1 th or C19th tyl hal bowl cross ne plain exam hol mark mould There appear ille the swags a everyday types	but all the or ple and two led on either s to have be as well probes with a prov	other bowls with simple or side of the een a centro pably dates vincial feel a	e leaf e spur. al dot from and
four bowlessentiall seams, of This is pot to the star c1810-50 likely to h (Fig. 9). PSF/16/EX Three of remaining	fragments y complet ne of whice oorly define r. The bow (Fig. 15) ave been 006 the stems g stem and	s. There is one de spur types that halso has crudeded, and an atternal with leaf seam and provides the made locally. Or Ditch Fill are of C17th or de mouthpiece joint of the spur that hall the spur that	amage t proba ely exe ppt may s prob e best c ne of th	ed Cheably fall cuted by have ably date fonce sten	ester s I within swags been ates for the ons had 1	style book in a c1 is on the made rom arc context is a steri	wl of c1710-80 with 780-1850 bracket. The bowl sides and a to remove it from the bound 1800-1050 (Figure as a whole. The bin stamp reading as a damaged spur both, and come from	h an interr There is o star symb he mould. ig. 14) wh owls are 6 .HAYES.H	and swags x 1 th or C19th typ hal bowl cross ne plain exam hol mark mould There appear file the swags a everyday types HAWARDEN, v nsitional Ches n a long slender	but all the cople and two led on either s to have be as well proberwith a provinich dates 1610- 1850 ter type of cople and two led and t	other bowls with simple or side of the een a centrably dates vincial feel a from c1770 1700- 1850 21680-1730	e leaf e spur. al dot from and 0-1840
four bowl essentiall seams, o This is po to the sta c1810-50 likely to h (Fig. 9). PSF/16/ EX Three of remaining	fragments y complet ne of whice oorly define r. The bow (Fig. 15) ave been 006 the stems g stem and	s. There is one de spur types that halso has crudeded, and an atternal with leaf seam and provides the made locally. Or Ditch Fill are of C17th or de mouthpiece joint of the spur that has been supported by the spur that had been supported by the	amage t proba ely exe ppt may s prob e best c ne of th	ed Cheably fall cuted by have ably date fonce sten	ester s I within swags been ates for the ons had 1	style book in a c1 is on the made rom arc context is a steri	wl of c1710-80 with 780-1850 bracket. The bowl sides and a sto remove it from the bound 1800-1050 (Figure as a whole. The bin stamp reading	h an interr There is o star symb he mould. ig. 14) wh owls are 6 .HAYES.H	and swags x 1 th or C19th typ hal bowl cross ne plain exam hol mark mould There appear file the swags a everyday types HAWARDEN, v nsitional Ches n a long slender	but all the cople and two led on either s to have be as well proberwith a provinich dates 1610- 1850 ter type of cople and two led and t	other bowls with simple or side of the een a centrably dates vincial feel a from c1770 1700- 1850 21680-1730	e leaf e spur. al dot from and 0-1840
four bowlessentiall seams, of This is pot to the starcts of the st	fragments y complet ne of which oorly define r. The bow (Fig. 15) ave been 006 the stems g stem and bly falls so 007 s are of m d surfaces the bowl f t of a tall,	s. There is one de spur types that shalso has crude ed, and an atternyl with leaf seam and provides the made locally. Or Ditch Fill are of C17th or de mouthpiece join to mouthpiece join to mouthpiece is one where within the control of the contro	amage t proba ely exe ppt may s prob e best c ne of th 1 1 19th da ng (95) i is one m of c1	ed Cheably fall cuted by have ably didate for the sten as a sen as	ster s s within swags been steen s fir r the same share s fir r the same s fir r the	etyle both a c17 s on the made rom arc context s a ster 6 and the n section acket. T 14 les, incof late 0 f from c which p	wl of c1710-80 with 780-1850 bracket. The bowl sides and a to remove it from the bound 1800-1050 (Figure as a whole. The bin stamp reading as a damaged spur both, and come from	h an interr There is o star symb he mould. ig. 14) wh owls are e .HAYES.H wal is a tra a pipe with s a simple or early C1 th type tha C18th bow ating for th	and swags x 1 th or C19th type all bowl cross are plain example and mark mould. There appear alle the swags are everyday types dAWARDEN, where a long slendicut end. 8th pieces mat looks very frow and two joini is deposit (Fig.	but all the ople and two led on either is to have be as well prober with a provinch dates 1610-1850 ter type of or er stem. The 1610-1900 de of a coalesh, and thing sherds to 12). The residue of the coalesh is the coalesh and the coale	other bowls with simple or side of the een a centrably dates vincial feel a from c1770 1850 1680-1730 is is hard to 1780-1830 rse local clas would fit what make u	e leaf e spur. al dot from and 0-1840 The date, ay with with the p the
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Site	Cxt	Description	В	S	М	Tot	Marks	Cast	Decoration	Range	Deposit	Figs
PSF/16/ EX	111	Fill of pit [105]	1	2		3		745.22	Chester border x 1	1680- 1850	1720- 1850	
piece fror	n a pipe w	ith quite a thin, s	straigh	t lookir	ng ste	m, whi	e stem border on it ch is most likely <i>c</i> 1 ely of C18th date.					
PSF/16/ EX	114	C17th/C18th Road Surface	3	9		12			yellowish green glaze x 1	1610- 1900	1780- 1900	
are late C are all bro	18th or Coken and	19th in type and	one ha	as a ve	ery sn	nall spla	ed and mixed depor ash of yellowish gro C17th bowl, a late (een glaze	from a tip coat	ting on it. Th	ne bowl frag	ments
PSF/16/ EX	115	C17th/C18th Road Surface	1	11		12				1610- 1800	1700- 1800	
types and	the smal	l body sherd from	n a bov	wl is pr	robab	ly C18t	n actively disturbed h but could be eve ggested for the gro	n later. Or				
PSF/16/ EX	135	Deposit		1		1				1700- 1850	1700- 1850	
PSF/16/ EX	138	Deposit		1		1				1700- 1850	1700- 1850	
Total			121	417	32	570	18					

Appendix 2 – List of Pipemakers from North-East Wales

Prior to this study, there were only nine known pipemakers from anywhere in north Wales (Evans 1981, 59). Their periods of production were poorly documented and eight of them were from Buckley, suggesting just a single potential source of Welsh pipes for the inhabitants of Flint. A rapid survey of documentary sources for north-east Wales available online (primarily via Ancestry and Findmypast using parish registers and census returns), as well as in the 1841 Wrexham census and Welsh trade directories available at the record office in Wrexham Museum, has produced a list of around 70 pipemakers at nine or ten different centres in north-east Wales. This shows that there were many more pipemakers and potential sources of pipes than has previously been recognised. While it has not been possible to carry out an exhaustive study or to consult original documents in record offices, it has been possible to show that pipemaking was much more widespread in north-east Wales than had been thought. The sources consulted have a clear bias towards the nineteenth century when directories and census returns are available, but these indicate locations where earlier production could also have taken place.

While the following can only be regarded as an initial working list, it does at least provide a much-improved platform for future research. Many of the makers identified moved from place to place during their working lives, while it is their initials that usually occur as makers marks on pipes. For this reason, the information gathered is presented in three different ways. First, in Section A, an overview of each production centre is given. This briefly lists the makers known to have worked there, together with a summary of their presently recorded dates. A topographical text then discusses the evidence for pipe production in that particular place.

The place summaries are then followed by detailed biographies for each of the pipemakers identified (Section B). These are arranged in a single alphabetical list (by surname and then Christian name), since many of the individuals worked in more than one location. This allows all the known information about any given individual to be easily located in one place as well as providing a simple single list into which new information or names can be added as they are discovered. Where the documentation is quite complex, the known references for each individual are listed first, in date order, followed by a short overview of their life. The places and dates where each individual is documented as a pipemaker are listed after their names.

While this list is only intended to include clay tobacco pipemakers, the situation is often complicated by ambiguities in the original sources, particularly the census data, where occupation was dependant on the enumerator's description. The area around Holywell had a significant lead extraction and processing industry during the nineteenth century, which included several lead pipemakers. These are often specifically described as such in the census returns, but uncertainty can arise when just 'pipe maker' is written. So far as possible, individuals described as lead pipemakers (or recorded elsewhere as lead pipemakers in other documents) have been excluded from this list, while those known to have been tobacco pipemakers are included. A similar situation arises in the cluster of settlements between Mold and Hawarden and in the region around Ruabon. Both of these areas were significant brick and tile producing centres during the nineteenth century, and many of the brickworks also produced field drain or sanitary drain pipes. The makers of these are variously described as 'sanitary pipemaker' or 'earth pipemaker' (a term that was sometimes also applied to clay tobacco pipemakers), or simply as 'pipemaker'. These descriptions clearly caused problems even at the time, since the original census entry has often been subsequently annotated in another hand with additional terms such as 'earth', 'sanitary' or 'tob' to clarify which was intended – but even this was not always done accurately. As a result, it is possible that the list compiled here contains the odd drain pipemaker or has erroneously excluded an actual tobacco pipemaker. For this reason, the detailed biographies generally include the actual trade description as given in the original source so as to make the surviving evidence for occupation clear.

To avoid tedious referencing, any dates between 1841 and 1911 ending with a '1' can be taken to refer to census records (unless otherwise stated). Likewise, specific dates given for baptisms, marriages, etc, can be assumed to have been taken from scans of original documents unless otherwise noted. Individual references are given for other sources that are not taken from either Ancestry or Findmypast. Most of the 1841 census for Wrexham is lost and so not available online – the surviving section was consulted using a typescript copy in Wrexham Museum Archives.

The final part of this appendix (Section C) provides a summary list of the pipemakers by initial. This is arrangement is ordered by surname initial first, then Christian name initial and finally by the earliest recorded date (where more than one individual with the same initials exists). This allows the option(s) for any given maker's mark to be easily found, while at the same time providing a handlist of all the makers from the region together with a summary of the dates and places where they worked. The initial 'I' has been substituted for 'J' in the list, since this is the form in which it is usually found on marked pipes.

Section A - Summary by Place

This first section provides a summary of each place for which pipemakers are documented in the original records. The

pipemakers are listed first, so as to act as an index for their full biographical details in the following list (Section B). Where several makers share the same name, they are distinguished by giving their birth and death dates, rather than allocating them numbers. The working periods for each maker are given as well, so as to provide an overview for when pipemaking is known (or suspected) to have been taking place in each location. A short text then provides a summary history of pipemaking in that place, highlighting individual workshop locations where these can be discerned. A map of the various locations is shown as Figure 1.

ASTON

Thomas Hayes (1808-1841+; recorded pipemaking at Aston, Hawarden, in 1841)

Aston is a small settlement about a mile NNW of the centre of Hawarden, and a similar distance from Ewloe. A pipemaker called Thomas Hayes is recorded living in Ewloe Lane, Aston, in 1841. He was the son of Hawarden pipemaker Jeremiah Hayes (1783-1836). See also Bistre, Buckley, Ewloe, Hawarden, Llong and Mold for other pipemakers working in this area.

BISTRE

Thomas Boyde (recorded as a pipemaker at Bistre, Buckley, 1851-1861)

Samuel Eastwood (recorded as a pipemaker at Hawarden in 1840, at Bistre, Buckley, in 1841 and in Halifax 1851-1881)

Elizabeth Evans (recorded as a pipemaker at Bistre, Buckley, 1841)

Elizabeth Hayes (recorded as a pipemaker at Hawarden from 1828-1835 and at Bistre, Buckley, in 1841)

William Hewson (recorded as a pipemaker at Bistre 1841 and probably at Darlington, Co Durham, +1852-1861+)

George Jones (recorded as a pipemaker in Chester 1812-1832 and at Bistre 1851-1861)

William Jones (recorded as a pipemaker at Bistre in 1881)

Peter Morris (recorded as a pipemaker at Bistre before 1856)

Joseph Riley (recorded as a pipemaker at Bistre 1841 and at Keighley, West Yorkshire, 1851-1881)

James Wilson (recorded as a pipemaker at Bistre in 1851)

Bistre lies on the western side of Buckley, with which it merges, and only seems to have become a separate parish in 1844 (Wikipedia - https://en.wikipedia.org/wiki/Buckley; accessed 13-8-18). Historically it seems to have come under the administrative area of Mold, although it was often perceived by the layman as forming part of Buckley, most of which came under the administration of Hawarden. This has led to some confusion in the old records as to exactly where any particular pipemaker worked. Elizabeth Hayes, for example, may well have taken over her father Jeremiah's workshop when he died since she appears herself in the 1828-1835 trade directories listed under Hawarden. But these directory references could well have been referring to the same workshop as that at Bistre, where she was recorded in the 1841 census. A similar blurring of place names occurs in 1906 when Cropper (p44) says:

The last pipe works at Buckley was closed over 50 years ago [i.e., before 1856]. This was situated a stone's throw from Bistre Church, and was owned by a Peter Morris. Some houses in the vicinity are still known as Pipe Clay Row. In this case the clay came from the South of England, where most of it is procured for manufacture in the pipe-making trade to-day.

In this reference he starts by talking about pipemaking in Buckley but then says that the last works was specifically at Bistre. His account also appears to be incorrect on two points in that Peter Morris himself appears from contemporary records to have been a wire worker rather than a pipemaker (although he was living next door to the pipe works and his widow married a pipemaker there) and, secondly, since pipemakers have now been recorded at Bistre until at least 1861, which was less than 50 years before he was writing. From the evidence that has been found, it is suggested that Jeremiah Hayes (1744-1820) might have originally operated the workshop at Bistre 'a stone's throw from the church', and that following his death in 1820 it was taken over by his unmarried daughter Elizabeth (1787-1842). She ran it with the help of others, including her niece Elizabeth, who had married the Halifax pipemaker Samuel Eastwood. After Elizabeth died in 1842 the Hayes connection with the site appears to have ended and, by 1851, Samuel Eastwood was back in Halifax. In 1849 Sarah Morris, the widow of wireworker Peter Morris, who had lived next door to the pipe factory, married the much younger pipemaker Thomas Boyde from Cumberland, who had presumably been working there. The census returns for 1851 and 1861 show that Thomas had become a master pipemaker at Bistre employing others, and so was presumably running the workshop. George Jones, an older pipemaker from Chester, was one of those working for him. The workshop appears to have closed at some point during the 1860s and the 1881 reference to pipemaker William Jones at Bistre may refer to drain pipe rather than tobacco pipe manufacture. See also Aston, Buckley, Ewloe, Hawarden, Llong and Mold for other pipemakers in this area.

BUCKLEY

Samuel Hughes (recorded as an earth pipemaker in Buckley in 1891)

Pipemaking was certainly taking place in the Buckley area, which was also an important potting centre, from the seventeenth century onwards. There is often ambiguity, however, in the documentary sources as to exactly where people were living/ working and many references to pipemakers occur in records of Hawarden parish, particularly for members of the Hayes family. The Hawarden parish registers, in turn, often give residence as individual settlements like Ewloe (especially for the early makers), a small settlement between Buckley and Hawarden, or Bistre. Wikipedia (https://en.wikipedia.org/ wiki/Buckley; accessed 13-8-18) says of Buckley that "urban district status was conferred on the town in 1898; at this time, the area comprised two parishes, Buckley (1874) and Bistre (1844). The urban district of Buckley was formed of Ewloe, Pentrobin and Bannel (which was formerly a part of the parish of Hawarden), Argoed, and Bistre (the oldest part of the town). ... Before then, it was divided between the parishes of Mold and Hawarden." So it is necessary to also look at the records for individual places such as Bistre, Ewloe and Hawarden for makers who may have previously been loosely regarded as coming from Buckley (e.g., Bentley, Davey and Harrison, 1980), which only came into existence as an urban district after all pipemaking had probably ended. The Buckley area was also one where extensive potteries as well as brick and tile works operated. Some of the references to 'pipemakers' could refer to drain or sanitary pipes rather than those for tobacco as, for example, the 1891 reference to Samuel Hughes given above. Likewise, the many members of the Lamb family who were 'earth pipemakers' in late nineteenth-century Buckley, and often lived in close proximity to other brickyard workers. See also Aston, Bistre, Ewloe, Hawarden, Llong and Mold for other pipemakers from this area.

CHIRK AREA

Matthew Wynne (recorded as a pipemaker in the Chirk Castle accounts, 1697)

The Chirk Castle estate is located in a rural area between Llangollen and Oswestry, about 10 miles SSW of Wrexham. The castle accounts for 24 July 1697 include the entry "Pd Matthew wynne the tobacco pipes maker for 6 grosse of pipes 0-12-0". Unfortunately, the entry does not say where Wynne was working, but the fact that his name was given without the need for a location suggests that he was well-known locally so that it needed no further clarification. Contemporary pipes stamped MW have been recorded from Buckley, Denbigh, Willaston (near Crewe) and Tai Penamnen in Snowdonia (see pages 114-5 above for details), which suggests a well-established and prolific business. This distribution pattern fits with a workshop based somewhere in north-east Wales but, at present, this pipemaker can only be identified as having been located somewhere in the Chirk area.

EWLOE

Abel Hayes (likely to have been pipemaking at Ewloe, c1720-c1750 and Liverpool c1750-1803)

John Hayes (likely to have been pipemaking at Ewloe, c1653-1708)

Thomas Hayes (c1676-1720; likely to have been pipemaking at Ewloe, c1697-1720)

Joseph Rogers (recorded as a pipemaker (drain?) at Ewloe in 1881)

Samuel Rogers (recorded as a pipemaker (drain?) at Ewloe in 1881)

Ewloe is a small settlement that lies less than a mile from the middle of Hawarden. It is significant in that the earliest known pipemakers from north-east Wales are specifically listed in the parish register entries as having lived there. John Hayes was working in Ewloe during the second half of the seventeenth century and was the first of at least seven generations of the family who are documented as pipemakers. It was his son Thomas (c1673-1720) whose large family (at least eleven children) started to spread out, with Abel moving to work in Liverpool, where he lived to be nearly 100. The family dominated the pipemaking trade in the Hawarden area until the middle of the nineteenth century, with another branch almost monopolising pipe production in Wrexham from c1810-70. Other branches spread out across the north-west of Britain, and beyond, with a significant manufactory in Liverpool from c1780-1800. The exact location of the original family workshop in Ewloe is not known, but Thomas Hayes made good quality pipes in a distinctive Broseley style there, many examples of which have been found at Brookhill, Buckley (Higgins 1983). See also Aston, Bistre, Buckley, Hawarden, Llong and Mold for other pipemakers from this area.

HAWARDEN

John Cokeyne/Cokayne (recorded as a pipemaker at Hawarden in 1841)

Samuel Eastwood (recorded as a pipemaker at Hawarden in 1840, at Bistre, Buckley, in 1841 and in Halifax 1851-1881) **Thomas Fox** (recorded as a pipemaker at Hawarden 1716-1732)

Elizabeth Hayes (recorded as a pipemaker at Hawarden from 1828-1835 and at Bistre, Buckley, in 1841)

Jeremiah Hayes (c1744-1820: probably worked as a pipemaker in Hawarden c1760-1820)

Jeremiah Hayes (c1783-1836: probably worked as a pipemaker in Hawarden c1800-1836)

Jeremiah Hayes (born c1792, son of Thomas: probably worked as a pipemaker in Hawarden before 1808 and recorded as a pipemaker in Middlesex 1841-1861)

Thomas Hayes (born c1702; likely to have been pipemaking in Hawarden, c1720-1749+)

Thomas Hayes (?c1722-1795, 'Ye Younger'; possibly pipemaking in Hawarden, c1740-1780 and in Liverpool c1780-95)

Thomas Hayes (1749-1780; possibly pipemaking in Hawarden, c1760-1775 and in Liverpool c1775-1800)

Thomas Hayes (c1770-1829; recorded pipemaking at Hawarden 1791-1803, at Chester in 1811 and at Wrexham 1812-

1829)

James Hickson (recorded as a pipemaker at Hawarden in 1803)

Philip Hullah (recorded as a pipemaker at Hawarden in 1841, at Newport in 1861 and in Sheffield from 1871-1891)

Joseph Monnax (recorded as a pipemaker at Hawarden in 1748)

Hawarden was the ecclesiastical parish that covered much of the Flintshire coalfield area, which attracted potters and pipemakers because of the availability of suitable clays and fuel for making and firing their wares. Places such as Ewloe had been exploiting coal and making pottery since the Medieval period the earliest pipemakers in north-east Wales are documented there from the later seventeenth century onwards. Although many of the pipemakers are likely to have actually worked in the smaller settlements around the parish, it is Hawarden that appears to have been given in many of the earlier documents and directories as their place of work. The situation is further confused by the known pipemakers having been lumped together under Buckley by previous writers (cf Bentley, Davey and Harrison 1980) when, in fact, most of their references actually name other individual settlements within the area that only later became the urban district of Buckley (Buckley having historically come under the parish of Hawarden). So far as possible, the makers in this list have been described under the location given in the original documents. While the makers in this section of the list are documented as having come from Hawarden, this does not necessarily mean that they worked in the settlement itself and it is likely that many of the workshops were actually in the surrounding settlements. The most significant family recorded as coming from 'Hawarden' is undoubtedly the Hayes'. The earliest members of this family are specifically listed as having lived in Ewloe, but it is not certain exactly where the later members worked. Family members named Thomas were working throughout the eighteenth century and members named Jeremiah probably from the 1760s through to the 1830s. The latter are of particular importance, since pipes with the stem stamp 'J.HAYES.HAWARDEN' are known, and the name appears in early trade directories, suggesting that this was one of the most significant manufactories in the area. Elizabeth Hayes, the daughter of Jeremiah (c1744-1820), may well have taken over her father's workshop on his death in 1820 and is documented as living in Bistre in the 1841 census, even though she is listed under Hawarden in trade directories of 1828-35. So, it seems probable that the workshop had always been there, with the 'postal address' simply being Hawarden. Unfortunately, the other documents and stem stamps for J. Hayes simply give 'Hawarden' and, since there were several makers of this name recorded there, it is only possible to date these marks to the broad period c1770-1840. See also Aston, Bistre, Buckley, Ewloe, Llong and Mold for other pipemakers from this area.

HOLYWELL

James Rice Bolam (recorded as a pipemaker at Stepney in 1841, Ipswich in 1843, Holywell in 1844, probably at Liverpool 1845, probably at Oxford 1848 and at St Pancras in 1851)

William Evan Bolam (recorded as a pipemaker at Holywell in 1844)

David Davies (recorded as a pipemaker at Holywell in 1871, age 15)

John Davies (recorded as a pipemaker in Chester 1841; Leicester *c*1849-1851; Nottingham *c*1854 and Holywell *c*1856-1869)

John William Davies (recorded as a pipemaker in Holywell *c*1877-1895)

Joseph Davies (recorded as a pipemaker in Holywell 1881)

Mary Ann Davies (recorded as a pipemaker in Leicester in 1851 and Holywell 1871-1901)

Samuel Davies (recorded as a pipemaker in Holywell 1871-1901)

Thomas Davies (recorded as a pipemaker in Holywell 1881-1901)

William Davies (recorded as a pipemaker in Chester 1841-1851, Liverpool 1856, Chester 1861-1871 and Holywell 1881-1899)

Joseph Hughes (recorded as a pipemaker in Holywell in 1861 and possibly at Wymondham, Norfolk, in 1881)

Edward Sharlock (recorded as a pipemaker in Holywell in 1868)

James Tarrett (recorded as a pipemaker in Holywell in 1861)

There are two main pipemaking businesses recorded in Holywell, the earliest being that in Chapel Street, which was listed in a directory of 1844 as being run by James and William Bolam. They were brothers, originally from London, but their enterprise must have been very short lived, since James (*q.v.*) spent most of his life as a journeyman: he was in Ipswich when he married in 1843 and probably in Liverpool by about 1846, when a son was born. So their attempt to set up a business in Holywell can only have lasted for a year or two at most. The second business was established in Whitford Street by the Davies family in around 1856. John Davies came from a Chester pipemaking family but had worked in Leicester and Nottingham, probably as a journeyman, before establishing the business in Holywell. Other pipemakers appear in Holywell at around this time, probably working as journeymen for Davies at his workshop. John died in 1869 but the business was carried on by his widow, Mary Ann Davies, with the help of at least five of their sons and probably also from William Davies, John's brother, who moved from Chester to work in Holywell from at least 1881 until his death in 1899. Mary Ann probably died in 1904 and this may well have led to the end of pipemaking in Holywell at around this time, with her son Samuel, 'formerly a clay pipe maker' being listed in the Holywell Union Workhouse in 1911.

LLONG

Samuel Chamberlain (recorded as a pipemaker in Digbeth (Birmingham) in 1845; Llong (Flintshire) in 1847 and Warwick from 1851-61)

Llong is a tiny hamlet about 2 miles south-west of Buckley and a similar distance south-east of Mold. Samuel Chamberlain is recorded there in 1847 but must have only been in the area briefly, since he was married in Birmingham in 1845 and was working in Warwick by 1851. He would only have been around 25 at the time he was in Llong and may well have been working as a journeyman for one of the local pipe workshops.

MOLD

Michael Clavin (recorded as a pipemaker in Mold in 1851)

Despite developing into the administrative centre for Flintshire during the Post-Medieval period, there is no good evidence for pipe production having taken place in Mold itself. The settlement lay on the western edge of the industrial area centred on the clay and coal deposits around Buckley/Hawarden, where there was extensive potting, brick making and pipemaking activity. Most of the pipes used in Mold are likely to have been obtained there and the only reference to a pipemaker in Mold itself dates from 1851 when Michael Clavin is recorded. He was an Irish hawker / rag trader / pipemaker who probably worked intermittently at pipemaking for others, as and when he could find work. See also Aston, Bistre, Buckley, Ewloe, Hawarden and Llong for other pipemakers from this area.

PENYCAE – See Ruabon

RHOSTYLLEN

Henry Walter Stone (recorded as a pipemaker at Maidstone in 1851, Rhostyllen in 1861, Wrexham in 1867 and Birmingham from 1871-1876)

Henry Walter Stone is recorded as a master pipemaker at Rhostyllen in the 1861 census, but he may have actually been working in nearby Wrexham, which is only about two miles to the north-east. He was certainly working in Wrexham in 1867.

RUABON

John E. Blunt (recorded as a clay tobacco pipemaker at Ruabon in 1881)

Thomas Hughes (recorded pipemaking at Chester 1883; Wrexham 1886-1903 and at Ruabon from a stem stamp of c1885-1900)

Thomas David Hughes (recorded as a pipemaker (sanitary?) at Penycae, 1881-1891)

Edward Parry (recorded as a pipemaker (sanitary?) at Ruabon (Rhosllanerchrugog) in 1881)

Ruabon was an important production centre for bricks, tiles, etc., during the second half of the nineteenth century but no pipemakers have been found in a search of trade directories covering the area for the years 1835, 1840, 1844, 1850, 1856, 1874, 1876, 1883, 1886, 1889, 1892, 1895, 1899 or 1913. The references to Thomas David Hughes are more likely to relate to a sanitary pipemaker rather than a tobacco pipemaker, but a pipe stem stamped T? HUGHES & Co / RUABON shows that some attempt at production was made in the area, probably by the entrepreneurial Thomas Hughes (no relation to Thomas David Hughes) whose pipemaking business is recorded in nearby Wrexham from 1886-1903. John Blunt and Edward Parry are listed in the census returns as tobacco pipemakers, but it is not clear whether this was in error by the enumerator or whether they were actually making tobacco pipes, perhaps for 'Thomas Hughes & Co'. The Ruabon list includes names from other small surrounding villages such as Penycae and Rhosllanerchrugog.

WREXHAM

Joseph Atkinson (recorded as a pipemaker at Wrexham in 1876)

Samuel Bayly (recorded as a pipemaker at Chester in 1691 and at Wrexham in 1699)

William Bostock (recorded as a pipemaker at Wrexham in 1881)

John Cope (recorded as a pipemaker at Wrexham 1837-1871)

Edward Davies (recorded as a pipemaker at Wrexham in 1851)

Abel Haves (recorded working at Wrexham 1825-1871)

Anne Hayes (probably working at Wrexham *c*1812-1845)

Edward Hayes (perhaps a pipemaker at Wrexham prior to his death in 1731/2)

Henry Hayes (recorded as a pipemaker at Wrexham 1867-1868 and at Gillingham, Kent, in 1871)

Jeremiah Hayes (?born about 1790 (wife Elizabeth): recorded pipemaking at Wrexham 1819-1842)

Jeremiah Hayes (?born about 1800 (wife Sarah): recorded pipemaking at Wrexham 1830)

John Hayes (recorded pipemaking at Wrexham 1848-1869)

Thomas Hayes (c1770-1829; recorded pipemaking at Hawarden 1791-1803, at Chester in 1811 and at Wrexham 1812-

1829)

Thomas Hayes (1814-1875: recorded pipemaking at Wrexham 1835-1871)

Charles Edward Hickman (probably a pipemaker at Wrexham from *c*1899-1903)

Patrick Higgins (recorded as an earth pipemaker (sanitary?) at Wrexham 1891)

Henry Salisbury Hudson (recorded pipemaking at Wrexham in 1867)

Thomas Hughes (recorded pipemaking at Chester 1883; Wrexham 1886-1903 and at Ruabon from a stem stamp of c1885-1900)

Richard Prince (recorded as a pipemaker at Wrexham +1685-1715+)

Robert (recorded as a pipemaker at Wrexham +1685 (ob))

William Rogers (recorded as a pipemaker at Wrexham +1874-1876+)

Mary Russell (recorded as a pipemaker at Wrexham in 1721 (ob))

Richard Russell (recorded as a pipemaker at Wrexham +1684-1707 (ob))

William Russell I and II (recorded as a pipemakers at Wem, Shropshire, in 1692 and at Wrexham +1695-1713+)

William Smith (recorded as a pipemaker at Great Yarmouth 1851-1861, Brighton *c*1865, Chester 1871, Stockport *c*1874 and at Wrexham *c*1877-1899)

Henry Walter Stone (recorded as a pipemaker at Maidstone in 1851, Rhostyllen in 1861, Wrexham in 1867 and Birmingham from 1871-1876)

John Ward (recorded as a pipemaker in Oswestry 1708-1710, at Wrexham in 1720 and at Oswestry 1733-1754 (ob))

Edward Williams (recorded as a pipemaker at Oswestry 1841-c1876 and Wrexham c1876-1891+)

Wrexham appears to have been one of the most important pipemaking centres in north-east Wales. The earlier records have not been systematically searched but, from a preliminary study, at least eight makers are already known to have worked in the town between 1684 and 1721. One of the earliest makers, 'Robert', died in 1685 and so had presumably been working for some years before this. Likewise, references to Richard Prince go back to 1679, even though it is 1685 before his occupation is first given. These references suggest that pipemakers were working in the town from at least the 1670s onwards. Three of the early makers had links with the Loppington/Wem area of north Shropshire, which seems to have been an important pipemaking area at this period. One of them (John Ward) came from a pipemaking family that had first moved from Loppington (a small village about 3 miles west of Wem) to Oswestry, showing how techniques and ideas would have moved from one place to another. Mary Russell came from Wem but later became a pipemaker in her own right at Wrexham, where she made good quality pipes in a Broseley style with her full name stamped on them after the death of her husband, William Russell, who had also worked in both Wem and Wrexham. The Russell family appear to have been the principal pipemakers in the town during the late seventeenth and early eighteenth centuries (Mary died in 1721). It is also possible that the Hayes family started pipemaking in Wrexham in the early eighteenth century (cf Edward Hayes), but this remains to be proven, and there are no eighteenth-century pipemakers recorded in at Wrexham following Mary's death in 1721 (although John Ward could have continued to work there until as late as 1733).

There was, however, a significant pipemaking presence in the town during the nineteenth century. Although not all of the local trade directories include pipemakers, there are regular references to them dating from between 1818 and 1903, and this research has shown from other sources that there were various pipemakers present in the town throughout this period. It is not known whether pipemaking had continued in the town throughout the eighteenth century but, by 1812, Thomas Hayes from Hawarden was working in Wrexham and various members of his extended family appear to have moved with him. The Hayes family had been working as pipemakers in the Hawarden area since the later seventeenth century and they went on to dominate the pipemaking trade in Wrexham until the early 1870s. Thomas Hayes (c1770-1829) worked in Pen-y-bryn and this remained the focus of pipemaking activity in the town while the family were in Wrexham, with his son, also called Thomas (c1814-1875) apparently taking over after his parents died. The hiatus created when the Hayes family stopped pipemaking in the town was initially filled by William Rogers, who is listed as a pipemaker in Hope Street in directories of 1874 and 1876. Rogers, however, was also a shoemaker and tobacconist and his involvement with pipemaking appears to have been somewhat peripheral and quite short lived. William Smith is then documented in the town from about 1877 until at least 1892. Originally born in Norwich, Smith had moved about England, presumably as a journeyman pipemaker, before settling in Wrexham and setting up his own business. He is listed in trade directories from 1886-1892 but changed address frequently, suggesting he was not very well established. Edward Williams, a pipemaker who had worked in Oswestry, lived and moved with his family and was presumably working for Smith. A second pipemaking business run by Thomas Hughes is also recorded in Wrexham during this period. Hughes had been born in Sealand, Flintshire, in about 1862 and is recorded briefly as a pipemaker in Chester (1883) before marrying in Wrexham in 1885. He is recorded as having built his own kilns and his business appears in local trade directories at 43 Wrexham Fechan from 1886 until 1903, even thought Hughes himself died in 1897 (the business being carried on by his widow and/or her new husband Charles Edward Hickman). Thomas appears to have been much more organised than Smith, styling himself Thomas Hughes & Co and with his premises being referred to as a 'factory' with 'kilns' (plural). He was also much more entrepreneurial and was also an importer and dealer in glass and earthenware. A pipe stem stamped 'T? HUGHES & Co / RUABON' is known and so Hughes may also have had business interests there as well. The 1903 trade directory entry for T. Hughes & Co is the last known reference to pipemaking in Wrexham.

Section B - Individual Biographies

The following section lists details for all the known pipemakers from north-east Wales in a single sequence, arranged alphabetically by surname and then Christian name. Other makers working at the same place can be identified by referencing the topographical summaries given above (Section A).

Joseph Atkinson (recorded as a pipemaker in Wrexham in 1876)

The Wrexham Guardian for Saturday 24 June 1876 records a case in the Borough Petty Sessions where Edward Rowland, landlord of the Sun Inn in Abbot Street, Wrexham, was fined for having permitted drunkenness in his public house. Joseph Atkinson, pipemaker, was one of the witnesses who came to say that he was not drunk on the day, nor did he see anyone else drunk, but Rowland was found guilty and fined £5 plus costs and his license was endorsed. A second 1876 reference to this pipemaker occurs in the Wrexham and Denbighshire Advertiser... for 4 November regarding an inquest into his wife's death during labour.

An inquest was held at the Horn's Inn, yesterday ... on the body of Sarah Elizabeth Atkinson, wife of Joseph Atkinson, 8 Brewery Place, who had died on the previous day. Deceased was a fine strong woman apparently, and had died in labour, and a considerable feeling of surprise had been felt that death should have occurred under the circumstances. ... Joseph Atkinson ... said he was a pipe maker, and when in full work earned 16s per week. Trade was slack at present, and he worked little more than half time. He had three children, and could not afford to secure the services of a medical man. ... The enquiry was then adjourned to Tuesday next.

Sarah's death was registered at Wrexham in the last quarter of 1876, age 37 (1839). Another Sarah Elizabeth Atkinson, age 8 (1866), perhaps her daughter, had been buried at Wrexham in the first quarter of 1874. Joseph possibly died a couple of years later, since the Wrexham parish register records the burial of a Joseph Atkinson from the workhouse (no occupation given), age 57 (1821), on 28 December 1878. Joseph has not been traced in any earlier records and was probably a journeyman pipemaker.

Samuel Bayly (recorded as a pipemaker at Chester in 1691 and at Wrexham in 1699)

A Samuel Beley, "pip-maker", baptised a son, also Samuel, at St Oswald's, Chester, on 22 October 1691. This is presumably the same Samuel Bayly (Bailey) who is recorded as a Wrexham pipemaker in a 'Bond in 50' in the Denbighshire Quarter Sessions for 12 January 1698/9 (Flintshire Record Office D/E/1279). The catalogue entry for the bond lists the parties as follows, "(i) Samuel Bayly of Wrexham, co. Denbigh, pipemaker, John Nicholas the younger of the same place, corvizer and James Lea of the same place, currier. (ii) Richard Jones, Jonathan Fabian, William Powell and Peter Foulkes, churchwardens of Wrexham. To indemnify (ii) against all charges for the wife and children of the said Samuel Bayly." No other references to Samuel Bayly/Beley/Bailey have been located in the Wrexham or Chester parish registers around this period, but James and Robert Bailey, perhaps descendants, are both listed as Chester pipemakers in the mid-eighteenth century (Rutter and Davey 1980, 229-230).

John E. Blunt (recorded as a clay tobacco pipemaker at Ruabon in 1881)

The 1881 census for 37 Mount Pleasant, Ruabon comprises the family of William Blunt, 42, coal miner, and his family. This includes unmarried son John E. Blunt, 18 (1863), born Brymbo, who is recorded as a clay pipemaker. To this description has been added 'Tob' that, if reliable, indicates he was a tobacco pipe rather than a sanitary pipemaker. However, Ruabon had an important brick and tile industry and some of the later annotations to the census appear to have confused drain pipe making with tobacco pipe making.

James Rice Bolam (recorded as a pipemaker at Stepney in 1841, Ipswich in 1843, Holywell in 1844, probably at Liverpool 1845, probably at Oxford 1848 and at St Pancras in 1851)

- 1816 Baptised on 15 September at St Mary, Lambeth, son of James Bolan, carver and gilder, and Ann.
- 1841 Recorded as a journeyman pipemaker in Redmans Row, Stepney, age 25 (1816).
- 1843 Given as a pipemaker when he married Ann Kellard in Ipswich on 27 August.
- 1844 James and William Bolam listed as pipemakers in Chapel Street, Holywell (Slater's directory, p33).
- 1845 Probably in Liverpool (birth of son George registered there in July-Sept quarter).
- 1848 Probably in Oxford (daughter Ann born there, aged 3 in the 1851 census).
- 1850 Probably in St Pancras, London (son James born there, aged 7 months in the 1851 census).
- 1851 Listed as a tobacco pipemaker at 38 Little Clarendon Street, St Pancras, age 33 (1818).
- 1858 Buried at Holy Trinity, Mile End Old Town, Stepney on 21 July, age 42 (1816). Address at the time given as 9 Elizabeth Ann Place.

James was born in Lambeth in 1816, one of at least seven children. His parents were James Nevison Coulson Bolam, carver and gilder, and Ann, whose maiden name was Rice (hence his middle name). He did not follow in his father's trade and, by 1841 (age 25) he was working as a journeyman pipemaker for John Hopkins in Stepney (he was living with the

Hopkins family, along with Benjamin Johnson, a nineteen-year-old apprentice pipemaker). Two years later (1843) he was given as a pipemaker in Ipswich when he married Ann Kellard, whose father was a painter and glazier (and his father was then given as a picture frame maker). By 1844 he had moved to Holywell, where he established his own pipemaking business with his younger brother William, being listed as James and William Bolam in Slater's directory of that year. The enterprise clearly did not last, since there is no further reference to the couple at Holywell, but James had children who were born in Liverpool in about 1846, in Oxford about 1848 and in St Pancras in 1850. This suggests he was working as a journeyman again before returning to London. At the time of the 1851 census he was one of four families sharing a property at 38 Little Clarendon Street in St Pancras. One of the families was headed by a widow from Devon but the other three were all pipemaking families, as follows:

James Ransom	Head	Mar	25	Tobacco Pipe Maker	Shoreditch
Rebecca Ransom	Wife	Mar	25	Laundress	Whitechapel
James W Ransom			2		St Pancras
Robert Ransom			5m		St Pancras
James Bolam	Head	Mar	33	Tobacco Pipe Maker	Lambeth
Ann Bolam	Wife	Mar	26	Pipe Trimmer	Bristol
George Bolam	son		5	Scholar	Liverpool
Ann Bolam	dau		3	Scholar	Oxford
James Bolam	son		7m		St Pancras
I C	111	Μ	22	T-1 Din- M-1	D.,; -1,4
James Green	Head	Mar	22	Tobacco Pipe Maker	Brighton
Mary Ann Green	Wife	Mar	19	Tobacco Pipe Trimmer	Shepherd Bush

James Bolam was the oldest in these three pipemaking families and so had perhaps established his own business once again. If so, the business can only have lasted a few years since James died in 1858, aged 42. A few weeks after James's death, his widow baptised three of their children (Ann, William Ralph and Mary Jane) on 19 September at the same church (Holy Trinity, Mile End Old Town, Stepney). Once again, their address is given as 9 Elizabeth Ann Place. By 1861 his widow had moved to 67 Edward Street, Stepney, and was working as a char woman with the three children (then 12, 5 and 2 respectively). Ann finally remarried on 24 November 1879 at St Botolph, Bishopsgate, to Henry Barker, a tin plate worker.

William Evan Bolam (recorded as a pipemaker at Holywell in 1844)

1821 - James Evan Bolam, son of James Nevison Coulson Bolam, carver and gilder, and his wife Ann, was baptised at St Mary, Lambeth, on 10 January.

1844 - James and William Bolam were listed as pipemakers in Chapel Street, Holywell (Slater's directory, p33).

William's father married Ann Rice at St George the Martyr, Southwark, on 25 November 1811, with one of the witnesses being Evan Rice, presumably Ann's father. This accounts for William's middle name of Evan. In 1841 he is possibly the William Bolam, 21 (1820) working as a male servant in St George, Hanover Square. Likewise, he is possibly the William Bolam who married Sarah Kelly at St Pancras on 11 October 1841. By 1844 he had certainly moved to Holywell, where he worked in a short-lived pipemaking business with his brother James (q.v.). By 1845, however, James appears to have moved on to Liverpool, the business having presumably failed. No further trace of William has been found.

William Bostock (recorded as a pipemaker in Wrexham in 1881)

One of the lodgers listed in the 1881 census at 23 and 24 Brook Street, Wrexham (a lodging house), was William Bostock. He was described as an unmarried tobacco pipemaker, 30 (1851), born in Manchester. He has not been traced in any other records and was probably a journeyman pipemaker who had found work in Wrexham for a period.

Thomas Boyde (recorded as a pipemaker at Bistre, Buckley, 1851-1861)

1849 - Thomas Boyde married Sarah Morris at Mold on 14 May. Both described as 'of this parish'.

1851 - The census for Nant Mawr, Bistre, includes the following household:

	Thomas Boyde	Head	Mar	23	Pipe Maker Master emp 2 mer	n Carlisle
	Sarah Boyde	Wife	Mar.	53		Gresford
	Mary Morris	Step Dau		11		Mold
	George Jones	Ser. Widwr		62	Pipe Maker Journeyman	Chester
	James Wilson	Servant	U	25	Pipe Maker Journeyman	Whitehaven
1861	- The census for Bistre, N	Mold, includes	the follow	ing hou	isehold:	
	Thomas Boyd	Head	Mar	33	Tobacco Pipe Maker	Gailsson?
	Sarah Boyd	Wife	Mar	65		Gresford
	Peter Morris	G Son	Un	16	Errand boy	Mold

George Jones Lodger Widr 74 Tobacco Pipe Maker Chester

[Gailsson may well be Glasson, about 8 miles NW of Carlisle]

1871 - The census for Buckley Road, Bistre, Mold, includes the following household:

Thomas Boydell Cumberland Head Mar 44 Labourer Sarah Boydell Wife Mar 76 Gresford Peter Morris Adopted Son Unm 20 Collier Mold

[Peter Morris was probably the illegitimate son of Maria Morris, Sarah's daughter, baptised at Bistre on 4 May 1850]

- 1880 Death of Thomas Boyd registered at Holywell, Q1 (Jan-Mar), 55 (1825)
- 1880 Death of Sarah Boyd registered at Holywell, Q3 (Jul-Sept), 84 (1796)

Thomas Boyde (or Boyd / Boydell) appears to have been born in around 1828 in Glasson, near Carlisle in Cumberland. By 1849 he had moved to North Wales and, aged about 21, married the recently widowed Sarah Morris, who was more than 30 years his senior, at Mold. Sarah had been married to Peter Morris, wire worker (q.v.), and lived next door to a pipemaking establishment in Bistre, which Peter may have owned. The marriage almost certainly allowed Thomas to take over this business, where he is described as a master pipemaker employing 2 men by 1851. The business was still running in 1861, but had closed by 1871, when Thomas was described as a labourer. They both appear to have died during 1880.

Samuel Chamberlain (recorded as a pipemaker in Digbeth (Birmingham) in 1845; Llong (Flintshire) in 1847 and Warwick from 1851-61)

- 1822 Samuel, son of Samuel Chamberlain, pipemaker, Walldike (now Barrack Street) and Sarah his wife, was baptised at St Mary's, Warwick, on 24 February.
- 1845 Samuel Chamberlain, Bachelor, pipemaker of Digbeth, son of Samuel Chamberlain, pipemaker, was married after banns to Mary Ann Hodgkinson of Digbeth, spinster, daughter of Samuel Hodgkinson, butcher, at St Martin's, Birmingham, on 20 October. Both were given as being of full age and both signed their names. The witnesses were Edwin Gardner Burns and Elizabeth Burne.
- 1847 Sarah Anne, daughter of Samuel and Mary Anne Chamberlain of Llong, pipemaker, was baptised at the Chapelry of Pontblyddyn (about 3 miles south of Buckley) on 30 December.
- 1851 Samuel Chamberlain, 29, tobacco pipemaker, born Warwick, was living with his wife, Mary Ann, ?21, born ?Flint, North Wales, and their daughter Sarah, 3, in Crompton Street, Warwick.
- 1861 Samuel Chamberlain, 39, tobacco pipemaker master employing 2 men, 1 woman and 1 boy, born Warwick, was living with his wife, Mary Ann, 37, born Flint, Flintshire, and four children (Hannah 9, Henry 8, Elizabeth 6, Mary 5, all born in Warwick) in Market Street, Warwick. Also living with them was Mary Ann's unmarried sister Elizabeth Hodgkinson, 29, born Flint, Flintshire, no occupation.
- 1868 A Samuel Chamberlain, no occupation given, voted in the Warwick election (poll list).
- 1871 Samuel Chamberlain, 49, Landowner, born Warwick, was living with his wife, Mary Ann, 46, born Flint, Flintshire, and two children (Elizabeth 16 and Mary 15, both born in Warwick) in Cobby Lodge, Amroth, Pembrokeshire. They also had a domestic servant, Sarah Phillips, 15, born Ludchurch, Pembrokeshire.
- 1881 Samuel Chamberlain, 59, Innkeeper, born Warwick, was living with his wife, Mary A., 56, born Flint, and two children (Elizabeth 26, born Warwick, and Mary 25, born Harbury, Warwickshire) in the Stoneleigh Arms, Leamington, Warwickshire. They also had a domestic servant, Elizabeth Rose, 23, born Harbury, Warwickshire.
- 1884 The death of a Samuel Chamberlain was registered at Warwick in the first quarter, age 61 (1823).

Samuel Chamberlain was baptised in Warwick in 1822. His father, also named Samuel, was a pipemaker in the town and almost certainly the son of the Birmingham pipemaker Joseph Chamberlain (c1754-1815). Samuel (senior) died in 1828 and it is possible that his son Samuel subsequently returned to learn the trade with other members of the Chamberlain family in Birmingham, since he was given as a pipemaker from Digbeth when he married at St Martin's, Birmingham, in 1845 (he has not been traced in the 1841 census). His wife had been born in Flint and they had moved to Llong, near Buckley, by 1847, when a daughter was baptised. Samuel may well have initially been working for one of the local pipe workshops as a journeyman before moving back to Warwick, where he is listed as a pipemaker in the 1851 and 1861 census returns. He was still in Warwick in 1868 (poll list) but was listed as a landowner in Pembrokeshire in 1871 and an innkeeper in Leamington in 1881. He died in 1884 and so is only likely to have worked in Flintshire for a brief period around 1847. It seems likely that he gave up pipemaking around 1870, when he moved to Pembrokeshire.

Michael Clavin (recorded as a pipemaker in Mold in 1851)

- 1851 The census for Milford Street, Mold, includes Michael Clavin, 48, married and a pipemaker born in Gibberalter (*sic*). His wife was not with him. He was living with Margaret Grant, unmarried, 48, dealer in marine stores from Ireland. She had two of her own children with her and three other male visitors, suggesting that she was running a boarding house.
- 1861 The census for 78 Milford Street, Mold (a licensed lodging house kept by Patrick Garaghty, 61, marine store dealer from Ireland and his wife Margaret, 56) includes lodger Michael Clivan (*sic*), dealer in rags, 59, born Ireland. He

was listed as married, but his wife was not with him. Another of the lodgers was Patrick Tury, 36, from Ireland, who was described as a 'piper'. Eleven of the 13 lodgers were from Ireland, as were the two proprietors.

1871 - The census for 1 Fforddfain, Mold, lists:

Michael Clavin	Head	Mar	70	Hawker	Westmeath, Ireland
Mary Clavin	Wife	Mar	65		Castlebar, Mayo
Charles Davaney	Lodger	Um	12	Labourer	Flintshire, Mold

1874 - The death of Michael Clavin, 74 (1807), was registered in Q4 (Oct-Dec) at Holywell.

Michael Clavin was born around 1803-1807 in Ireland and is variously described as a pipemaker / hawker / rag dealer based in Mold. In 1851 and 1861 he was living in a predominantly Irish lodging house without his wife, but he was in his own accommodation with her in 1871. There is just one reference, in 1851, to him as a pipemaker and he would almost certainly have just been working as a journeyman.

John Cokeyne/Cokayne (recorded as a pipemaker at Hawarden in 1841)

- 1841 Banns of marriage for John Cokeyne of Ewloe and Mary Hayes of Hawarden were read on 31 January, 7 February and 14 February and they married at Hawarden on 22 February 1841. John was the son of John Cokeyne, butcher, and Mary the daughter of Jeremiah Hayes, pipemaker. Both signed with good signatures. George Bevan? and William Bennett witnesses.
- 1841 The census for Hawarden includes the following household:

Jeremiah Hayes	50	Pipe Maker	Born in the county
John Cokayne	30	Pipe Maker	Not born in the county
Mary Cokayne	20		Born in the county
Phillip Hullah	20	Pipe Maker	Not born in the county

John Cokeyne/Cokayne was born around 1811 outside of Flintshire and is likely to have been a journeyman pipemaker working for Jeremiah Hayes, whose daughter Mary (born 5 April 1816) he married in 1841. He and his new wife were living with Jeremiah in the 1841 census but have not been traced subsequently.

John Cope (recorded as a pipemaker in Wrexham 1837-1871)

- 1810 John, son of John Cope, labourer, and his wife Marsley, was born on 22 July and baptised on 5 August at St John's, Liverpool.
- 1837 John Coupe, bachelor and Martha Harrison, singlewoman, both of Gresford were married at Gresford by Banns on 20 June 1837. John signed and Martha made her mark. Witnesses were Jeremiah Hayes and Jane Whisley, both of whom made their marks.
- 1838 Sarah, daughter of John Cope, pipemaker, Hope Street, Wrexham and his wife Martha was baptised on 24 August.
- 1841 The census for Hope Street, Wrexham Regis, lists:

John Cope	36	Pipe Maker	Not born in the county
Martha Cope	25		Born in the county
Sarah Cope	3		Born in the county
Mary Cope	1		Born in the county

1851 - The census for Hope Street, Wrexham Regis, lists:

Martha Cope	Head	Mar 45	Washerwoman	Wrexham
Sarah Cope	Dau	11	Scholar	Wrexham
Mary Cope	Dau	9	Scholar	Wrexham
John Cope	Son	5	Scholar	Wrexham

1871 - The census for 39 Beast Market, Wrexham Regis, lists:

The census for 39 Beast Market, Wienham Regis, fists.					
John Cope	Head	Mar	62	Pipe Maker	Liverpool
Martha Cope	Wife	Mar	67		Wrexham
Elizabeth	Grandchild		8	Scholar	Wrexham

- 1873 The death of a Martha Cope was registered at Wrexham in Q4 (Oct-Dec), age 70 (1803).
- 1874 John Cope died at the workhouse on 20 December (Wrexham Guardian) and was buried in Wrexham cemetery on 28 December, age 65 (1809).

John Cope was born in Liverpool in 1810, when his father was recorded as a labourer. However, at his parents wedding in 1804 (John Cope and Marsley Walker married at St John's, Liverpool, on 7 October), his father had been described as a potter, so that son John was probably brought up with links to the clay industries. Nothing is known of his early career but he must have moved to the Wrexham area by 1837, when he married Martha Harrison at Gresford (just to the north of Wrexham). One of the witnesses at the wedding was Jeremiah Hayes, who is likely to have been the Wrexham pipemaker of that name and with whom John was probably working. John is specifically described as a pipemaker in 1838 when his daughter Sarah was baptised. Likewise, he is listed as a pipemaker in subsequent references that have been found up to 1871, suggesting that he worked in the town for the remainder of his life (although he was away from home in 1851 and

the family has not been located in the 1861 census). He died at Wrexham workhouse in 1874, aged 65. He does not appear in any of the trade directories and so it is likely that he only ever worked as a journeyman for others.

David Davies (recorded as a pipemaker at Holywell 1871)

David Davies was the son of pipemakers John and Mary Ann Davies (q.v.) and was born in Holywell in about 1856 (from later census data). He was living with the family in 1861 as a scholar (age 5) and as a pipemaker in 1871 (age 15), when he would have been helping with the family business in Whitford Street. He has not been traced in later records.

Edward Davies (recorded as a pipemaker in Wrexham in 1851)

The 1851 census for Bridge Street, Wrexham, includes Hannah Williams, 40, an agricultural labourer's wife, and her family of five children. Visiting with them was Edward Davies, unmarried, 36 (1815), pipemaker, born Liverpool.

John Davies (recorded as a pipemaker in Chester 1841; Leicester c1849-1851; Nottingham c1854 and Holywell c1856-1869)

- 1819 Baptised on 3 October at St John's Chester, son of the pipemaker Samuel Davies and his wife, Maria.
- 1841 Recorded as a 20-year-old journeyman pipemaker living with his parents and siblings in Love Street, Chester.
- c1849-c1851 Living in Leicester (approximate birth years/places for children John and Samuel in later census returns).
- 1851 Listed in Sanderson's Yard, All Saints, Leicester, where he was given as the head of a household, 29 (1822), pipemaker, born Chester. Living with him was an unmarried visitor Mary Smith, 26 (1825), pipe trimmer, born Seaford, Sussex, and their 7-month-old son Samuel Smith, born in Leicester. The couple later married.
- c1854 Living in Nottinghamshire (approximate birth year/place for daughter Louisa in later census returns).
- 1856 Listed as a pipemaker in Whitford Street, Holywell (Slater's directory, p45).
- 1868 Listed as a pipemaker in Whitford Street (Slater's directory, p62).
- 1869 A note in *The Wrexham Advertiser* for Saturday 23 October (Issue 873, p4) notes the death on the 16th inst., aged 50 years, of Mr J. Davies, pipemaker, Holywell.

John Davies came from a well-established Chester pipemaking family and presumably learnt the trade from his father, Samuel, who worked in Love Street. He was still living at home in 1841, when he was listed as a journeyman, suggesting that he was, by then, fully qualified. Over the next 20 years he seems likely to have been an itinerant journeyman, with his children being born in Leicester and Nottingham. By 1856 he had moved to Holywell, where he must have established his own business in Whitford Street, being listed as a pipemaker in Slater's directory of that year. He was still listed in the 1868 Slater's directory but died the following year, aged 50. His widow Mary Ann (q.v.) carried on the business, being listed as 'Mrs Davies' in subsequent trade directories. The couple has at least eight children, with most of their boys also recorded working as pipemakers in Holywell (i.e., John William, Samuel, David, Thomas and Joseph).

John William Davies (recorded as a pipemaker in Holywell c1877-1895)

- c1848 Born in Leicester (date from later census returns).
- 1861 Living with his family in Mount Zion, Whitford Street, Holywell, where his father (also John) was a pipemaker. He was given as 13, a scholar, born in Leicester.
- 1880 Listed in Whitford Street as a tobacco pipemaker (Slater's Directory, p100). A separate entry on the same page lists a John Davies as a wheelwright in the same street, probably the same person (*cf* 1895 entry below).
- 1881 Living in Swan Court, High Street, Holywell, 32 (1849), clay pipemaker (earthenware) born in Holywell. He was married to Mary Ann, 32, no listed occupation, also born in Holywell. With them were four children, the eldest (also John William) was 5 and born in Leicester (*c*1876). The other three were all born in Holywell (Joseph, 4; Louisa, 2; Mary Anne, 1 month), showing that the family had moved to the town in about 1877.
- 1883 Listed as John Davies, tobacco pipemaker, Whitford Street, Holywell (Slater's directory, p120).
- 1885 The 'Births' section of the *Flintshire Observer Mining Journal and General Advertiser*... for 15 October notes, "9th inst., the wife of Mr. John Davies, pipemaker, New-road, Holywell, of a daughter." (National Library of Wales, Welsh Newspapers Online).
- 1891 Listed in Whitford Street, Holywell, 42, tobacco pipemaker and political agent, born Leinster (*sic*; should be Leicester). His wife, Mary A. (43), and six children were all given as being born in Holywell. The children were John W. (15, clay boiler at paper mills); Joseph (14; Errand Boy, Post); Mary J. (10; scholar); Elizabeth (7, scholar); Esther L. (5; scholar) and George (1).
- 1895 Listed as John Davies, tobacco pipemaker and wheelwright, Whitford Street, Holywell (Slater's directory, p215).
- 1899 Listed as John Davis (sic), wheelwright, Whitford Street, Holywell (Bennett's directory, p62).
- 1901 Listed at 33 Whitford Street, Holywell, 52, surveyor to urban district council. Living with his wife and two of his children, none of whom were pipemakers.
- 1911 Listed at 33 Whitford Street, Holywell, 62, market inspector and hall keeper, living with his wife and six other members of his extended family, none of whom were pipemakers.
- 1922 Probable death; a John W. Davies of Holywell, 74 (1848) registered in the third quarter (Jul-Sept) at Holywell.

John William Davies was the eldest illegitimate son of pipemakers John Davies and Mary Ann Smith (who later married). He was born in Leicester in about 1848 but had moved to Holywell with his parents by about 1856, when he would have been about 8. He may, however, have retained connections in Leicester, since the 1881 census gives his eldest son as having been born there c1876, although he was back in Holywell from c1877, where all his other children were born. He appears in a Holywell trade directory as a pipemaker in his own right in 1883, presumably running the family workshop on behalf of his mother Mary Ann (widowed in 1869). Despite this, he soon seems to have been involved in various other activities as well, being recorded as a wheelwright at various points from 1880-1899, a political agent in 1891, and as working for the council in 1901 and 1911. His mother carried on the pipemaking business, reappearing under her own name in the 1899 directory and 1901 census, when she was in her 70s. So, John grew up in a pipemaking family and appears to have followed that trade initially but his involvement with pipemaking appears to have been part time from the 1880s onwards and to have finished by the end of the 1890s.

Joseph Davies (recorded as a pipemaker at Holywell 1881)

Joseph Davies was the son of pipemakers John and Mary Ann Davies (q.v.) and was born in Holywell in about 1865 (from later census data). He was living with his widowed mother and siblings at Holywell in 1871 as a scholar (age 6) and as a clay pipemaker in 1881 (age 16), when he would have been helping with the family business in Whitford Street. By 1891 he had moved to Leicester, where he was working as a Venetian blind maker, and was married with two children.

Mary Ann Davies (recorded as a pipemaker in Leicester in 1851 and Holywell 1871-1901)

- 1824 Mary Ann Smith was born on 22 December 1824 in Seaford, Sussex; baptised there on 23 January 1825, daughter of John and Ann Smith.
- 1851 Listed in Sanderson's Yard, All Saints, Leicester, where she was described as an unmarried visitor named Mary Smith, 26 (1825), pipe trimmer, born Seaford, Sussex. With her was her 7-month-old son Samuel Smith, born in Leicester, who was listed as the son of John Davies, the head of the household, 29 (1822), pipemaker, born Chester. The couple later married.
- 1869 A note in *The Wrexham Advertiser* for Saturday 23 October (Issue 873, p4) notes the death on the 16th inst., aged 50 years, of Mr J. Davies, pipemaker, Holywell (Mary Ann's husband).
- 1871 The census for Mount Zion, Whitford Street, Holywell, includes the following household (listed next but one to the 'Coach and Horses'):

Mary Ann Davies	Head	Wid	45	Tob Pipe Manufacturer	Sussex, Seaford
Samuel Davies	Son	Unm	20	Tob Pipe Manufacturer	Leicester
Louisa Davies	Dau	Unm	17	at home	Nottingham
David Davies	Son	Unm	15	Pipe Maker	Holywell
Thomas Davies	Son	Unm	11	Scholar	Holywell
Charles Davies	Son	Unm	9	Scholar	Holywell
Joseph Davies	Son	Unm	6	Scholar	Holywell

- 1874 Described as 'Mrs Davies', a tobacco pipemaker in Whitford Street, Holywell (Worrall's directory, p51).
- 1876 Described as 'Mrs Davies' a tobacco pipe manufacturer in Whitford Street, Holywell (Cassey's directory, p128).
- 1881 The census for Whitford Street, Holywell, includes the following household (which is listed next to the 'Coach and Horses'):

and morbes j.					
Mary Ann Davies	Head	Wid	56		Sussex, Seaford
Samuel Davies	Son	Unm	30	Clay Pipe Maker	Leicester
Thomas Davies	Son	Unm	21	Clay Pipe Maker	Holywell
Charles D. Davies	Son	Wid	19	Joiner	Holywell
Joseph Davies	Son	Unm	16	Clay Pipe Maker	Holywell
John W. Davies	Grandson	Unm	5		Holywell

- 1899 Listed as Mrs Davies, pipemaker, Whitford Street, Holywell (Bennett's directory, p62).
- 1901 Living with two of her sons in Whitford Street, Holywell, in a small house with just three rooms, next to the Coach and Horses Inn. The family was described as:

Mary Ann Davies	Head	Wid	76	Clay Pipe Manufacturer	Employer	Sussex, Seaford
Samuel Davies	Son	S	50	Clay Pipe Manufacturer	Worker	Leicester
Thomas Davies	Son	S	41	Clay Pipe Manufacturer	Worker	Holywell

1904 - Probably the Mary Ann Davies who died at Holywell in the first quarter of 1904, age 79 (1825).

Mary Ann Davies (née Smith) was born about 1824 in Seaford, Sussex, the daughter of pipemaker John Smith (born Bermondsey, c1799) and his wife Ann, a pipe trimmer from Seaford in Sussex (born c1804). By 1831 the Smith family had moved from Seaford to Leicester (Gault 1979, 376) where Mary Ann must have met the pipemaker John Davies (q.v.) from Chester, with whom she had already had two illegitimate children by the time of the 1851 census (John William, born c1849 and Samuel, born c1850, both in Leicester). At the time of the 1851 census John and Mary Ann were living as a couple in Leicester and both working as pipemakers, but only had one of the children (Samuel) with them. Her father had moved to Nottingham by 1851 and they must have moved there for a short period as well, since their daughter Louisa,

was born at Nottingham in about 1854. By c1856 John and Mary Ann had moved to Holywell (son David born there), where they established their own business in Whitford Street, next to the Coach and Horses Inn. They had at least four more children before John died in 1869, after which Mary Ann carried on the business, being listed as 'Mrs Davies' in subsequent trade directories. She may also have been helped by her brother-in-law, William Davies, who had worked as a pipemaker in Chester most of his life, but was working in Holywell in 1881 and 1891. John and Mary Ann had at least eight children, with most of their boys also recorded working as pipemakers in Holywell (i.e., John William, Samuel, David, Thomas and Joseph). Samuel and Thomas never married and remained living and working as pipemakers for their mother until her death, which was probably in 1904. Her passing probably heralded the end of pipemaking in Holywell, with Samuel, 'formerly a clay pipe maker', being listed in the Holywell Union Workhouse in 1911.

Samuel Davies (recorded as a pipemaker in Holywell 1871-1901)

Samuel Davies was the second illegitimate son of pipemakers John and Mary Ann Davies (q.v.) and was born in Leicester in about September 1850 (age 7 months in the census of 30 March 1851). The family moved to Nottinghamshire briefly before setting up a pipemaking business in Whitford Street, Holywell in about 1856. Samuel never seems to have married and is listed at home working for his widowed mother in 1871, 1881 and 1901. He was not at home and has not been traced in the 1891 census. His mother probably died in 1904 and the pipemaking business probably closed at about this time, with Samuel being listed in the Holywell Union Workhouse in 1911 as 'formerly a clay pipe maker'.

Thomas Davies (recorded as a pipemaker in Holywell 1881-1901)

Thomas Davies was the sixth known child of pipemakers John and Mary Ann Davies (q.v.) and was born in Holywell in about 1860 (from later census ages). Thomas never seems to have married and is listed at home working for his widowed mother in 1881, 1891 and 1901. His mother probably died in 1904 and the pipemaking business probably closed at about this time. Thomas has not been identified in later records.

William Davies (recorded as a pipemaker in Chester 1841-1851, Liverpool 1856, Chester 1861-1871 and Holywell 1881-1899)

- 1822 Baptised on 12 May at St John the Baptist, Chester, son of the pipemaker Samuel Davies and his wife Maria from Love Street.
- 1841 Recorded as a 15-year-old apprentice pipemaker living with his parents and siblings in Love Street, Chester. His father John (45) and two of his siblings, John (20) and Joseph (15) were also pipemakers.
- 1846 William Davies, 24, bachelor, pipemaker, Love Street, son of Samuel Davies, pipemaker, married Frances Hughes, 21, spinster, servant, Foregate Street, daughter of Edward Hughes, labourer, on 14 April at St John's, Chester. William signed neatly and Frances made her mark. Witnesses were William Piercy and John Powell.
- 1846 Listed as a pipemaker in Love Street, Chester, in William's directory (Rutter and Davey 1980, 233).
- 1847 William Davies, pipemaker, Love Street, and wife Frances, baptised two children at St John the Baptist, Chester, on 30 June (Mary and Joseph).
- 1848 Listed as a pipemaker in Love Street, Chester, in William's directory (Rutter and Davey 1980, 233).
- 1851- Listed Love Street, Chester, widower, 28 (1823), pipemaker, living with his mother, Maria, 62 (1789), pipe manufacturer.
- 1856 William Davies, widower and pipemaker of Cheapside, Liverpool (son of Samuel Davies, pipemaker) married Phoebe Davies, spinster of Richmond Row, Liverpool (daughter of William Davies, Tailor) at St Nicholas, Liverpool, on 21 December. William signed with a good signature; Phoebe made her mark. Witnesses were William and Elizabeth Roberts.
- 1861 Listed at 1 Booth's Entry, Foregate Street, Chester, 39 (1822), clay pipemaker, married to Phoebe (39) and with a son, Edmund (1), both of whom were born in Holywell.
- 1871 Listed at 1 Booth's Court, Foregate Street, Chester, 42 (1829), pipemaker, married to Phoebe (49) and with sons Thomas (24) and Edmund (11), all of whom were born in Holywell.
- 1881 Listed at Penyball Street, Holywell, 59 (1822), clay pipemaker, married to Phoebe (59) and with sons Edwin (21; labourer) and William (8; scholar), all of whom were born in Holywell.
- 1891 Listed at Pen y Ball Street, Holywell, 69 (1822), tobacco pipemaker, married to Phoebe (69) and with three lodgers.
- 1895 The 'Deaths' section of the *Flintshire Observer Mining Journal and General Advertiser*... for 21 November notes, "On the 17th inst., Phoebe, wife of Mr. William Davies, pipemaker, Holywell, aged 73 years." (National Library of Wales, Welsh Newspapers Online).
- 1899 The 'Deaths' section of the *Flintshire Observer Mining Journal and General Advertiser...* for 7 September notes, "On the 3rd inst., Mr. Wm. Davies, pipe-maker, late of Penyball-street, Holywell, aged 77 years." (National Library of Wales, Welsh Newspapers Online).

William Davies came from a well-established Chester pipemaking family and presumably learnt the trade from his father, Samuel, who worked in Love Street. He was still living at home in 1841, when he was listed as an apprentice. He subsequently set up his own business, being listed in Love Street in directories of 1846 and 1848. He also married in 1846 and appears to have had a child, the 1871 census listing a son Thomas, born at Holywell in about 1847. He was widowed

and living with his mother in Love Street in 1851 but remarried to Phoebe from Holywell, with whom he is listed in the 1861 and 1871 census returns in Foregate Street, Chester. William must, however, always have had links with Holywell, since his two younger children were also born there (Edwin *c*1860 and William *c*1873). Furthermore, his brother John had set up a pipe workshop in Holywell in about 1856 and William and Phoebe moved there during the 1870s, perhaps to help John's widow run the pipe business (John having died in 1869). William is listed as a pipemaker in Pen-y-ball Street, Holywell, in 1881 and 1891. He was still described as a pipemaker in 1895 when his wife, Phoebe, died on 17th November, aged 73. Although still described as a pipemaker when he died in 1899, he was then aged 77 and described as 'late of Pennyball St' and so may well have already been retired.

Samuel Eastwood (recorded as a pipemaker at Hawarden in 1840, at Bistre, Buckley, in 1841 and in Halifax 1851-1881)

- 1820 Samuel, son of pipemaker William Eastwood and his wife Sarah of Swine Market, Halifax, was born on 10 January and baptised at the South Parade Chapel (Wesleyan) on 20 April 1820.
- 1840 Samuel Eastwood, 20 (1820), bachelor, pipemaker, son of William Eastwood, pipemaker, married Elizabeth Hayes, 26 (1814), spinster, daughter of Jeremiah Hayes, pipemaker, at Hawarden church on 27 July. Both were living in Hawarden at the time. Samuel Eastwood signed, Elizabeth Hayes made her mark. Witnesses were Thomas Pears and William Bennett.
- 1841 Samuel Eastwood, 20 (1821), not born in the county, and his wife Elizabeth, 25 (1816), born in the county, were living at Buckley in the census. Living with them were four other pipemakers; Elizabeth Hayes, 50 (1791); Joseph Riley, 20 (1821); William Hewson, 20 (1821) and Elizabeth Evans, 15 (1826). Elizabeth Hayes (*q.v.*) was born in the county, and almost certainly Elizabeth Eastwood's aunt, the other three were not born in the county and were probably itinerant workers.
- 1851 Living at 16 Holland's Buildings, Skircoat, Salterhebble, Halifax, 30 (1821), tobacco pipemaker, married to Elizabeth and with three children.
- 1871 Living at Southowram, Halifax, 50 (1821), tobacco pipemaker, with son James (20), also a pipemaker.
- 1881 Widowed, 60 (1821), tobacco pipemaker, living at 12 Exley Bank, Halifax, with his 30-year-old son James (1851), also a tobacco pipemaker, born at Southowram, and family.

Samuel came from a pipemaking family in Halifax but married Elizabeth Hayes in Hawarden when he was just 20 - presumably having met her while working in North Wales as a journeyman. They were living in nearby Bistre the following year, where they may well have been helping Elizabeth's aunt, also Elizabeth Hayes, in operating a pipe workshop. The aunt died in 1842 and, by 1851, he had returned to Halifax, where he appears to have remained as a pipemaker for the rest of his life.

Elizabeth Evans (recorded as a pipemaker at Bistre, Buckley, 1841)

1841 - The census for Bistre, Buckley, lists one property with two households living in it; Samuel and Elizabeth Eastwood and then Elizabeth Hayes and three other pipemakers, as follows:

Samuel Eastwood	20	Pipe Maker	Not born in the county
Elizabeth Eastwood	25		Born in the county
Elizabeth Hayes	50	Pipe Maker	Born in the county
Joseph Riley	20	Pipe Maker	Not born in the county
William Hewson	20	Pipe Maker	Not born in the county
Elizabeth Evans	15	Pipe Maker	Not born in the county

Elizabeth Evans has only been traced once as a pipemaker, when she was about 15 and living with Elizabeth Hayes in Bistre, for whom she was probably working as a pipemaker. She had not been born in Flintshire and the name is far too common for her to be traced with any certainty in other records. She was probably just working as a trimmer for the other journeymen living with Elizabeth Hayes.

Thomas Fox (recorded as a pipemaker at Hawarden 1716-1732)

- 1691 Thomas, son of Thomas Fox (no occupation given), baptised at Hawarden on 20 October.
- 1713 Thomas Fox married Maria Price at Hawarden on 29 December.
- 1716 Pipemaker of Hawarden, son of Thomas Fox of Hawarden, baker, defunct, granted Freedom of Chester on 12 October (Rutter & Davey 1980, 237).
- 1721 Thomas, son of Thomas Fox (no occupation given), baptised at Hawarden on 9 January 1720/21 (probably the Thomas Fox of Ewloe, no occupation given, who was buried at Hawarden on 18 December 1789).
- 1721 Bond dated 26 December in the penalty of £40 from Richard Brooke of Hawarden, co. Flint, gent., for the payment of £20 to Thomas Fox of Hawarden aforesaid, pipemaker (NLW: Hawarden Deeds / 882).
- 1725 Thomas, son of Thomas Fox (no occupation given), baptised at Hawarden on 6 January 1724/25.
- 1732 Thomas Fox of Hawarden voted in the Chester election of 1732 (Rutter & Davey 1980, 237).

Thomas Fox was baptised in Hawarden in 1691 and appears to have been the younger brother of Jane Fox, who married the pipemaker Thomas Hayes (1676-1720) of Ewloe on 25 December 1699, when he would have been about eight. Thomas Fox's father was a baker, so it seems likely that Fox would have learnt the pipemaking trade from his older brother-in-law, Thomas Hayes. He became a freeman of Chester in 1716, which would have allowed him to trade in the city, and he voted there in 1732. His children, however, were baptised in Hawarden, where he is likely to have actually worked (including the Buckley/Ewloe area). There is a mortgage of 26 December 1721 for £20, by way of a demise for 1000 years at a peppercorn rent, from Richard Brooke of Hawarden, co. Flint, gent., and Catherine his wife, to Thomas Fox of Hawarden, pipemaker, of three butts of land in the Plant Ridding near Daniels Ash, co. Flint, and half a lound of ground called Oaky Dale Butt in the Middle Greet in Hawarden aforesaid. Witnesses: William Hughes; Jno. Sparrow; Hu. Thomas (National Library of Wales: Hawarden Deeds / 881). The Welsh Probate Records Index has numerous references to individual(s) named Thomas Fox from Hawarden or Ewloe around the middle of the eighteenth century with the individual(s) mainly being listed as an appraiser or bondsman. In a few instances the individual is named as an innkeeper at Hawarden (1738, 1749 and 1752) but it is not known whether any of these references relate to the person previously recorded as a pipemaker.

Abel Hayes (likely to have been pipemaking at Ewloe, c1720-c1750 and Liverpool c1750-1803)

Able Hayes, son of Thomas Hayes, was baptised on 7 September 1706 at Ewloe. Thomas is presumed to have been the pipemaker from Ewloe (c1676-1720, q.v.) and Abel is likely to have learnt the trade from him as he grew up. It is presumed that this is the same Abel Hayes of Hawarden who married Hannah Connah, also of Hawarden, at Nannerch on 13 January 1749/50 (no occupation given; just possibly this is the Anna Conna, son of George Conna of Ewloe, who was baptised at Hawarden on 27 June 1708). It is suggested that this is the same Abel Hayes who subsequently moved to Liverpool because an Abel Hayes died there and was buried on 11 August 1803 with the extraordinary age of 100 being listed, which is close enough to tally with the documented birth in 1706. It is also known that there was a pipemaker named Abel Hayes working in Liverpool with a wife called Hannah, which would fit too. On 16 July 1754 Hannah, the wife of Abel Hayes, pipemaker, was buried in Liverpool. On 7 August 1772 Abel Hayes of Liverpool, pipemaker, and Elizabeth Wardley of the same place, spinster, were married at St Nicholas. This could also have been the same person, since he would still only have been about 66 at the time. No occupation is given at the burial in 1803, but he is likely to have retired well before that date, especially since his age was given as 100. He would have had relations in Liverpool to care for him in his old age, however, since both his nephew Thomas Hayes (1722-1797) and Thomas's son, also Thomas (1749-1800) are also thought to have moved from Hawarden to Liverpool towards the end of the eighteenth century.

Abel Hayes (recorded working in Wrexham 1825-1871)

- 1797 Abel, son of Thomas Hayes and Sarah (née Ellis), pipemaker, Hawarden, baptised at Hawarden on 8 February.
- 1825 Thomas, son of Abel and Sarah Hayes, Penybryn, pipemaker, baptised 7 March at Wrexham.
- 1826 William, son of Abel and Sarah Hayes, Penybryn, pipemaker, baptised 26 December at Wrexham.
- 1828 Sarah, daughter of Abel and Sarah Hayes, Penybryn, pipemaker, baptised 3 September at Wrexham.
- 1830 Margaret, daughter of Abel and Sarah Hayes, Penybryn, pipemaker, baptised 3 September at Wrexham.
- 1833 Mary, daughter of Abel and Sarah Hayes, Pen y bryn, pipemaker, baptised 13 March at Wrexham.
- 1851 The census for Tuttle Street, Wrexham includes the following:

Abel Hayes Lodger Wid 52 pipe maker Flints, Hawarden Edward Hayes Lodger 12 Denbigh, Wrexham

1861 - The census for 14 Tuttle Street, Wrexham includes the following:

Abel Hayes Lodger Wid 54 tobacco pipe maker Flints, Hawarden

1871 - The census for 14 Tuttle Street, Wrexham includes the following:

Abel Hayes Lodger Wid 73 earth pipe maker Flints, Hawarden

1874 - The death of an Abel Hayes was registered at Wrexham (Q1), age 67 (1807).

Abel Hayes was born at Hawarden, the son of pipemaker Thomas Hayes (*c*1770-1829; *q.v.*), in about 1797. His father appears to have remarried at Chester in 1811 and was baptising children in Wrexham from 1812 onwards, where he also appears in local trade directories. Abel is likely to have moved with him and to have worked at the family business in Peny-bryn, Wrexham. This is certainly where he is recorded from 1825-1833 when his children were baptised. He appears to have had a son, Edward, in about 1839, but was widowed and living as a lodger in Tuttle Street, Wrexham, by 1851. He remained in Tuttle Street, working as a pipemaker, until at least 1871 and is probably the Abel Hayes who died in Wrexham in 1874. None of his children are known to have been pipemakers and Abel does not appear in his own right in trade directories. He may have worked for his younger half-brother Thomas (1814-1875, *q.v.*), who appears to have taken over his father's workshop at Pen-y-bryn.

Anne Hayes (probably working in Wrexham c1812-1845)

Anne Davies was born in Corwen, Merionethshire, in about 1781. She married the pipemaker Thomas Hayes (c1770-1829, q.v.) at St Oswald's, Chester, on 15 July 1811 and the couple had at least four children who were baptised in Wrexham between 1812 and 1821 (Sarah 1812, Thomas 1814, Margaret 1818 and John 1821). Both sons went on to

become pipemakers. Thomas worked in Pen-y-bryn until his death in 1829 after which their son Thomas (q.v.), baptised in 1814, appears to have taken over the business, being recorded as a pipemaker at Pen-y-bryn in his own right in 1844. Anne probably helped with the family business throughout this period. In 1851, aged 70, Anne was living in Bridge Street, Wrexham, with her daughter Sarah and family, headed by James Rogers, who was a tailor. She was described at that date as 'formerly pipemaker'.

Edward Hayes (perhaps a pipemaker in Wrexham prior to 1731/2)

Edward was an innholder in Wrexham who could perhaps also have been a pipemaker. In his will of 1 May 1731 (Probate granted 16 March 1732) he leaves property to his wife, Mary, including "two messuages or tenements and a kiln ... opposite a house called the Mount" (National Library of Wales SA/1732/160 W). The nature of the kiln is not specified, and it could have been a malt kiln for the brewing trade. Pipemaking, however, was also an associated trade sometimes carried on by publicans, and other individuals named Hayes were certainly pipemakers in the Hawarden area at this date. Edward's son Thomas appears to have been a mason and Edward's relationship with the pipemakers named Hayes is unknown.

Elizabeth Hayes (recorded as a pipemaker at Hawarden from 1828-1835 and at Bistre, Buckley, in 1841)

- 1787 Elizabeth, daughter of Jeremiah and Margaret Hayes, baptised at Hawarden on 15th August.
- 1828 Listed as a pipemaker in Hawarden (Pigot's directory, p1156).
- 1835 Listed as a pipemaker in Hawarden (Pigot's directory, p698).
- 1841 The census for Bistre, Buckley, lists one property with two households living in it; Samuel and Elizabeth Eastwood and then Elizabeth Hayes and three other pipemakers, as follows:

Samuel Eastwood	20	Pipe Maker	Not born in the county
Elizabeth Eastwood	25		Born in the county
Elizabeth Hayes	50	Pipe Maker	Born in the county
Joseph Riley	20	Pipe Maker	Not born in the county
William Hewson	20	Pipe Maker	Not born in the county
Elizabeth Evans	15	Pipe Maker	Not born in the county

1842 - Buried at Bistre on 20 September, age 56 (1786).

These references are all thought to relate to the same individual. Elizabeth Hayes was the daughter of the pipemaker Jeremiah Hayes (1744-1820) and never seems to have married. She is presumed to have helped at her father's workshop until his death, after which she appears to have operated it under her own name (1828 and 1835 directories). In 1841 she was living with her niece, who had married pipemaker Samuel Eastwood, and three other young pipemakers, which suggests that she may still have been in charge of the workshop. The census places her at Bistre, Buckley, but this may well have been regarded as part of Hawarden for the purposes of the earlier directories, so this could have been the same workshop her father had previously operated. She died the following year, aged 56. Stem stamps reading 'J.HAYES. HAWARDEN' are known and, if these belonged to her father, Elizabeth may have continued using the same mark until her own death.

Henry Hayes (recorded as a pipemaker at Wrexham 1867-1868 and at Gillingham, Kent, in 1871)

- 1851 Henry Hayes was 1 month old in the census, only son of John Hayes (pipemaker, age 30) and Sarah (laundress, age 26), living at 'Isle of Man', Wrexham Abbot.
- 1867 The Chester Chronicle for 25 May 1867 includes the following report,

 GAME TRESPASS Henry Hays, of Wrexham, tobacco pipe-maker, was summoned for trespassing on land, in the occupation of Mr. Edwin Humphreys, at Bersham, on the 12th inst., in search of game.-Thomas Hopley, gamekeeper to Thos. Lloyd Fitz-Hugh, Esq, proved the case, and stated that the defendant had been cautioned several times.-Fined 10s., and 9s. 6d. costs.
- 1868 A note in *The Wrexham Advertiser* for Saturday 5 December (Issue 829, p5) reports on an accident to which he was a witness,
 - Henry Hayes was then called. He said: I am a pipe maker. I remember the polling day in Wrexham. I was standing by the Wynnstay Arms yard, and saw the horses running away with the 'bus down Yorke-street. I followed the 'bus about 12 or 15 yards behind. I saw a woman coming up on the parapet on the left-hand side, and the 'bus met her by Mr Brunt's shop window. The 'bus crushed her by Mr Brunt's shop window. I saw no one in charge of the horses. I did not see Evan Jones. I carried her with the help of two other men. The Coroner: Why did you not take her to some nearer public house? Witness: The people would not let us. They said the Wynnstay Arms 'bus did it. "Take her to the Wynnstay Arms".'
- 1871 The census lists Henry as an inmate in Gillingham Convict Prison, Kent. He was listed as a 21-year-old tobacco pipemaker, born in Wrexham.
- 1881 The census lists him boarding at 3 Northern Ireland Street, Toxteth Park, Liverpool with his wife Phoebe. He was given as a carter, 29 (1852), born in Wrexham. At the same address was his younger brother John, 25 (1856), unmarried, and also a carter.

Henry was the eldest of four known children of John Hayes (1821-?1876), a pipemaker in Wrexham, and was born in 1851. The family cannot be traced in the 1861 census, but Henry is likely to have helped his father as he grew up and certainly described himself as a pipemaker in 1867, when he would have been about 16. He was found guilty of poaching game at Bersham in that year and, by 1871 he had ended up in prison at Gillingham in Kent, where he was also described as a pipemaker. He appears, however, to have given up pipemaking during the 1870s, being described as a carter in Toxteth Park, Liverpool, in 1881, as was his younger brother John (born *c*1856), who was then lodging with him at the same address.

Jeremiah Hayes (c1744-1820: probably worked as a pipemaker in Hawarden c1760-1820)

- 1744 Jeremiah, son of Thomas Hayes ye younger of Hawarden, baptised at Hawarden, 11 November.
- c1770 Son Thomas born (Thomas was recorded as the son of Jeremiah Hayes at his marriage to Sarah Ellis at Hawarden on 24 July 1791).
- 1782 Married to Margaret Jones (Bentley, Davey and Harrison 1980, 273).
- 1783 Jeremiah, son of Jeremiah and Margaret Hayes of Hawarden, baptised at Hawarden, 28 September.
- 1787 Elizabeth, daughter of Jeremiah and Margaret Hayes of Hawarden, baptised at Hawarden, 15 August.
- 1791 Prudence, daughter of Jeremiah and Margaret Hayes (née Jones) of Hawarden, pipemaker, was baptised at Hawarden on 16 January 1791.
- 1793 Prudence, daughter of Jeremiah and Margaret Hayes of Hawarden, pipemaker, was baptised at Hawarden on 2 October 1793, age 2.
- 1820 Jeremiah Hayes, pipemaker, Hawarden, buried at Hawarden on 25 December, age 78 (1745).
- 1821 The death duty register names Margaret Hayes as his executor (documents survive in the Hawarden Probate Records at the National Library of Wales: HA/1821/720).
- 1825 Margaret, wife of Jeremiah Hayes, pipe-maker, Hawarden, buried at Hawarden 6 April, age 77 (1748).

These references possibly all relate to the same individual. A Jeremiah Hayes was certainly born to the pipemaker Thomas Hayes 'ye younger' at Hawarden in 1744 and a pipemaker of that name (born around 1745) was buried there in 1820. Bentley, Davey and Harrison (1980, 273) say that this individual married Margaret Jones in 1782, which fits with the later baptisms of children Jeremiah (1783) and Elizabeth (1787), both of whom went on to become pipemakers themselves (q.v.). Jeremiah would, however, have already been 38 when he married Margaret in 1782 and so he could well have been married previously and thus also been the father of Thomas, born c1770 (q.v.), whose father was named as Jeremiah when he married in 1791. It is suggested that Jeremiah's workshop was actually located at Bistre, and that it was taken over by his unmarried daughter Elizabeth (q.v.) following his death in 1820, since an Elizabeth Hayes is listed as a pipemaker in her own right in trade directories of 1828-35. Stem stamps reading 'J.HAYES.HAWARDEN' are known and these could relate to Jeremiah (c1744-1820) and/or Elizabeth (c1787-1842), and/or to Jeremiah's son Jeremiah (c1783-1836).

Jeremiah Hayes (c1783-1836: probably worked as a pipemaker in Hawarden c1800-1836)

- 1783 Jeremiah, son of Jeremiah and Margaret Hayes of Hawarden, baptised at Hawarden, 28 September.
- 1802 Jeremiah Hayes, bachelor and pipemaker, and Hannah Clark, spinster, both of Hawarden, were married at Hawarden by Banns on 27 June. Both signed and the marriage was witnessed by Thomas Hayes and Roger Wilbraham, both of whom also signed. The signature of Thomas Hayes looks to be the same as that of the pipemaker Thomas Hayes (*c*1770-1829, *q.v.*) who married in 1791 and 1811, and is suggested to have been Jeremiah's half-brother.
- 1803 Edward, son of Jeremiah and Hannah Hayes (née Clark), pipemaker, Hawarden, baptised at Hawarden 26 June.
- 1805 Thomas, son of Jeremiah and Hannah Hayes (née Clark), pipemaker, Hawarden, baptised at Hawarden 12 April.
- 1807 Thomas, son of Jeremiah and Hannah Hayes, pipemaker, Hawarden, buried at Hawarden 25 December, age 2. Thomas (q.v.) later became a pipemaker himself.
- 1808 Thomas, son of Jeremiah and Hannah Hayes (née Clarke), pipemaker, Hawarden, baptised at Hawarden 20 July (born 3 July).
- 1814 Elizabeth, daughter of Jeremiah Hayes Junr., pipemaker, and Hannah his wife (née Clarke), Hawarden, baptised at Hawarden 5 October (born 4 January 1811). Elizabeth married the pipemaker Samuel Eastwood (*q.v.*) in 1840.
- 1816 Mary, daughter of Jeremiah Hayes Junr., pipemaker, and Hannah his wife, Hawarden, baptised at Hawarden 21 April (born 18 March 1816). Elizabeth married the pipemaker John Cokeyne (q.v.) in 1841.
- 1821 Abel, son of Jeremiah and Hannah Hayes (née Clarke), pipemaker, Hawarden, baptised at Hawarden 1 July (born 28 June).
- 1836 Presumed death date given by Bentley, Davey and Harrison (1980, 273).

Jeremiah was the son of Hawarden pipemaker Jeremiah Hayes (1744-1820, *q.v.*) and presumably helped his father with the family business as he grew up. He was described as a pipemaker when he married in 1802 and appears to have worked his whole life in Hawarden. His son Thomas (born 1808) went on to become a pipemaker and both of his known daughters also married pipemakers (Elizabeth married Samuel Eastwood in 1840 and Mary married John Cokeyne in 1841). Bentley, Davey and Harrison (1980, 273) give this maker's dates as 1783-1836, the latter presumed to be his death. Evans (1981, 46) also says that he died in 1836. It is not known exactly where this Jeremiah worked but, following their father's death

in 1820, it was his sister Elizabeth who appeared in local trade directories between 1828 and 1835, suggesting that it was her rather than him who had taken over their father's workshop. Stem stamps reading 'J.HAYES.HAWARDEN' are known and these could relate to Jeremiah (*c*1744-1820) and/or Elizabeth, and/or to this Jeremiah himself (*c*1783-1836).

Jeremiah Hayes (?born about 1790 (wife Elizabeth): recorded pipemaking at Wrexham 1819-1842)

- 1819 Edward, son of Jeremiah and Elizabeth Hayes, Wrexham Abbot, pipemaker, baptised at Wrexham on 11 October.
- 1827 Thomas, son of Jeremiah and Elizabeth Hayes, Peny-bryn, pipemaker, baptised at Wrexham on 14 May.
- 1830 Jeremiah, son of Jeremiah and Elizabeth Hase (sic), Penybryn, pipemaker, baptised at Wrexham on 16 July.
- 1842 Edward Hayes, full age, servant, Wrexham Abbot, son of Jeremiah Hayes, pipemaker, married Esther Pugh, spinster, servant, Wrexham Abbot, daughter of Edward Pugh, farmer, at Wrexham on 28 November.
- 1846 The death of a Jeremiah Hayes was registered at Wrexham in the first quarter of 1846.

While there is no doubt that a pipemaker named Jeremiah Hayes was working at Pen-y-bryn, Wrexham from at least 1819-1830, it has not been possible to find many other details of his life or to establish how he fits into the broader Hayes family tree. He does not appear in his own right in trade directories and was presumably working for Thomas Hayes (c1770-1829, q.v.), who is listed as such at Pen-y-bryn. There was also a second possible Jeremiah Hayes working in Wrexham at this period, since the birth of a Joseph Jeremiah Hayes to pipemaker Jeremiah and Sarah is also recorded in 1830 (see Jeremiah Hayes, born c1800). This record, however, comes from a later baptism record and it is possible that this was a second baptism where the wife's name was put in error as Sarah rather than Elizabeth and the name changed from Jeremiah to Joseph Jeremiah. Jeremiah was recorded as a pipemaker when his son married in 1842 and could be the Jeremiah Hayes who died in Wrexham in 1846.

Jeremiah Hayes (born c1792, son of Thomas: Probably worked as a pipemaker in Hawarden before 1808 and recorded as a pipemaker in Middlesex 1838-1861)

- 1792 Jeremiah, son of Thomas Hayes, pipemaker, and Sarah (née Ellis) of Hawarden baptised 19 August.
- 1808-1816 Jeremiah was a soldier in the 8th Kings Regiment of Foot (see 1861 removal order reference below).
- 1838 Jeremiah Hayes, widower, tobacco pipe-maker, son of Thomas Hayes, tobacco pipe-maker, married Ann Gowland, widow, daughter of William Kipps, tobacco pipe-maker, at St Mary, Whitechapel, Middlesex, on 4 June. Both were given as of 4 Walbrook Court, St George in the East. Jeremiah signed and Ann made her mark. Witnesses were Henry Chapman and ??Sarah Wilkinson.
- 1841 The census for 3 Western Passage, St George, Tower Hamlets, Middlesex, incudes:

Jeremiah Hayes	48	Pipe Maker	Not born in the county
Ann Hayes	44	Pipe Maker	Not born in the county
Sarah Hayes	4		Born in the county
James Hayes	1		Born in the county
Robert Gowland	14		Not born in the county
Eliza Gowland	1		Not born in the county

1851 - The census for 10 Ratcliffe Sq, St Dunstan's, Stepney, Middlesex, incudes:

Jeremiah Hayes	Head	Mar	58	Tobacco Pipe Maker	Hawarden
Ann Hayes	Wife	Mar	55	Tobacco Pipe Finisher	Chatham
Sarah Hayes	Dau	U	14	Scholar	Somers Town
James Hayes	Son	U	11	Scholar	St George in the East

1861 - Bethnal Green, Orders of Removal (11 January).

- Jeremiah Hayes 70. Tobacco Pipe Maker. 20 Old Nichol St 4 yrs. John Street Hare St 2 yrs. 4 Half Nichol St 2 yrs. Widower never a/c. Son of Thomas and Sarah Hayes married at a village called Hawarden, Flintshire, North Wales, their native place where Ext. was born. Parents never in London and Ext. Being a soldier in the 8th Kings Regt. of Foot got his discharge at the end of 8 years in 1816 and stayed in London. He's been on the Tramp several times in search of work but will swear he has not lived outside of B.G. [Bethnal Green] for the 8 years. Wife died in Half Nichol St about 8 years since.
- 1861 Census for 29 Old Nicholl Street, Bethnal Green, Tower Hamlets, Middlesex includes Jeremiah Hayes, visitor, widower, 69 (1792), tobacco pipemaker, born North Wales, Hawarden. With him was James Hayes, visitor, unmarried, 22, ginger beer maker, born in St George's, Middlesex. They were living with John Wilkinson, 32, carman, and his family. Note that a member of the Wilkinson family witnessed Jeremiah's wedding in 1838.

Jeremiah was baptised in Hawarden in 1792, son of the pipemaker Thomas Hayes. He would almost certainly have helped with the family business in Hawarden as he was growing up but joined the 8th Kings Regiment of Foot in 1808 when he was about 16 and served eight years with them. On his discharge in 1816 he remained in London where he is likely to have worked as a pipemaker for the rest of his life. His second wife Ann was the daughter of William Kipps, who also came from a well-established pipemaking family and worked in the trade herself.

Jeremiah Hayes (?born about 1800 (wife Sarah): recorded pipemaking at Wrexham 1830)

Wrexham parish register has an entry for 27 March 1853 where a Joseph Jeremiah Hayes, born 26 June 1830, son of Jeremiah and Sarah Hayes, Peny bryn (*sic*), pipemaker, was baptised. It is not clear why he was baptised at the age of 22 and there is no evidence that Joseph himself became a pipemaker, although he was listed as a general labourer living in Liverpool with George H. Lloyd, a pipe-clay dealer, in 1881. The father, Jeremiah, is a bit of a problem too in that this is the only reference to him that can be found with a wife called Sarah, although the individual referred to is specifically listed as a pipemaker from Pen-y-byrn (presumably in 1830, when his son was born). Another 1830 baptism lists a Jeremiah, son of pipemaker Jeremiah and Elizabeth (see above) and so it is possible that this later baptism relates to the same pipemaker, but with the wife's name incorrectly entered and the son's name changed from Jeremiah to Joseph Jeremiah when he was baptised for a second time.

John Hayes (likely to have been pipemaking at Ewloe, c1673-1709)

- 1673 John Hey (no occupation given) and Ann Mesham of Ewloe married on 25 December (Hawarden PR).
- 1674 Jonathan, son of John Heys of Ewloe (no occupation given), baptised on 13 December (Hawarden PR).
- 1676 Thomas, son of John Heyes of Ewloe (no occupation given), baptised on 30 December (Hawarden PR).
- 1678 John Heays (no occupation given) is indexed in the Admon and Inventory of Mary Daniel of Ewloe (Welsh Probate Records Index, Hawarden Peculiar NLW HA/1678/338).
- 1679 Jeremiah, son of John Heyes of Ewloe, baptised on 20 April (Hawarden PR, no occupation given).
- 1699 The wife (not named) of John Heyes of Ewloe was buried at nearby Nannerch on 2 September (Hawarden PR).
- 1709 John Heys of Ewloe (no occupation given) buried on 18 January 1708/9 (Hawarden PR).
- 1709 John Heyes, pipemaker of Ewloe (Welsh Probate Records Index, Hawarden Peculiar, lists his Admon and Inventory; Probate granted 8 Jan 1708/9 and Inventory dated 26 January 1708/9 NLW HA/1708/721).

John Hayes is important since he is the earliest known member of a family who went on to dominate pipemaking in north-east Wales for the next two centuries, with branches extending right across England and exports crossing the Atlantic. John was listed as a Buckley pipemaker by Bentley, Davey and Harrison (1980, 273), but the only details given for him were the unreferenced dates *c*1653-1708. New research has located the above references, only one of which actually names John as a pipemaker (Admon and Inventory of 1709). The *c*1653 date given in 1980 appears to be an estimated date of birth and not when John is likely to have started making pipes, which, assuming he was a pipemaker all his life, is more likely to have been around the time of his marriage in 1673. He is likely to have been born around 1650, but no birth record has been traced and so his parents are unknown. A number of online family trees suggest he was the John Heyes baptised at Manchester on 14 April 1650, but the name was relatively common in the region and there does not seem to be any evidence that this is the same person, as opposed to any one of the other indivduals with the same name, such as the John Hayes baptised at Nantwich on 19 February 1654/5. What is clear is that pipemaker John Hayes lived in Ewloe (rather than Buckley) and that the records consistently place him there from 1673 onwards. He had three sons, at least one of whom (Thomas *q.v.*, baptised 1676) went on to become a pipemaker. The names of two of his sons, Thomas and Jeremiah, recur repeatedly as pipemakers in later generations of the family.

The original sources have not been checked, but an unreferenced family tree on the Ancestry website (Michael Kay Bennion; accessed 20-8-18) gives the following details. Born about 1650 in Lancashire and married to Anne Mesham at Hawarden on 25 December 1673. Three recorded children, all born at Ewloe: Jonathan (13 December 1674); Thomas (30 December 1676, died 1720); Jeremiah (20 April 1769, died 24 January 1699). Wife Anne died at Ewloe 24 January 1699 and John himself at Ewloe on 18 January 1708. The index of wills in the National Library of Wales lists John as a pipemaker of Ewloe, Hawarden, in a catalogue description of his bond and inventory (HA/1708/721).

John Hayes (recorded pipemaking at Wrexham 1848-1869)

1821 - Baptised at Wrexham on 10 April, son of Thomas Hayes, pipemaker, Penybryn, and his wife Anne (Wrexham PR).

1848 - *The North Wales Chronicle*... for 4 April 1848 includes the following report of proceedings from the Denbighshire Assizes:

STABBING. John Williams, 32, was indicted for cutting and wounding John Hayes, at Wrexham, on the 24th of October last. - Mr. Wynne appeared for the prosecution, and Mr. Townsend for the defence. John Hayes. - I am a pipe-maker, and live at Wrexham. On Saturday night, the 23rd of October, I was with the prisoner, John Williams, at the bridge near the Brook side. I had a dog with me; the prisoner had one also. The two dogs began to fight, and I tried to separate them. The prisoner then kicked my dog, and I struck him. I then received a cut in my thigh, but don't know much about it, for I was very drunk. After I was stabbed I went home. Cross-examined. - This was on Saturday night at midnight; I have known the prisoner many years, and have always been good friends with him. He is a glazier by trade, and has always borne the character of a harmless man. There was a large crowd round us when the dogs were fighting. Don't remember the prisoner saying anything cross to me before I was cut. I was so "fresh" that I remember very little about it. Edward Griffith. - I am a police-officer at Wrexham; and was at Pentrebellan on the night of the 23rd of October. My attention was attracted by a crowd witnessing a dog fight. I endeavoured to disperse them. During the fight I heard a cry from some one, "Oh, I'm stabbed." I afterwards

went to the prosecutor's house, and found him there. He was bleeding from a wound in the thigh. I subsequently apprehended the prisoner. Cross-examined. - The prisoner had no knife when I apprehended him. I saw a man in the crowd with his shirt off, but don't know who he was. There was a large crowd at the fight, and they were as disorderly as might be expected at such a time. Jane Roberts and Samuel Rowlands, two material witnesses, were absent, and called upon their recognizances, but did not appear. His Lordship accordingly ordered the recognizances to be estreated. The Judge then informed the jury that there was no evidence, as the case stood, to fix the prisoner with guilt, and directed acquittal. Verdict - Not Guilty.

- 1848 The Carnarvon and Denbigh Herald... for 1 April 1848 reports the same case and with similar detail, except that it adds.
 - In his address to the prisoner, his lordship told him that transportation would have been his lot, had the offence been proved against him.
- 1849 Given as a bachelor, full age, pipemaker, son of Thomas Hayes, pipemaker, when he married Sarah Jones, full age, spinster, cottager, daughter of Richard Jones, slater at Wrexham church on 26 November. John signed with a good signature; Sarah made her mark. Witnesses James Rogers and Sarah Jane Jones (Wrexham PR).
- 1851 The census for the Isle of Man, Wrexham Abbot, includes the following household:

John Hayes	Head	Mar	30	pipe maker	Denbigh, Wrexham
Sarah Hayes	Wife	Mar	30	laundress	Denbigh, Wrexham
Henry Hayes	Son	U	1 mon	th	Denbigh, Wrexham

- 1856 Given as a pipemaker of 'Walks', Wrexham, when son John baptised on 8 Feb; wife Sarah (Wrexham PR).
- 1858 Mary Ann, daughter of John and Sarah Hayes, Pentre Felyn [Felin], pipemaker, baptised at Wrexham on 18 June.
- 1863 Given as a pipemaker of 'Brewers Place', Wrexham, when daughter Sarah Ann baptised on 22 May; wife Sarah (Wrexham PR).
- 1867 A note in *The Wrexham Advertiser* for Saturday 8 June (Issue 738, p4) reads,

 ASSAULT On Monday last, William Hayes [?error for John Hayes see below], pipe maker, was summoned by

 Henry Salisbury Hudson, one of the same trade, for an assault. Defendant, however, did not choose to appear,
 whereupon complainant paid for a more pressing invitation in the shape of a warrant, which was duly issued, and
 Hayes was brought before T. C. Jones, and T. Eyton Jones, Esquires, on Wednesday, when Hudson stated his case,
 showing that Hayes struck him when at work without any provocation. He was fined 10s. 6d. costs, making 24s.,
 the latter portion of the expenses having been increased materially by the refusing to appear to the summons.
- 1867 A note under 'Local News' in *The Wrexham Advertiser* for Saturday 15 June (Issue 739, p4) reads, WIFE BEATING On Tuesday, John Hayes, pipe-maker, was brought up at the Borough Police Court, charged with beating his wife, and committed to gaol for two months. A short time ago Hayes was fined for assaulting a fellow-workman.
- 1869 The North Wales Chronicle and Advertiser for the Principality for 23 October 1869 says

 John Hayes, 46, tobacco pipe maker, indicted for having, at Wrexham, on the 21st September 1869, knowingly and by means of false pretences, obtained from William Hayes diverse goods, valued at 10s, with intent to defraud the said William Hayes of the same. No True Bill.
- 1869 The Llangollen Advertiser... for 29 October records the verdict of the above case:

 ALLEGED FELONY. In the case of John Hayes, tobacco pipe maker, charged with having at Wrexham, on the 21st
 Sept. last, knowingly and by means of false pretences obtained from W. Hayes divers goods valued at 10s. with intent to defraud the grand jury threw out the bill.
- 1871 Living at 10 Brewery Place, Wrexham (a lodging house) and described as a widower, 46 (1825), labourer, living with son John (14, labourer) and daughter Sarah (8). They had all been born in Wrexham.
- 1876 John Heyes (sic), 53 (1823), died at Wrexham in the first quarter of 1876.

John was the son of the pipemaker Thomas Hayes (c1770-1829), who worked at Pen-y-bryn, Wrexham. He was only about eight when his father died, but the family workshop was probably carried on by his mother Anne (q.v.) until his older brother Thomas (1814-1875; q.v.) was old enough to take it over himself. John was recorded as a pipemaker when he married Sarah Jones in 1849, with whom he had at least four children (Henry, John, Mary Ann and Sarah Ann), one of whom (Henry) is also known to have worked as a pipemaker. John appears to have had something of a temper, being charged at least twice for assault. He was also involved in dog fighting in 1848, when he was stabbed, and charged with (but acquitted of) fraudulently obtaining goods in 1869. He never appears independently in trade directories and so was probably only ever an employee - a suggestion reinforced by the 1867 assault on 'a fellow workman'. He is probably the John Hayes who died at Wrexham in 1876, when he would have been about 55. His son Henry (q.v.) appears to have worked briefly in Wrexham as a pipemaker but had left home by 1871 when he was in prison in Gillingham, aged 20. The impression from the records is certainly that this was something of a 'rough family'.

Thomas Hayes (c1676-1720; likely to have been pipemaking at Ewloe, c1697-1720)

1676 - Thomas Heyes (*sic*) of Ewloe, son of John Hayes, baptised 30 December at Hawarden. An unreferenced source on an Ancestry family tree for Michael Kay Bennion (accessed 20-8-18) gives John's wife's name as Anne (née Mesham).

- 1699 Thomas Heys (*sic*) of Ewloe married Jane Fox of Hawarden at Hawarden on 25 December. Jane was probably the individual of that name, son of Thomas, baptised at Hawarden on 26 June 1682. Note that Thomas Fox (son of Thomas Fox, baker) was recorded as a pipemaker in 1716, and was probably Jane's brother.
- 1720 Thomas Hayes of Ewloe buried 1 October 1720 at Hawarden. No occupation given.

Thomas was the second son of pipemaker John Hayes (c1650-1708). The key dates given above match with the unreferenced dates of 1676-1720 given for Thomas Hayes as a Buckley pipemaker by Bentley, Davey and Harrison (1980, 273). An Ancestry family tree also gives eleven children for the couple, all born at Ewloe (presumably baptism dates): Jonathan, 29 October 1700; Thomas 6 April 1702; Jeremiah, 10 September 1704 (buried 17 December 1709); Abel, 7 September 1706; John, 18 January 1708; Joseph, 7 December 1709; Jeremiah, 2 June 1711; John, 13 February 1714; a male child about 1716; Susan, 1 July 1716 and Anne, 8 July 1720 (Michael Kay Bennion tree; accessed 20-8-18). Thomas probably took Thomas Fox (q.v.), his brother-in-law, as an apprentice and most of his own children are likely to have helped with the family business, with some going on to become documented pipemakers in their own right. Thomas adopted a Broseley style of pipe and mark, many examples of which have been recovered from the Brookhill site in Buckley (Higgins 1983). Thomas was a key manufacturer, whose descendants spread out across the country working as pipemakers for more than the next two centuries. He is likely to have been working on his own account from around 1697 (when he would have been 21) until his death in 1720.

Thomas Hayes (born c1702; likely to have been pipemaking in Hawarden, c1720-1750+)

This Thomas Hayes was baptised on 6 April 1702 at Ewloe. He is listed as a pipemaker and the son of the first pipemaker Thomas Hayes of Ewloe (c1676-1720) by Bentley, Davey and Harrison (1980, 273), who also note that he became a freeman of Chester in 1727. Thomas Hayes (no occupation given) baptised a son Abel in Hawarden on 20 August 1729, which suggests that he was already married by this date, assuming this is the same person. Bentley, Davey and Harrison also list another marriage for the second Thomas in 1743 but, following the marriage, the Hawarden parish registers subsequently record children baptised to 'Thomas Hayes ye younger', which leads the author to believe that this must be a different individual (a grandson of the first Thomas) for two reasons. First, the Thomas born in 1702 (the second Thomas) would have been rather old to have been baptising children in the 1740s, when he would have been in his 40s himself. Second, there would be no need to distinguish the second Thomas as 'ye younger' in the 1740s, if his father had already died in 1720. The use of this term implies that there were two contemporary Thomas', father and son, who had to be distinguished. The father (assumed to be the second Thomas born in 1702) must still have been alive as late as 1749 for the distinction to still be needed and the son (the third Thomas) must have been born about 1720 in order to have been old enough to marry by January 1743. So, it is suggested that this particular Thomas Hayes (the second one) was born in about 1702 and worked in Hawarden from around 1720 until at least 1749. He probably had a son called Thomas in around 1722 and another called Abel, who baptised at Hawarden on 20 August 1729. He probably died between 1749, when his son Thomas was last styled as 'ye younger', and 1760, when he was not. This scenario would also fit with this being the Thomas Hayes 'the elder' who appears in appears in the Hawarden Overseers orders for 7 March 1749/50 having abandoned his wife and children and left the parish. The catalogue entry in Flintshire Record Office (D/BJ/C31) describes this order as being "For the seizure of the goods of Thomas Hays the elder, late of Hawarden pipe-maker, for the maintenance of his wife and children, whom he has deserted, with inventory of his goods."

Thomas Hayes (?c1722-1795, 'Ye Younger'; possibly pipemaking in Hawarden, c1740-1780 and in Liverpool c1780-95)

- 1722 Approximate year of birth, assuming that this is the Thomas Hayes, pipemaker, who died on 1 January 1795 aged 73 years and was buried at St Nicholas, Liverpool, on 4 January 1795 (LRO: 283 1/6).
- 1743 Thomas Hayes and Margaret Roberts of Hawarden were married at Hawarden on 13 January 1742/3. No occupation was listed
- 1744 Jeremiah, son of "Thomas Hayes ye younger of Hawarden" was baptised at Hawarden on 11 November.
- 1749 Thomas, son of "Thomas Hayes ye younger of Hawarden" was baptised at Hawarden on 11 November.
- 1760 Margaret, daughter of Thomas and Margaret Hayes of Hawarden, baptised at Hawarden 28 September (no longer styled 'ye younger').
- 1780 Thomas Hayes of Hawarden, widower, and Sarah Reeves of the same parish, widow, married at Hawarden 4 October 1780. Thomas signed and Sarah made her mark. Witnesses Samuel Harrison and Thomas Field (both sign).
- 1795 Thomas Hayes, pipemaker, died on 1 January 1795 aged 73 years and was buried at St Nicholas, Liverpool, on 4 January 1795 (LRO: 283 1/6).

It has been assumed that all these references belong together and relate to the 'Thomas Hayes ye younger' discussed above (see Thomas Hayes, born c1702). It is suggested that this individual was a pipemaker working in the Ewloe/Hawarden area but that he moved to Liverpool following a second marriage in 1780 to join his son (Thomas Hayes 1749-1800), who also married in 1780 and, in so doing, took over a pipe factory in Liverpool. References to two pipemakers named Thomas Hayes first appear in Liverpool in 1780 and the second ran one of the best-known businesses there during the last two decades of the eighteenth century (Higgins 2014). Their ages of death in 1795 and 1800 respectively match the birth dates of the two Thomas

Hayes' who were baptised at Hawarden.

Thomas Hayes (1749-1780; possibly pipemaking in Hawarden, c1760-1775 and in Liverpool c1775-1800)

This individual is the Thomas Hayes, son of 'Thomas Hayes ye Younger' of Hawarden who was baptised at Hawarden on 8 October 1749. His father is presumed to have been a pipemaker and so Thomas is likely to have learnt the trade and worked with the family as a pipemaker during his formative years. Nothing else has been found regarding this Thomas in the Hawarden area and it is suggested that he moved to Liverpool, probably during the 1770s, since a Liverpool pipemaker of this name married there in 1780 and died, aged 51 (i.e., born c1749), on 12 July 1800 (buried at St Nicholas on 14 July). A marriage licence dated 3 October 1780 shows that Thomas Hayes, pipemaker of Liverpool and bachelor, married Lydia Hutchinson, widow, at St Peter's. Thomas was named as a pipemaker of Strand Street when they baptised children named Thomas in 1783 and 1787 (both of whom also died in 1787). A surviving will of 1800 and a later administration document of 1814 show that Thomas had married a widow called Lydia (née Banner), who had previously been married to the Liverpool pipemaker Jonathan Hutchinson. She and Hutchinson had previously had at least four or five children, two or three of whom are also known to have become pipemakers. Thomas and Lydia married at St Peter's on 3 October 1780 and went on to have several more children, of whom only a daughter, also called Lydia, appears to have survived into adulthood. Daughter Lydia married the Liverpool pipemaker Gow Gibson at St Nicholas' on 28 November 1801, showing how closely interconnected the pipemaking families of Liverpool were at this time. The will is also important in that it specifies exactly where he was working, i.e., "my leasehold Messuage or Dwellinghouse and Warehouse with the Appurtenances now occupied by me situate in Strand Street and running from thence to Marshall's Alley or Diton's Weint in Liverpool". This ties in well with the directory references for him which occur in Gore's Directories for 1787, 1790, 1796 and 1800 and the Universal Directory of 1794. Most of the directory references give two addresses, which his will shows were interconnected, with the main dwelling and warehouse on the Strand. The directory references (with property numbers, where given, in brackets) are as follows:

Strand Street 1787, 1790 (31 & 46), 1796 (46), 1800 (9)

Marshall's Alley 1794 (1), 1796 (2), 1800 (2)

The 1790 directory gives two addresses, with Hayes being listed at 31 Strand Street and the warehouse at 46 Strand Street. This suggests that he was relatively successful, something that is supported by the later legal paperwork, which suggests that his estate ran into several hundred pounds. The absence of earlier directory references (prior to 1787) is hard to explain and it is possible that the family only rose to prominence during the 1780s, perhaps after Thomas had married Lydia, the widow of Jonathan Hutchinson and taken control of his business. Jonathan Hutchinson (I) is listed in Strand Street from 1777-81 (directories) and from 1789-1800 his son, Jonathan II, is listed as a pipemaker in Lumbar Street. Jonathan II appears to have an illegitimate child of Jonathan I and Lydia, baptised in Manchester nearly three years before they were actually married. After the first Jonathan's death in 1780 (died 26 April and buried 28 April 1780 at St Nicholas), his whole estate was left to his widow, Lydia, for her life, and so the tenancy of the Strand Street pipe works almost certainly passed with her to Hayes when they married later in the same year. At the same time, Jonathan II moved to Lumbar Street to establish his own works. This would account for both the change of address for son Jonathan, and Thomas' apparent rise to prominence during the 1780s. Thomas's father, also Thomas (c1722-95), also appears to have moved to Liverpool following his second marriage at Hawarden in 1780, presumably to help his son in the new business. It seems likely that he took over the Strand Street manufactory in 1780 and, for the next 20 years, was one of the most prominent manufacturers in Liverpool. Examples of his pipes have been excavated from kiln dumps in Liverpool, showing that he marked them with is name in a long-line Liverpool style stamp (Higgins 2014). Examples of his marked pipes have been found in Dorset, Staffordshire, Sussex and Argentina, showing that he exported widely.

Thomas Hayes (c1770-1829; recorded pipemaking at Hawarden 1791-1803, at Chester in 1811 and at Wrexham 1812-1829)

c1770 - Birth at Hawarden (based on age time of death at Wrexham in 1829).

- 1791 Thomas Hayes, son of Jeremiah Hayes of Hawarden, bachelor and pipemaker, and Sarah Ellis of the same parish, spinster, were married by banns at Hawarden with the consent of their parents on 24 July 1791. Thomas signed and Sarah made her mark. Witnesses were William Deakin Junr and William Lee, both of whom signed. Sarah Ellis of Pentrobin, daughter of William and Anne (no occupation given), had been baptised at Hawarden on 15 September 1771.
- 1792 Jeremiah, son of Thomas and Sarah Hayes (née Ellis) of Hawarden, pipemaker, was baptised at Hawarden on 19 August 1792.
- 1795 Edward, son of Thomas and Sarah Hayes (née Ellis) of Hawarden, pipemaker, was baptised at Hawarden on 17 February 1795.
- 1797 Abel, son of Thomas and Sarah Hayes (née Ellis) of Hawarden, pipemaker, was baptised at Hawarden on 8 February 1797.
- 1799 Joseph, son of Thomas and Sarah Hayes (née Ellis) of Hawarden, pipemaker, was baptised at Hawarden on 19 May 1799.

- 1802 Sarah wife of Thomas Hayes, pipemaker, age 29 (1773), was buried at Hawarden on 12 January.
- 1803 Joseph, son of Thomas and Sarah Hayes, pipemaker, was buried at Hawarden on 18 January, age 3.
- 1811 Chester, St Oswald: Thomas Hayes, pipe-maker, and Ann Davies, spinster, both of the parish, were married by Banns on 15 July 1811. Thomas signed and Ann made her mark. Witnesses were Thomas Evans (signed) and Elizabeth Edwards (made her mark).
- 1812 Sarah, daughter of Thomas and Anne Hayes, Pipe-Maker, Wrexham Abbot, born 17 November and baptised 7 December 1812 at Wrexham.
- 1814 Thomas, son of Thomas Hayes, pipemaker, and Anne of Wrexham Abbott, baptised 26 December (Wrexham PR).
- 1818 Margaret, daughter of Thomas and Anne Hayes, Pipemaker, Wrexham Abbot, baptised 12 April at Wrexham.
- 1818 T. Hayes, pipemaker, Pen-y-bryn (sic; Pigot's directory, p485).
- 1821 John, son of Thomas Hayes, pipemaker, and Anne of Penybryn, baptised 10 April (Wrexham PR).
- 1822 T. Hayes, pipemaker, Penybryn (sic; Pigot's directory, p732).
- 1828 Thomas Hayes, pipemaker, Pen y bryn (sic; Pigot's directory, p1180).
- 1829 Thomas Hayes, pipemaker, Pen y bryn (sic; Pigot's directory).
- 1829 Thomas Hayes, age 59 (1770), Penybryn, buried at Wrexham, 5 March.

It is suggested that all these references relate to the same Thomas Hayes, who was born in about 1770 at Hawarden. If so, he was the son of the pipemaker Jeremiah Hayes (1744-1820) by a first marriage and was probably still under 21 when he married Sarah Ellis in 1791, since the couple married with the consent of their parents. Thomas is consistently given as a pipemaker of Hawarden when at least three children were baptised between 1792 and 1799, with both surviving sons (Jeremiah, bap 1792, and Abel, bap 1797) going on to become pipemakers. His wife Sarah died in 1802 and their youngest son in January 1803 - both were buried at Hawarden. It cannot be proved for certain, but it seems likely that Thomas then moved to Chester where he remarried to a younger woman called Anne Davies (in 1811), who had been born about 1781 in Corwen, Merionethshire, and the couple moved to Wrexham, where a pipemaker named Thomas Hayes with wife Anne baptised at least four children between 1812 and 1821. The baptisms all relate to Wrexham Abbot, which is where a pipemaker named Thomas Hayes is also listed in trade directories at Pen-y-bryn between 1818 and 1828. Thomas Hayes of Pen-y-bryn died in 1829 age 59, which tallies with a birth date of *c*1770. Both of his known later sons (Thomas, bap 1814 and John, bap 1821) went on to become pipemakers in Wrexham and his second wife Anne (*q.v.*) was described in 1851 as having formerly been a pipemaker.

Thomas Hayes (1808-1841+; recorded pipemaking at Aston, Hawarden, in 1841)

- 1808 Thomas, son of Jeremiah and Hannah Hayes (née Clarke), pipemaker, Hawarden, baptised at Hawarden 20 July (born 3 July).
- 1841 The census for Ewloe Lane, Aston, Hawarden includes the following household:

Thomas Hayes	30	Pipe Maker	Born in the county
Elizabeth Hayes	25		Born in the county
Hannah Hayes	3		Born in the county

Thomas Hayes was born in 1808, the son of pipemaker Jeremiah Hayes (1783-1836) of Hawarden (q.v.). He is presumed to be the individual recorded as a pipemaker at Ewloe Lane in 1841 but has not been traced in other records. His two sisters both married pipemakers (Samuel Eastwood and John Cokeyne, q.v.)

Thomas Hayes (1814-1875: recorded pipemaking at Wrexham 1835-1871)

- 1814 Thomas, son of Thomas Hayes, pipemaker, and Anne of Wrexham Abbott, baptised 26 December (Wrexham PR).
- 1835 Thomas Hayes, tobacco pipemaker, Pen y bryn (Pigot's directory, p730).
- 1844 Thomas Hayes, tobacco-pipemaker, Pen y bryn (Slater's directory, p68).
- 1845 Gresford Parish Church, Wrexham: Thomas Hayes, bachelor, pipemaker, Felinpuleston (Wrexham), son of Thomas Hayes, pipemaker, married Emma Jones, spinster, Erdig (Wrexham), daughter of Thomas Jones, wheelwright by Banns on 22 December. Both were of full age and both signed. Witnesses were Charles Rogers and Elizabeth Jones, both of whom made their mark.
- 1851 Kenrich Street, Wrexham, 36 (1815), pipemaker, married to Emma, 38 (1813), dress maker. Both born in Wrexham (census). No children or other household members.
- 1861 30 Pentre felin, Wrexham Abbot, 45 (1815), tobacco pipemaker, married to Emma, 45 (1815), no occupation given. Both born in Wrexham (census). No children or other household members.
- 1864 Death of wife Emma (registered at Wrexham, Q2 (April-June) 1864).
- 1871 Bersham, Wrexham Union Workhouse, widow, 57 (1814), pipemaker (census).
- 1875 Death registered at Wrexham in the first quarter (Jan-Mar), age 60 (1815).

This Thomas Hayes was the son of the pipemaker Thomas Hayes (c1770-1829), who worked at Pen-y-bryn, Wrexham. He was only about 14 when his father died, but the workshop was probably carried on by his mother Anne (q.v.) until Thomas was old enough to run it himself. Thomas is listed as a pipemaker at Pen-y-bryn in his own right in directories

of 1835-1844. In 1845 he married Emma Jones at Gresford, just to the north of Wrexham, who is listed as a dress maker in the 1851 census. Emma died in 1864 and the couple do not appear to have had any children. Thomas had moved to various addresses in Wrexham following his marriage but, by 1871, was in the workhouse. He died in 1875 having apparently spent his whole life in the Wrexham area. Wrexham Museum collection includes an unprovenanced bowl of mid-nineteenth century date with neat parallel flutes on the bowl and the maker's initials TH moulded on the spur, which was almost certainly made by this particular Thomas. The initials are unusually orientated, being placed upright on the spur rather than parallel with the stem, as was normal. This appears to be a local trait that can be traced back to early eighteenth-century pipes, examples of which were probably made by earlier generations of the Hayes family (cf another bowl in Wrexham Museum with the possible initials TH on the spur: 86.247.11.8).

William Hewson (1822-1869: recorded as a pipemaker at Bistre 1841 and probably at Darlington, Co Durham, +1852-1861+)

- 1822 A possible baptism at Christchurch, King Street, Salford (Bible Christian) is the Thomas Hughson, son of John and Mary Ann of 27 Durham Street, Salford, who was born on 18 October 1822 and baptised on 13 January 1823. No occupation for his father is given.
- 1841 The census for Bistre, Buckley, lists one property with two households living in it; Samuel and Elizabeth Eastwood and then Elizabeth Hayes and three other pipemakers, as follows:

	Samuel Eastwood			20	Pipe Maker	Not born in the county				
	Elizabeth Eastwoo	od		25		Born in the county				
	Elizabeth Hayes			50	Pipe Maker	Born in the county				
	Joseph Riley			20	Pipe Maker	Not born in the county				
	William Hewson			20	Pipe Maker	Not born in the county				
	Elizabeth Evans			15	Pipe Maker	Not born in the county				
1861	1861 - The census for Bridge Street, St John's, Darlington includes:									
	William Hewson	Head	Mar	41	Pipe Maker	Lancashire, Salford				
	M II	W7:C-	1.1	2.1	=	T J-				

Leeds Mary Hewson Wife Mar 31 9 Henry Hewson Son Pipe Maker Darlington 5 James Hewson Scholar Darlington Son Dau 2 Ann Hewson Darlington

1869 - The death of a William Hewison (sic), 48 (1821) was registered at Darlington in the first quarter (Jan-Mar) of 1869.

The census returns show that William Hewson was born in Salford, possibly the William Hughson (sic) born there in 1822. By 1841 he was working in Bistre as a pipemaker, almost certainly as a journeyman for Elizabeth Hayes, who died the following year. He has not been located in the 1851 census but must have married Mary from Leeds and been in Darlington, Co Durham, by about 1852 since his son Henry was born there. The family remained in Darlington, since all six of their known children were born there (Henry c1852, James c1856, Ann c1859, Catherine c1862, John c1867 and William c1869; approximate dates of birth from later census returns). William himself probably died in 1869. The family has not been found in 1871 but the 1881 and 1891 returns both show that Mary (given as Hewitson in 1881) remained as a widow in Darlington with various of the children living with her, none of whom appear to have gone on to become pipemakers themselves (Henry was helping as a pipemaker, aged 9, but cannot be traced after 1861).

Charles Edward Hickman (probably a pipemaker at Wrexham from c1899-1903)

1874 - Baptised on 31 May at Hardingstone, Northamptonshire (abode Far Cotton), son of Charles (engine driver) and Mary Elizabeth.

1891 - Age 17 (1874; born Far Cotton, Northants) and living with his family in Hardingstone, Northamptonshire, where he was a railway porter. His father was a railway engine driver.

1899 - Married Alice Hughes (née Lindsay), widow of Thomas Hughes, at St Catherine's Church, Edge Hill, Liverpool, on 28 February.

1901 - Living at 46 Salop Road, Wrexham, with is family:

Charles E. Hickman	Head	30	Glass Merchant (own account)	Hardingstone
Alice Hickman	Wife	33	Glass Merchanic (6 Wir account)	Chirk, Denb.
Hettie Hughes	Daur	9		Wrexham
Charles A. Hickman	Son	5m		Wrexham
Elizabeth Taylor	Serv	20	Cook (Domestic)	Coedpoeth, Denb.

1911 - Living at Rivulet Road, Wrexham, with his family:

Charles E. Hickman Head 41 (2 children, both dead) Bar Fitter (own account) Alice Hickman Wife 43 (4 children, 2 living)

John Lindsay Lydia Edwards Servant Domestic Servant

Father-in-law 75

1944 - Died on 15 November at the War Memorial Hospital, Wrexham. Home address Linsdell, Rivulet Road, Wrexham. Probate 28 April 1945 in Liverpool - Effects £4,609 17s. (National Probate Calendar).

Retired

Charles Edward Hickman is never actually recorded as a pipemaker, but it seems probable that he ran a pipe workshop at Wrexham from around 1899-1903. He was born and grew up in Northamptonshire where his father was a railway engine driver. Charles probably got a job on the railways as a result and, in 1891, aged 17, he was still living at home and working as a railway porter. It is not clear when he moved on from there but the next record found for him is in 1899 when he married Alice Hughes at St Catherine's Church, Edge Hill, Liverpool, on 28 February. Alice was the widow of Thomas Hughes (*q.v.*), who had died young in June 1897, having established an apparently successful pipemaking and glassware business in Wrexham. Charles must have taken over this business (and may have been running it previously for Alice), since he is listed as a glass mechant working on his own account in the 1901 census. More significantly, the 1901 and 1903 *Trades Directory of Wales* both list Thomas Hughes & Co as tobacco pipemakers at 43 Wrexham Fechan, the same name and address that had been used by Thomas for his pipemaking prior to his death in 1897. So, it appears that Charles continued the pipemaking side of the business until at least 1903, when it became the last recorded pipeworks in Wrexham. Both the pipemaking and glassware retailing businesses had closed by 1911, when Charles was recorded as a bar fitter. He died in 1944 leaving a substantial estate of £4,609 17s.

James Hickson (recorded as a pipemaker at Hawarden in 1803)

- 1803 John, son of James Hickson, pipemaker, Hawarden, and Jane (née Groom), his wife, was baptised at Hawarden on 29 May.
- 1838 The death of a James Herbert Hickson was registered at Great Boughton in 1838 and the death of a James Hickson was also registered at Liverpool in 1838.

The only firm reference that has been found to James Hickson is when he was recorded as a pipemaker at Hawarden in 1803 when his son John was baptised. Possible deaths for this individual occur in 1838, but the name was relatively common in Lancashire (less so in Flintshire).

Patrick Higgins (recorded as an earth pipemaker (sanitary?) in Wrexham 1891)

1891 - The census for 5 Picton Terrace, Wrexham, shows it was the shop of a marine store dealer Patrick Flanagan, 38, born Elphin, Ireland, and his wife Mary, 36, born Wicklow. They also had boarders, including:

	Patrick Higgans	Boarder	Mar	30	Pipe Maker (Earth)	Roscommon
	Martha Higgans	Boarder	Mar	25		Chester
	Elizabeth Higgans	Boarder		6	Scholar	Wrexham
	Annie Higgans	Boarder		1		Wrexham
1901 -	The census for 4 Brown	's Court, Wrex	ham, lists:			
	Patrick Higgins	Head	Mar	50	Labourer	Galway
	Martha Higgins	Wife	Mar	41		Chester
	Annie Higgins	Dau		11		Wrexham
	Mary Higgins	Dau		7		Wrexham
	William Higgins	Son		5		Wrexham
	Martha Higgins	Dau		1		Wrexham

In 1881 there was a Patrick Higgins, 25 (1856) from Williamstown in Galway, Ireland, who was a militiaman in the 23rd District Brigade at Wrexham. This may well be the same person who subsequently married Martha and was recorded as a pipemaker in 1891 (with the surname spelt Higgans). His occupation was originally entered as a 'pipe maker' to which 'earth' has subsequently been added. But he was living near some brick makers and so this could still refer to sanitary pipes rather than tobacco pipes. He was a labourer in 1901.

Henry Salisbury Hudson (recorded pipemaking at Wrexham in 1867)

- 1861 Living with his grandmother in Derby, 21 (1840), last maker, born Derby.
- 1862 Henry Salisbury Hudson, bachelor, 22 (1840), fireman, son of Richard Hudson, police officer, married Mary Ann Smith, spinster, 19 (1843), daughter of William Smith, edge tool maker, at Birmingham St Philip on 21 December. Both were residing at Bartholomew Street at the time.
- 1867 A note in *The Wrexham Advertiser* for Saturday 8 June (Issue 738, p4) reads, "ASSAULT On Monday last, William Hayes [?error for John Hayes], pipemaker, was summoned by Henry Salisbury Hudson, one of the same trade, for an assault [see John Hayes above for full details].
- 1871 Widower, 31 (1840) lodging in Chesterfield, where he was a cab driver.
- 1877 Married Sophia Ludlam Bell at Derby in the first quarter of 1877 (Jan-Mar).
- 1891 Living in Derby, 51 (1840), last maker, with wife Sophia (33) and two children.
- 1911 Old age pensioner, 71 (1840), born Derby, living with wife Sophia, 53, charwoman, born Barnsley, at 33 Castle Place, Derby.

The unusual middle name means that this individual can be identified with a high degree of confidence from the records. He was born in Derby in about 1840 and appears to have moved about the country working at various trades during

the 1860s and 1870s. He is only once recorded in Wrexham, when he successfully sued for assault while working as a pipemaker. This is the only time he has been found listed as a pipemaker anywhere and it is likely that he left Wrexham soon after this incident. He would only have been an employee at an existing pipe works, not a master pipemaker himself.

Joseph Hughes (recorded as a pipemaker in Holywell in 1861 and possibly at Wymondham, Norfolk, in 1881)

The 1861 census for Mount Zion, Holywell, includes a lodging house run by widow Susannah Hayes, 62, born in Holywell. The boarders included two pipemakers; James Tarrett, 58 (1803), widower, born Ireland, and Joseph Hughs (sic), 20 (1841), unmarried and from Leeds. Mount Zion was close to Whitford Street, where the John Davies (q.v.) ran a pipe workshop and so these two individuals were probably journeymen working for him. In 1881 a Joseph Hughes, 41 (1840) was an unmarried journeyman pipemaker lodging in Pople Street, Wymondham, Norfolk. His birth place was given as Liverpool, but this could be the same individual having given different birth details.

Samuel Hughes (recorded as an earth pipemaker in Buckley in 1891)

The 1891 census for 1 Nant Mawr Road, Buckley, includes Samuel Hughes, 36, from Buckley. He was initially listed as a pipemaker, to which 'earth' has been added. This is perhaps more likely to signify drain or sanitary pipe production rather than tobacco pipes. Samuel was married to Fanny and they had two children. They were living with Fanny's parents, George Hewitt, horse driver, and his wife Elizabeth.

Thomas Hughes (recorded pipemaking at Chester 1883; Wrexham 1886-1903 and at Ruabon from a stem stamp of *c*1885-1900)

1862 - Approximate date of birth at Sealand, Flintshire (from census).

1871 - The census for 1 Derby House, Watergate Street, Chester lists:

Mary A. Hughes	Head	Widow	39	Cow Keeper	Flints, Sealand				
Annie Hughes	Dau	Unm	17	Assistant	Cheshire, Lache				
William Hughes	Son	Unm	14	Assistant	Cheshire, Lache				
Harriet Hughes	Dau	Unm	10	Scholar	Wirral, Burton				
Thomas Hughes	Son	Unm	8	Scholar	Flints, Sealand				
Edward Hughes	Son	Unm	7	Scholar	Cheshire, Bromborough				
Arthur Hughes	Son	Unm	5	Scholar	Chester				
Elizabeth Hughes	Dau	Unm	3	Scholar	Chester				
Margaret Hughes	Dau	Unm	9mo		Chester				
31 - The census for 9 Middle Court, Trinity, Chester lists:									

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 - Widow Mary Ann Hughes Head 49 Cow Keeper / Milkseller Flints, Sealand Annie Hughes Dau Unm 27 Assistant Housekeeper Cheshire, Lache Thomas Hughes Flints, Sealand Son Unm 19 Commercial Traveller Arthur Hughes Son Unm 15 Office Clerk Chester Unm 15 Domestic Servant Denbigh, Roslott? Ann Randles Servant
- 1883 T. Hughes recorded as a pipemaker at 27 Raymond Street, Chester in a trade directory (Spence 1941/2, 64). He would have been about 21 at the time.
- 1885 Described as a pipe manufacturer (23) when he married Alice Lindsay (18) on the 16 September at Wrexham, their address being given as Penybeyn(?Pen-y-bryn). Alice had been born on April 14 1867 and baptised on 5 May 1867 at Chirk. Her father (John Lindsay) was a policeman in 1867, and inspector of police at Wrexham by 1881. Witnesses were John Hughes and Harriet Hughes.
- 1886 Thomas Hughes, tobacco pipe manufacturer, Bridge House, Wrexham Fechan (Porter's directory, p283).
- 1887 A report on the General Purposes Committee meeting at Wrexham for 13th July 1887 included the following details (Wrexham Advertiser 16 July 1887):

The Sanitary Inspector's Report. Mr Higgins stated that... on June 28th he serves Mr Thomas Hughes, the occupier of the pipe factory at Wrexham Fechan, with a notice to abate the smoke nuisance, and since the expiration of the notice the offence has not been repeated. . . . THE PIPE FACTORY. Reverting to this subject as contained in the inspector's report, Ald. Jno. Jones said that he did not want to press the man too hard, but it seemed to him that it was likely he would get out of both offences - the smoke and the building of the kilns without having submitted the plans to the Corporation. The Town Clerk said he could with the evidence of Mr Higgins prove the smoke nuisance, but he was afraid whether the kilns could be described as "new buildings" under the bye-laws. There was considerable difference of opinions on the matter. Ald. Jno. Jones: Perhaps the man will say that we deal very hard with him, being a pipe maker that he cannot have a smoke. (Laughter.) The Town Clerk said he had drawn out the notice served by the Inspector, and had written to Mr Hughes, who stated in his reply that he had been at the kilns in question for eighteen months, and had built kilns at Chester without submitting plans, and he did not know that it was necessary to submit plans to the council. He (the Town Clerk) recommended that if there was a repetition of the smoke nuisance the Council should take proceedings. The matter then dropped.

- 1888 A "Railway Case" was reported in the Wrexham Advertiser for 15 September (p6). The case is too long to quote in full but concerned Messers. Thomas Hughes and Co. of Wrexham, pipe manufacturers, who were suing the Wrexham, Mold and Connah's Railway Company for £2 5s damages to glass that they transported for him from Liverpool to Wrexham. "The plaintiff, Thos. Hughes, ... said that he was a pipemaker and glass dealer, living in Wrexham. He was in the habit of getting glass from Germany. He had a consignment sent him in June, which was sent via Grimsby to Liverpool. When the goods arrived at Liverpool, he and his man went to examine them. Witness found that the goods were intact. ... The goods were sent from Antwerp to Grimsby ... he claimed for the glass (tumblers) at the rate of 4s per dozen. He sold them at from 5s to 6s 6d per dozen." From this case, it is clear that Hughes was running quite a large and complex business, which involved importing and selling glass as well as the manufacture of pipes.
- 1889 Thomas Hughes & Co, tobacco pipemaker, 43 Wrexham Fechan (Sutton's directory, p252).
- 1891 The census for 43 Wrexham Fechan comprises:

Thomas Hughes	Head	Mar	29 Glass Merchant Earth I	Flints, Sealand
Alice Hughes	Wife	Mar	24	Denbigh, Chirk
F. M. Hughes	dau	single	4	Wrexham
E. A. Hughes	son	single	11 months	Wrexham
S. L. Lindsay	sister-in-law	single	12	Wrexham

- 1892 T. Hughes, tobacco pipe (clay) manufacturer, Wrexham Fechan (Woodall Minshall directory, p81).
- 1897 Thomas Hughes, 35 (1862) died at Wrexham and was buried 17 June in Wrexham Cemetery (Grave 2783, Burial 3197).
- 1899 Thomas's widow Alice remarries to Charles Edward Hickman at St Catherine's Church, Edge Hill, Liverpool on 28 February.
- 1901 Thomas Hughes & Co, tobacco pipemaker, 43 Wrexham Fechan (Trades Directory of Wales, p83).
- 1903 Thomas Hughes & Co, tobacco pipemaker, 43 Wrexham Fechan (Trades Directory of Wales, p79).

Thomas Hughes (no relation of Thomas David Hughes of Penycae, Ruabon) was born in Sealand, Flintshire, in about 1862. His father was John Hughes, born c1828 in Mold and, in 1861, a farmer employing 3 men and a boy at Burton on the Wirral. The family moved to Chester when Thomas was a toddler and his father died when he was about eight, leaving his widowed mother Mary Ann to bring up a large family while working as a cow keeper and milk seller. Thomas did not have a family background in the pipemaking trade and was listed as a commercial traveller in 1881, aged 19. By 1883, however, he had constructed pipe kilns in Chester and was listed as a pipemaker in a local trade directory. In 1885 he married in Wrexham and, in 1886, was living in Wrexham Fechan where he built new kilns. Despite the 1887 complaints about the smoke, the business clearly continued and flourished, since he is styled '& Co' from 1888 and was also importing and selling glassware. The business continued to be listed in directories at 43 Wrexham Fechan until at least 1903, even though Thomas himself died during the 1890s - almost certainly the burial recorded on 17 June 1897. His widow remarried to Charles Edward Hickman in 1899. The wedding itself was in Liverpool, but the 1901 census shows that Alice continued to live in Wrexham, where Charles was described as a glass merchant (presumably having taken over Thomas's glassware business and, if the directory entries are accurate, his pipemaking activities as well). Charles was born in Hardingstone, Northamptonshire, where he was living with his parents and a railway porter in 1891. He must have subsequently moved to Wrexham to have met Alice and may well have worked for Thomas in the business before his death. In 1911 Charles and Alice were still living in Wrexham, but Charles described himself as a bar fitter, making it clear that the glass retail and pipemaking business had ended; the 1903 directory entry is the last known reference to pipemaking in Wrexham itself. It appears to have been Thomas who was the dynamic entrepreneur, building pipe kilns; branching out into glass retail and styling his business '& Co'. He may also have had business interests in Ruabon at some point, since a pipe stem marked 'T? HUGHES & Co / RUABON' has been recorded from Chester (Rutter 1980/81, Fig. 22.5). This mark was originally published as possibly reading I? Hughes (the top of the letter being poorly impressed), but 'T' seems much more likely given the uncommon '& Co' ending and the fact that Thomas is recorded as a pipemaker at nearby Wrexham at the right period. This stem stamp is likely to date from somewhere around 1885-1900.

Thomas David Hughes (recorded as a pipemaker (sanitary?) at Penycae, 1881-1891)

- c1845 Born in Merionethshire at either Cynwyd or Gwyddelwern (neighbouring settlements, both of which are given as his birth place in later census returns).
- 1861 Listed as a brick maker, 16 (1845; born Merioneth), living at Cefn Mawr, Ruabon, with his widowed mother Mary and two older brothers (Robert and William).
- 1871 Listed as a brick maker, 26 (1845; born Cynwyd), living at Cefn Mawr, Ruabon, with his widowed mother Mary and two older brothers (Robert and William).
- 1881 Thomas David Hughes, 36 (1845), listed as a married pipemaker, living at Penycae, Ruabon (born Cynwyd). His occupation has had 'Toba' added in front of it after it was originally written, showing that someone at the time considered that he was a tobacco pipemaker. He was married to Catherine, 30, also from Cynwyd, and they had a daughter, Julia, 2, born at Penycae.
- 1891 Listed at Penycae, Ruabon, as a pipemaker, 46 (1845; born Merioneth) with wife Catherine (39) and daughter Julia

(12).

- 1901 Listed at 11 New House, Penycae, widower, 55 (1846; born Gwyddelwern), sanitary pipemaker (worker). Living with him was daughter Julia (22), a student mistress.
- 1911 Living at 44(?) Chapel Street, Penycae, 66 (1845; born Cynwyd), labourer at a brick works. He was married to Emma, 62, who had previously had three children from a previous marriage.
- 1939 Thomas Hughes, Church Street, Penycae, buried 3 January at Penycae.

While Thomas's life is well documented, there is some doubt over his actual occupation. He was certainly working as a brick maker in 1861-71, and at a brick works in 1911. The 1881 census entry has been changed from 'pipe maker' to 'tobacco pipe maker', but this could have been a later error by the enumerator. He was again a 'pipe maker' in 1891 but specifically a 'sanitary pipe maker' in 1901. This suggests that he was probably a sanitary pipe maker at a brick works from at least 1881-1901 and that the insertion of 'tobacco' to the 1881 entry was an error, particularly since the Ruabon area had a major brick, tile and sanitary pipe making industry at this period. The only slight doubt is raised by the occurrence of a pipe stem with the stamped mark 'T? HUGHES & Co / RUABON' that has been recorded from Chester (Rutter 1980/81, Fig.22.5), which shows that tobacco pipes were also made in the Ruabon area. The situation is further complicated by another Thomas Hughes (q.v.; no relation of Thomas David Hughes), who is documented as a tobacco pipemaker in Wrexham, where he traded as 'Thomas Hughes & Co' until at least 1903. On balance, it seems more likely that the marked stem represents some sort of venture by the more entrepreneurial Thomas Hughes from Wrexham, and that the Thomas David Hughes from Ruabon/Penycae only ever worked as an employee at a brick works, where he specialised in making sanitary pipes.

Philip Hullah (recorded as a pipemaker at Hawarden in 1841, at Newport in 1861-1862 and in Sheffield from 1871-1891)

- 1841 Age 20 (1821), pipemaker, listed at Hawarden where he was living with Jeremiah Hayes, for whom he was presumably working as a journeyman. He was not born in the county.
- 1861 The census for 13 Marshes Road, Newport St Woollos, Monmouthshire includes:

Philip Hullah	Head	Mar	44	pipe maker	Rippon
Elizabeth Hullah	Wife	Mar	38		Sheffield
Wilfred W. Hullah	Son	Um	5	at home	Sheffield
William Apps	Boarder	Um	40	pipe maker	Rye, Sussex

- 1862 Listed in Morris's directory as a tobacco pipemaker in Marshes Road, Newport (Knight 1980, 79).
- 1871 The census for 53 Snow Lane, St Philip's, Sheffield includes:

Philip Hullah	Head	Mar	57	tobacco pipe maker	Rippon
Eliza Hullah	Wife	Mar	47		Sheffield
Wilfred Wolstenholme	Nenhew	Unm	16	Gas Fitter	Sheffield

1881 - The census for 2 in 2 Ct, Robert Street, Nether Hallam, Sheffield includes:

Wilfred Wolstenholme	Head	Mar	24	Plumber	Sheffield
Anne Wolstenholme	Wife	Mar	20	File Cutter	Sheffield
Emma Wolstenholme	Dau		1		Sheffield
Philip Hullah	Lodger	Widwr	62	Tobacco Pipe Maker	Rippon

- 1882 Philip Hullah married Mary Ann Ward at Sheffield, Q3 (Marriage index; Jul-Sept)
- 1891 The census for 1 Grammer St, Nether Hallam, Sheffield comprises:

Philip Hullah	Head	M	75	Tobacco Pipe Maker	Rippon
Mary Ann Hullah	Wife	M	64	Spring Knife Maker	Sheffield

- 1901- Philip Hullah, married, 86 (1815), general labourer, born Ripon was an inmate in West Brightside District Workshouse, Sheffield.
- 1902 Death of Philip Hullah, aged 87 (1815) registered at Sheffield, Q2 (Apr-Jun)

Philip Hullah was born in Ripon, Yorkshire, around 1815-20 and, by 1841, aged about 20, he was a pipemaker living with Jeremiah Hayes in Hawarden, for whom he was presumably working as a journeyman. He has not been traced in 1851 but, by 1861, he was pipe making in Newport, South Wales, where he was listed the following year in a trade directory. From 1871-1891 he is listed in census returns as a pipemaker in Sheffield, but he was a general labourer in a workhouse by 1901. He died in 1902, aged 87. He clearly moved about the country during his career and may well have spent much of it working as a journeyman pipemaker for others.

George Jones (recorded as a pipemaker in Chester 1812-1832 and at Bistre 1851-1861)

- 1812-1832 George Jones recorded as a pipemaker in Chester, where he had at least six children with his wife, Margaret, before her death in 1832 (Rutter and Davey 1980, 243).
- 1851 Widower, 62 (1789), Pipemaker Journeyman, born Chester but living with/working for Thomas Boyde (*q.v.*) at Nant Mawr, Bistre (described as a 'servant').
- 1861 Widower, 74 (1787), Tobacco Pipemaker, born Chester, lodging with (and presumably working for) Thomas

Boyde (q.v.) at Bistre, Mold.

George Jones is probably the individual recorded working in Chester before moving to work as a journeyman for Thomas Boyde at Bistre after his wife died.

William Jones (recorded as a pipemaker at Bistre in 1881)

1881 - Lane End, Bistre, pipemaker, 42 (1839) born Bradford. He was married to Jane and living with an unmarried brother (?in-law), Thomas Hall. William had originally been simply described as a 'pipe maker', but the entry has been changed to read 'clay pipe maker earthenware'. This may refer to drain pipes rather than tobacco pipes, especially since Cropper (1906, 44) said that tobacco pipe making in Buckley had ended more than 50 years previously (although Thomas Boyde, *q.v.*, was working until at least 1871).

Joseph Monnax (recorded as a pipemaker at Hawarden in 1748)

1748 - Will administered at Hawarden (Bentley, Davey and Harrison 1980, 273). The original documents are held at the National Library of Wales.

Peter Morris (recorded as a pipemaker at Bistre before 1856)

- 1827 Peter, son of Peter Morris, wire worker, Bistre, and Sarah, baptised at Mold on 1 December.
- 1832 Maria, daughter of Peter Morris, wire worker, Bistre, and Sarah, baptised at Mold on 18 November.
- 1827 Peter, son of Peter Morris, wire worker, Bistre, and Sarah, baptised at Mold on 1 December.
- 1837 Peter Morris buried at Mold, age 9 (1828) on 15 May.
- 1839 Mary, daughter of Peter Morris, wire worker, Bistre, and Sarah, baptised at Mold on 5 November.
- 1840 Peter Morris buried at Mold, age 2 1/2 (1837) on 10 March.
- 1841 The census for Bistre, Buckley, lists Peter Morris as 40 (1801), a wire worker not born in the county and his family: Sarah, 45 (1796), not born in the county and three children, who all were; Ann, 11 (1830), Maria 8 (1833) and Mary 1 (1840). Living next door was a household with five pipemakers, including Samuel Eastwood and Elizabeth Hayes (*q.v.*).
- 1848 Peter Morris, Bistre, 53 (1795) buried at Mold (no occupation given) 7 December.

In 1906 (p44) Cropper says:

The last pipe works at Buckley was closed over 50 years ago [i.e., before 1856]. This was situated a stone's throw from Bistre Church, and was owned by a Peter Morris. Some houses in the vicinity are still known as Pipe Clay Row. In this case the clay came from the South of England, where most of it is procured for manufacture in the pipe-making trade to-day.

Peter Morris of Bistre was buried in 1848, aged 53, but all the references found to him (above) list his trade as a wire worker. He was, however, living next door to a pipe making household in 1841 (census) which is likely to have been where the workshop was located, perhaps being run by Elizabeth Hayes. Furthermore, by 1851 Peter's widow, Sarah, has married a young pipemaker (Thomas Boyde, q.v.) and was living in pipemaking household at Nant Mawr, which was probably an alternative name for the same workshop as that recorded next door to Peter Morris at Bistre in 1841. Perhaps local memories in 1906 confused the ownership of this works with Peter Morris, or perhaps it became associated with him after his widow moved in. Alternatively, perhaps Peter Morris had two occupations (as was often the case) or actually owned the pipe workshop which was simply rented to tenants. What is clear is that there was some sort of association between the Morris family and the pipemaking workshop and that this workshop subsequently continued working into the 1860s (see Thomas Boyde), which is rather later than suggest by Cropper.

Edward Parry (recorded as a pipemaker (sanitary?) at Ruabon (Rhosllanerchrugog) in 1881)

The 1881 census for Pant, Rhosllanerchrugog, Ruabon, lists Edward Parry, 43 (1838), born Selattyn, Shropshire, as a 'pipe maker', to which 'Tob' has later been added. He was living with his wife, Harriet, 41, and three children, Joseph 14, Mary Ellen 9 and Elizabeth Ann, 7. This was a brick, tile and drain pipe producing area and so the later designation of 'tobacco' may be an error by the enumerator.

Richard Prince (recorded as a pipemaker in Wrexham +1685-1715+)

The following references to Richard Prince have been found in the Wrexham parish registers, which were accessed as scanned images of the originals on 'Findmypast'. All references to the surname Prince indexed between 1650 and 1750 were checked and all the references to Richard extracted as follows:

- 1679 Sarah, wife of Richard Prince, buried 19 October.
- 1680 Alice, daughter of Richard Prince of Abbott land, baptised 27 December.
- 1681 Humphrey, son of Richard Prince of Wrexham Abbot, buried on 11 December.

Halifax

- 1682 Jane, wife of Richard Prince, Wrexham Abbot, buried 16 November.
- 1683 Richard Prince married Margaret Evans on 10 April.
- 1685 Margaret, wife of Richard Prynce, pipemaker, buried 12 September.
- 1695 Rondle (*sic*), son of Richard Prince, pipemaker of Wrexham Abbot, born 23 and baptised 25 August [Randle Prince was later given as a labourer when he baptised a daughter, Mary, on 31 May 1730].
- 1711 Richard, son of Richard Prince, pipemaker of Wrexham Abbot, buried on 4 May.
- 1712 Elizabeth, daughter of Richard Prince, pipemaker, born and baptised on 24 August.
- 1715 John, son of Richard Prince, pipemaker of Wrexham Abbot, born on 6 and baptised on 14 August.

These show that a pipemaker of this name operated in Wrexham from at least 1685-1715. The earlier references from 1679 onwards are also likely to be the same person, in which case he is likely to have been pipemaking from at least the 1670s. The only caveat is that at least three different wives are represented during this period; Sarah (died 1679), Jane (died 1682), Margaret (died 1685) and the unnamed mother(s) of children baptised between 1695 and 1715. While this is certainly possible, another alternative is that there were two pipemakers of this name, one baptising children from 1680-1695 and the other from 1711-1715. The son Randle, baptised in 1695, was recorded as a labourer in 1730, which suggests that he did not follow his father's trade and become a pipemaker.

Joseph Riley (recorded as a pipemaker at Bistre 1841 and at Keighley, West Yorkshire, 1851-1881)

1818 - Joseph Riley, son of Abraham and Elizabeth, Dresser, Halifax, was baptised at Halifax on 4 May.

1841 - The census for Bistre, Buckley, lists one property with two households living in it; Samuel and Elizabeth Eastwood and then Elizabeth Hayes and three other pipemakers, as follows:

	and then Elizabeth Hay	es and three o	ther pipem	akers, a	s follows:	
	Samuel Eastwood	20	Pipe Mal	er	Not born in the	county
	Elizabeth Eastwood	25			Born in the coun	ıty
	Elizabeth Hayes	50	Pipe Mal	ter	Born in the coun	ıty
	Joseph Riley	20	Pipe Mal	ter	Not born in the	county
	William Hewson	20	Pipe Mal	ter	Not born in the	county
	Elizabeth Evans	15	Pipe Mal	ter	Not born in the	county
1851 -	The census for Lowbrid	dge, Keighley,	West York	shire, li	ists:	
	Joseph Riley	Head	Mar	32	Tobacco Pipe Maker Journeyman	Halifax
	Harriet Riley	Wife	Mar	28	At Home	Keighley
	Abraham Riley	Son	U	1	At Home	Keighley
	David Riley	Son	U	5mo	At Home	Keighley
1861 -	The census for Coney I	ane Keighley	West Yor	kshire	lists:	

1861 - The census for Cor	iey Lane, Keigh	ley, West Y	orkshire	, lists:
Joseph Riley	Head	Mar	41	Tobacco Pipe Maker

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1 2				1	
Harriet Riley	Wife	Mar	37	Schoolmistress	Keighley
Tom Riley	Son		9	Scholar	Keighley
Benjamin Riley	Son		3	Scholar	Keighley
John Cringle	Boarder	Un	24	Tobacco Pipe Maker	Carlisle

1871 - The census for Wellington Place, Keighley, West Yorkshire, lists:

		0	0 5		,	
J	Joseph Riley	Head	Mar	53	Tobacco Pipe Maker	Halifax
]	Harriet Riley	Wife	Mar	48		Keighley
]	Benjamin Riley	Son		12	Halftime in Mill (scholar)	Keighley
(Georgianna King	Boarder	Unm	28	Worsted Weaver	Leeds

1881 - The census for 10 Spencer Street, Keighley, West Yorkshire, lists:

Joseph Riley	Head	Mar	63	Clay Tobacco Pipe Maker	Halifax
Grace Emmott?	Visitor	Mar	70		Keighley
Benjamin Riley	Son	Unm	22	Basket Maker	Keighley

1885 - The death of Joseph Riley, 67 (1818) was registered in Keighley Q4 (Oct-Dec) 1885.

Joseph Riley was baptised at Halifax in 1818, the son of Abraham, a dresser, and Elizabeth. By 1841 he had become a pipemaker and moved to Bistre, where he was probably working as a journeyman for Elizabeth Hayes. Elizabeth died in 1842 and, by 1851, Joseph had moved on to Keighley in West Yorkshire and married to Harriet, who came from there. He was working as a journeymen pipemaker in 1851 but settled in Keighley where he may well have set up his own workshop - he had another pipemaker living with him in 1861. He is listed as a pipemaker in 1871 and 1881 and died in the last quarter of 1885, age 67.

Joseph Rogers (recorded as a pipemaker (drain?) at Ewloe in 1881)

Joseph Rogers, 15, born Golftyn, Flintshire, is listed as a 'pipe maker' at Ewloe Wood in the 1881 census. He was living with his family, headed by William Rogers, 55, a railway signalman. Cropper (1906, 44) said that pipe making in Buckley (which this neighbours) had ended more than 50 years previously and so this is more likely to be drain pipe rather than tobacco pipe production.

Samuel Rogers (recorded as a pipemaker (drain?) at Ewloe in 1881)

Samuel Rogers, 25, born Hawarden, Flintshire, is listed as a 'pipe maker' at The Mountain, Ewloe Town in the 1881 census. He was living with his widowed mother, Mary Rogers, 65, a housekeeper. Cropper (1906, 44) said that pipe making in Buckley (which this neighbours) had ended more than 50 years previously and so this is more likely to be drain pipe rather than tobacco pipe production.

William Rogers (recorded as a pipemaker in Wrexham +1874-1876+)

1861 - The census for Rhos Ddu, Stansty, Wrexham, lists:

William Rogers	Head	Mar	45	Shoe Maker Master	Denbigh, Gresford
Elizabeth Rogers	Wife	Mar	34	Shoe Maker Wife	Denbigh, Eyton
Alice Rogers	Daughter		4	Shoe Maker Dau	Denbigh, Wrexham
Arthur Rogers	Son		2	Shoe Maker Son	Denbigh, Wrexham
Tom Mather	Lodger	Mar	34	Shoe Maker J.	Lancs, Duckenfield
Edwin Jones	Lodger	Um	21	Shoe Maker J.	Denbigh, Wrexham

- 1870 Possible foundation date for tobacconist's business (cf 1893 below).
- 1871 The census for 2 Lambpit Street, Wrexham, lists:

William Rogers	Head	Mar	56	Shoemaker Master	Denbigh, Gresford
Elizabeth Rogers	Wife	Mar	44		Flints, Eyton
Alice Rogers	Daughter	Unm	14	Scholar	Denbigh, Wrexham
William Rowland	Grandson		6		Lancs, Liverpool
Mary Ann Blackwell	Serv	Unm	16	General Dom Serv	Denbigh, Minera

- 1874 Listed as a tobacconist and pipemaker, 47 Hope Street (Worrall's directory, p144).
- 1876 Listed as a tobacconist and pipemaker, 47 Hope Street (Cassey's directory, p99).
- 1881 Listed as a shoemaker and tobacconist, 47 Hope Street (Crocker's directory, p82).
- 1881 The census for 47 Hope Street, Wrexham, lists:

William Rogers	Head	Mar	65	Tobacconist	Denbigh, Gwersyllt
Elizabeth Rogers	Wife	Mar	55		Denbigh, Bangor
Alice Jones	Daughter	Mar	24		Denbigh, Wrexham
Edward D. Jones	Son-in-law	Mar	29	Watchmaker	Lancs, Ashton in the Willow
William N. Rowland	Grandson		16	Coach Painter App	Lancs, Liverpool
Ernest G. Rowland	Grandson		15m	0	Denbigh, Wrexham

- 1883 Listed as a tobacconist, 8 Church Street (Slater's directory, p282).
- 1893 Advert by E. Rogers (female) for a tobacconist's business at 9 Church Street, established 1870. This claims to be the oldest cigar store in Wrexham, selling cigarettes and tobacco as well as, "silver mounted briar and meerschaum pipes, cigar and cigarette holders, cases, pouches, &c." as well as "a good selection of silver mounted walking sticks".

William Rogers was born in about 1816 at or near Gresford on the outskirts of Wrexham. By 1861 he had become a master shoemaker employing others and he appears to have continued this trade for the rest of his life. At the same time, he also established a tobacconist's shop, a later advert claiming a foundation date of 1870. Local trade directories for 1874 and 1876 list him as a tobacconist and pipemaker at 47 Hope Street, indicating that he also made pipes during the 1870s, while an 1881 listing describes him as a shoemaker and tobacconist. By 1883 the tobacconists shop had moved to Church Street and there is no later mention of pipemaking. William seems likely to have died by 1893, when a female identified as E. Rogers (presumably his wife Elizabeth) is listed as a tobacconist in Church Street. She claims to have the oldest cigar store in Wrexham and was clearly selling a range of tobacco related items as well. William may only have made pipes for a period during the 1870s and then only as one of a range of activities that he was running. It is not known what sort of pipes he was making.

Robert (recorded as a pipemaker in Wrexham +1685)

The following reference has been noted in the Wrexham parish registers: -

1685 - "Robert the pipe maker of Wrexham Buryd ye 20th of January 1684" (1684/5).

Although 'Robert' would normally be regarded as a Christian name, it also occurs in the Wrexham resisters around this time as a surname. This makes it hard to know which is being referred to in this entry. It is, however, the only reference to a pipemaker with either the Christian name or surname Robert currently known and so indicates the presence of a pipemaker with this name in the town prior to 1685.

Mary Russell (recorded as a pipemaker in Wrexham in 1721 (ob))

- 1672 Mary Jackson, daughter of Richard and Dorithy [sic] Jackson, baptised at Wem on 9 May.
- 1691 William Russell and Mary Jaxson were married at Wem on 25 April.
- 1692 William Russell, pipemaker, and Mary, his wife, baptised a daughter Mary on 4 February 1691/2 at Wem.
- 1695 Martha, daughter of William Russell, pipemaker, Wrexham Regis, buried 22 August.

- 1699 Solomon, son of William Russoll (sic), pipemaker, Wrexham Abbot, buried 7 Feb 1698/9.
- 1713 Mary, daughter of William Russell, pipemaker, of ye green, buried 11 May (Wrexham PR).
- 1721 Mary Russell, widow, pipemaker of Wrexham Abbot, buried 10 October.

A Mary Russell is known to have been a pipemaker in her own right, since a full name mark reading MARY/RVS/SELL has been found at Wrexham on a Broseley Type 5 bowl of *c*1680-1730 (Higgins 2016). The name Mary Russell was quite common in seventeenth century Shropshire, but the references from the Wem and Wrexham parish registers extracted above hang together to suggest that this particular Mary came from Wem (where she was baptised in 1672 and married in 1691) and that her husband was a pipemaker called William, with whom she presumably worked. William worked as a pipemaker at Wem during the early 1690s and then seems to have moved to Wrexham where William, and then his widow Mary, are recorded as pipemakers between 1695 and 1721. They had a daughter Mary, who supports this suggested move, if she is the same individual who was baptised at Wem in 1692 and buried in Wrexham in 1713. There was also a pipemaker called Richard Russell in Wrexham (*q.v.*), perhaps William's father or brother and another pipemaker called William, perhaps a son.

Richard Russell (recorded as a pipemaker in Wrexham +1684-1707(ob))

- 1684 Edward, son of Richard Russell, pipemaker, buried 9 September.
- 1685 Jane, wife of Richard Russell, pipemaker, Wrexham Abbot, buried 10 August.
- 1686 Richard Russell of Wrexham, pipe-maker, and his wife Jane are mentioned in a deed of covenant (details below).
- 1688 Edward, son of Richard Russell, pipemaker, Wrexham Abbot, buried 12 December.
- 1689 James, son of Richard Russell, Wrexham Abbot, buried 8 February 1688/9.
- 1689 John, son of Richard Russell, Wrexham Abbot, buried 7 April.
- 1691 Jerum (sic), son of Richard Russell, pipemaker, buried 23 April.
- 1707 Richard Russell, pipemaker, Wrexham Abbot, buried 3 May.

The above references to Richard Russell have almost all been found in the Wrexham parish registers, which were accessed as scanned images of the originals on 'Findmypast'. All references to the surname Russell indexed between 1650 and 1750 were checked and the entries relating to an individual named Richard extracted (as listed above). There were also two pipemakers called William Russell in Wrexham, perhaps Richard's brother and/or son/nephew, and a Mary Russell, who was probably married to one of them. Richard must have married again after his first wife Jane was buried in 1685, since baptisms resume in 1688 and so it is possible that the Mary Russell buried in 1721 was his second wife, although she fits better with the first William, with whom she has been placed (*q.v.*). There is also a 1686 document that names Richard's wife as Jane, but the original of this has not been checked to see if this is a posthumous reference to his first wife, the name of his second wife or if there were two pipemakers called Richard Russell who both happened to have wives of the same name. The document is a copy deed of covenant to levy a fine dated 1 May 1686 in Flintshire Record Office (D/KY/22). The catalogue entry reads, "(i) Richard Russell of Wrexham, co. Denbigh, pipe-maker, Jane, his wife, and Margaret Griffith of Trymley, co. Flint, spinster. (ii) Sir Thomas Powell of Horsley, co. Denbigh, Baronet. On a messuage and lands at Cros y Stryt, Gwersyllt, co. Denbigh."

William Russell I and II (recorded as pipemakers in Wem, Shropshire, in 1692 and at Wrexham +1695-1713+)

- 1672 Mary Jackson, daughter of Richard and Dorithy (sic) Jackson, baptised at Wem on 9 May.
- 1691 William Russell and Mary Jaxson (sic) were married at Wem on 25 April.
- 1692 William Russell, pipemaker, and Mary, his wife, baptised a daughter Mary on 4 February 1691/2 at Wem.
- 1695 Martha, daughter of William Russell, pipemaker, Wrexham Regis, buried 22 August.
- 1699 Solomon, son of William Russoll (sic), pipemaker, Wrexham Abbot, buried 7 Feb 1698/9.
- 1703 William Russell, pipemaker of Wrexham Regis, buried 29 October.
- 1713 Mary, daughter of William Russell, pipemaker, of ye green, buried 11 May (Wrexham PR).
- 1716 Jane, wife of Russell (sic), pipemaker, Wrexham Abbot, buried 7 January 1715/6.
- 1721 Mary Russell, widow, pipemaker of Wrexham Abbot, buried 10 October.

The Russell family appears to have had links to Wem in Shropshire and to have included two pipemakers named William. The above references to individuals of this name have been found in the Wem and Wrexham parish registers, which were accessed as scanned images of the originals on 'Findmypast'. All references to the surname Russell indexed at Wrexham between 1650 and 1750 were checked and any references to William extracted. In contrast, the name was quite common in seventeenth century Shropshire, and so only those that appear to belong to a single family from Wem have been extracted.

The references hang together to suggest that a pipemaker called William Russell with a wife called Mary (possibly born 1672) worked at Wem, Shropshire, during the early 1690s before moving to Wrexham where William, and then his widow Mary, are recorded as pipemakers between 1695 and 1721. They also had a daughter Mary, who potentially supports this suggested move, since she could be the individual who was baptised at in Wem in 1692 and buried in Wrexham in 1713. The only problem is that the 1713 burial implies that Mary's father was still alive at the time, whereas a William Russell, pipemaker, had been buried at Wrexham ten years earlier in 1703. One possibility would be that this was William's father and that William

Jr had only been in Wem temporarily, returning to Wrexham to work with his father and Richard Russell (possibly an older brother). He could then have died between 1713 and 1721, when Mary was described as a widow. The situation is further complicated by the burial of Jane, wife of the pipemaker 'Russell', in 1716. The pipemaker's Christian name is not given, but the second William would be the most likely, in which case perhaps he was another son of Richard, and the 1703 burial relates to the pipemaker who had moved from Wem. This would certainly have given a longer working period for widow Mary, who is also known from finds of marked pipes. While the exact relationship between all the members of the Russell family remains unclear, it does appear that there were two members of the family named William who were working as pipemakers in Wrexham between at least 1695 and 1713.

Edward Sharlock (recorded as a pipemaker in Holywell in 1868)

An entry in the *Flintshire Observer, Mining Journal and General Advertiser*... for 30 October 1868 records, under 'Holywell Police Court', that, on 27 October, "Edward Sharlock, 24, pipemaker, native of Dublin, charged by P.C. Gaffney with tearing his clothes whilst an inmate of the night asylum at the Workhouse, was committed to prison for one month with hard labour."

William Smith (recorded as a pipemaker in Great Yarmouth 1851-1861, Brighton c1865, Chester in 1871, Stockport c1874 and in Wrexham c1877-1899)

c1874	f and in $\hat{ m Wrexham}$ c 187 $^{\prime}$	7-1899)			, ,	, ,
1851	- The census for Row 25,	Great Yarmou	uth include	s the fo	ollowing household:	
	Edward Smith	Head	Mar	50	Brewers Servant	Norwich
	Joannah Smith	Wife	Mar	47	Brewers Servant Wife	Norwich
	Caroline Smith	Dau	Un	28	Silk Weaver	Norwich
	Martha Smith	Dau	Un	18	Shoe Binder	Norwich
	William Smith	Son		13	Pipe Maker	Yarmouth
	Edward Smith	Son		10	Errand Boy	Yarmouth
	Abraham Smith	Son		6	Scholar	Yarmouth
	Rachael Smith	Dau		3	Scholar	Yarmouth
	Isaac Smith	Son		1mo		Yarmouth
1861	- The census for Row 10'	7, Great Yarmo	outh includ	les the	following household:	
	Edward Smith	Head	Mar	60	Ironmonger's Porter (deaf)	Norwich
	Joannah Smith	Wife	Mar	56		Norwich
	Caroline Brooks	Dau	Mar	37	Silk Weaver Factory	Norwich
	William Smith	Son	Un	22	Pipe Maker	Yarmouth
	Edward Smith	Son	Un	20	Buclan? & Labourer	Yarmouth
	Rachael Smith	Dau		13	Shop Girl	Yarmouth
	Isaac Smith	Son		10	Errand Boy	Yarmouth
1871	- The census for Cheswo	rths Court, Fo	regate Stre	et, Che	ester, includes the following househo	old:
	William Smith	Head	Mar	34	Pipe Maker	Norwich
	Maria Smith	Wife	Mar	30		Great Yarmouth
	William Smith	Son		11	Scholar	Great Yarmouth
	Annie Smith	Dau		6		Sussex
	Hannah Smith	Dau		5mo		Chester
1881	- The census for 4 Abbot	Street, Wrexh	am, includ	es the	following two households:	
	Edward Williams	Lodger	Unm	60	Tob Pipe Maker	Oswestry
	William Smith	Head	Mar	40	Tob Pipe Maker	Norwich
	Maria Smith	Wife	Mar	39	Wife	Great Yarmouth
	William Smith	Son	Unm	21	Labourer	Great Yarmouth
	Annie Smith	Dau	Unm	16		Brighton
	Hannah Smith	Dau	Unm	10	Scholar	Chester
	James Smith	Son	Unm	7	Scholar	Stockport
	Sarah Smith	Dau	Unm	4		Wrexham
	Alice Smith	Dau	Unm	2		Wrexham
1886	- William Smith listed as	a tobacco pipe	e manufact	urer, 2	5 Pen-y-bryn (Porter's directory, p2	83)

- 1886 William Smith listed as a tobacco pipe manufacturer, 25 Pen-y-bryn (Porter's directory, p283)
- 1889 William Smith listed as a tobacco pipemaker, Pentrefelin (Sutton's directory, p252)
- 1891 The census for 17 Pierce Square, Wrexham, includes the following household:

William Smith	Head	Mar	52	Tobacco Pipe Maker	Norfolk
Mary Smith	Wife	Mar	51		Yarmouth
John Smith	Son	S	18	Labourer	Stockport
Sarah E. Smith	Dau		14		Wrexham
Alice Smith	Dau		12	Scholar	Wrexham
Edward Williams	Lodger	S	62		Oswestry

1892 - William Smith listed as a tobacco pipe (clay) manufacturer, Brewery Place (Woodall, Minshall directory, p81)

1896 - Death of a William Smith registered in Wrexham, Q4 (Oct-Dec), age 60 (1836)

1899 - Death of a William Smith registered in Wrexham, Q3 (Jul-Sept), age 60 (1839)

William Smith was born in about 1838 and, when married, consistently gave his birth place as Norwich, which is where his parents had been born and lived until some point during the 1830s, when they moved the family to Great Yarmouth. When he was growing up with them, however, they consistently gave his birth place as Yarmouth. No other members of his family were pipemakers, but William must have been apprenticed into the trade as he grew up in Yarmouth, being listed as a pipemaker in 1851, age just 13. He married Maria in about 1861 and, from the birth places given for his children in the 1881 census, then appears to have worked a journeyman pipemaker for a number of years. He was in Great Yarmouth c1861, Brighton c1865, Chester c1871, Stockport c1874 and Wrexham from c1877 onwards. He appears to have set up his own business in Wrexham, being listed in his own right in three local trade directories between 1886 and 1892 - although at a different address each time, suggesting a somewhat transient existence. Edward Williams from Oswestry was living with the family in both 1881 and 1891, and was probably working for Smith as a pipemaker. William died during the 1890s, since Maria is listed as a widow in the 1901 census, when she was living at 11 Bridge Street, Wrexham, with unmarried daughter Alice, 21, a laundress, and F. Hobbs, 28, a visiting watchmaker born at Leamington in Warwickshire. The deaths of two William Smiths' of about the right age were registered in Wrexham during the 1890s, that in the last quarter of 1899 probably being the best match for the pipemaker William, age 60. He is likely to have remained a pipemaker throughout the 1890s and was one of the last pipemakers in Wrexham. There are two unprovenanced bowls in Wrexham Museum collection that can be attributed to this maker. These have the initials RAOB (Royal Antediluvian Order of Buffaloes) and buffalo horns on the bowl facing the smoker, and the initials WS moulded on the spur. The mould appears to have been altered over time, since one example has moulded milling around the rim while the other does not. Another oddity is that the initials on the spur have been altered at some point. The initial 'W' is in relief, and as would be expected, but the 'S' has been altered in the mould. A small square has been cut out of the mould where a previous initial was, and the 'S' inserted so that it appears on a slightly raised square 'platform', but with the letter incuse rather than in relief, which is very unusual. The initials also have a very unusual orientation, being placed upright rather than parallel to the stem. This orientation is shared with moulded marks used from the early eighteenth century onwards by the Hayes family appears to have been a distinctive local trait. Another spur fragment with the letters WS moulded upright on the sides (both in relief) has been found at Pipe House Chapel, Garth, near Llangollen (author's collection). This is from a different mould but can also be attributed to Smith, showing that he regularly marked his pipes in this way.

Henry Walter Stone (recorded as a pipemaker at Maidstone in 1851, Rhostyllen in 1861, Wrexham in 1867 and Birmingham from 1871-1876

- 1836 Henry Walter Stone, son of James (paper maker) and Mary of St John's Terrace, Northampton, was baptised at St Giles' in the town on 3 January.
- 1841 Henry, age 5 (1836) and his mother, Mary (30), were living in Sandling Road, Maidstone, with Thomas Freeman (turner) and his wife Elizabeth (both 30).
- 1851 Listed as a pipemaker, 15, living in Perry Street, Maidstone, with his mother Mary (47, paper makers wife, born Tunbridge Wells) and cousin (Emma Burr, 4, born Clapham).
- 1861 Listed as a master pipemaker, 25, living in Rhosttyllen, near Wrexham, with his father James (60, paper maker, born Bermondsey) and cousin (Emma Burr, 14, scholar, born Clapham).
- 1864 Given as a merchant's clerk living in Willenhall when he married Elizabeth Powell at Willenhall on 18 November 1864 (daughter of Thomas Powell, locksmith). He signed the register in a very accomplished hand, suggesting he had been well-educated.
- 1867 Described as a pipemaker of Tuttle Street, Wrexham, when he was mentioned in the *Chester Chronicle* of 30 November for non-payment of the poor rate.
- 1868 Elizabeth Stone of Famelon Street was buried on 28 July at Wrexham, age 32 (1836).
- 1871 Listed as a widowed tobacco pipemaker, 34 (1837), lodging at 124 Lancaster Street in St Mary's, Birmingham (and probably working for John Toole at 125 Lancaster St).
- 1876 Listed as a widowed tobacco pipemaker of Talbot Street, age 40 (1836), when he married spinster Julia Ann Best, 25 (1851), daughter of Richard Best, labourer, at All Saints, Birmingham, on 7 August. Julia already had an illegitimate child, Florence Gertrude Best, whose birth had been registered at West Bromwich in the final quarter of 1874.
- 1881 Listed as a letter carrier at 45 Lloyd Street, West Bromwich, with his wife and four girls (aged 6, 4, 2 and 6 months), all given as his daughters (including Florence), and all born at West Bromwich.
- 1890 The death of Henry Walter Stone, 55 (1835) was registered at West Bromwich (Q3; July-September).
- 1891 Henry's widow Julia Ann had remarried to Paul Martin, a boiler maker, and they were living at 49 Lloyd Street in West Bromwich. Paul already had two children of his own and she had seven more (Florence Best, then 16, and six children of Henry's; Ellen (14), Agnes (12), Alice Elizabeth (10), Henry (6), Walter (3) and Frank (1), all born at West Bromwich).

Henry Stone's father (James Perryman Stone) and grandfather (Charles Stone) were both paper makers from London.

His father had been born in Bermondsey but was working in Northampton when Henry was baptised there on 3 January 1836. The family does not appear to have stayed together, since just Henry (5) and his mother had moved to Kent and were listed at Maidstone in the 1841 census, where they were living with another couple (his mother had been born in Tunbridge Wells, Kent, and so may well have moved back to the county to be near family). The same applied in 1851 when they were still living in Maidstone but with his father being absent - his mother being described as the head of the household (although listed as a paper maker's wife). In the 1851 census Henry being was described as a pipemaker (age 15) and so he presumably learnt the trade while growing up with his mother in Maidstone. He must, however, have kept in touch with his father since, by 1861, he was living with him at Rhosttyllen, about 2 miles to the south-west of the centre of Wrexham. At that date Henry was listed as a master pipemaker, indicating that he was by then running his own business, which could either have been in Rhosttyllen, or in nearby Wrexham itself. Just three years later, in 1864, he appears to have changed trades, being listed as merchant's clerk at Willenhall (West Midlands) when he married Elizabeth Powell. This move did not last since, by 1867, he was described as a pipemaker of Tuttle Street, Wrexham, when he was mentioned in the Chester Chronicle for non-payment of the poor rate. This may indicate that the business was in financial difficulties and, following the death of his wife in Wrexham in 1868, he moved to Birmingham, where he was listed as a pipemaker in the 1871 census. He was lodging at 124 Lancaster Street and almost certainly working for John Toole at 125 Lancaster Street (Toole was working at that address during the 1860s and 1870s and, in the 1871 census, is described as a master pipemaker employing three men and four women). Henry was also recorded as a pipemaker when he married for the second time in 1876, this time to Julia Ann Best, a much younger woman who already had an illegitimate child. The couple moved to West Bromwich, and he went on to have six further children with her but changed trades again, this time being listed as a letter carrier in the 1881 census. He died in 1890, aged 55, and within a few months his widow had married Paul Martin, a boiler maker living in the same street (1891 census).

From the available evidence, it is clear that Henry moved around quite a bit between the midlands, Kent and north-east Wales and tried his hand at various trades. Although he came from a paper making family, he appears to have grown up apart from his father and instead learnt the pipemaking trade in Maidstone. He moved to work in the Rhosttyllen / Wrexham area of Wales during the 1860s, where he ran his own pipemaking business. This does not appear to have been successful and, following the death of his first wife in 1868, he moved to work as a pipemaker in Birmingham during the 1870s. He remarried in 1876 and moved to West Bromwich, where he was working as a letter carrier in 1881.

James Tarrett (recorded as a pipemaker in Holywell in 1861)

The 1861 census for Mount Zion, Holywell, includes a lodging house run by widow Susannah Hayes, 62, born in Holywell. The boarders included two pipemakers; James Tarrett, 58 (1803), widower, born Ireland, and Joseph Hughes, 20 (1841), unmarried and from Leeds. Mount Zion was close to Whitford Street, where the John Davies (*q.v.*) ran a pipe workshop and so these two individuals were probably journeymen working for him.

John Ward (recorded as a pipemaker in Oswestry 1708-1710, at Wrexham in 1720 and at Oswestry 1733-1754 (ob))

- 1686 John, son of Charles and Mary Warde, baptised 5 November (Loppington PR).
- 1708 Charles, son of John Ward, pipemaker, and Elizabeth, born 17 June, bap 4 July (Oswestry PR).
- 1709 Charles, son of John Ward, pipemaker, buried 24 March 1708/9 (Oswestry PR).
- 1710 Mary, daughter of John Ward, pipe-maker, and Elizabeth, bap 29 Jan 1709/10 (Oswestry PR).
- 1720 Ann, daughter of John Ward, pipemaker of Wrexham Abbot, born and baptised on 4 September (Wrexham PR).
- 1733 William Griffiths, bricklayer, and Mary Ward, both of Willow St, married 28 October (Oswestry PR).
- 1741 Mary, wife of John Ward of Willow St (no occupation given), buried 19 July (Oswestry PR).
- 1754 John Ward, Willow Street, "late pipe maker", buried 11 February (Oswestry PR).

John Ward is recorded as a pipemaker in Oswestry from at least 1708 until his death in 1754, but also appears to have worked in Wrexham for a period around 1720. John was the son of the pipemaker Charles Ward (named as such in his will), and was almost certainly born at the village of Loppington, about three miles west of Wem, Shropshire, in 1686 (as were his siblings Mary and Anne in 1684 and 1692 respectively). The family appear to have moved to Oswestry between 1692 and 1696, when John was still a child (a sister Martha was born in Oswestry in 1696) and he is only likely to have started helping his father as a pipemaker once they had moved to Oswestry (Charles is recorded as a pipemaker in Oswestry from at least 1696 until his death in 1725). By 1708 John had married Elizabeth and is recorded as a pipemaker at Oswestry when their son Charles was born (born 1708; died 1709). A daughter Mary (born 1710) later married a bricklayer and he also had a daughter Ann (born 1720), who was left £5 in his father Charles' will of 1725. This is likely to be the Ann born to a pipemaker named John Ward at Wrexham in 1720 (and which is the only time that John appears in the Wrexham parish registers). It would make sense if John and his young family had moved to Wrexham for a while around this time to look for work, perhaps with the Russell family, only returning to Oswestry after his father's death in 1725 (or his mother's death three years later) to take over the family business there. John's wife Elizabeth must have died at some point after 1710 and he seems to have remarried to Mary, whose burial is recorded at Oswestry in 1741. John himself died there in 1754, when he would have been about 68. He was described as "late pipe maker" at the time of his burial, suggesting that he had retired by this date.

Oswestry

Edward Williams (recorded as a pipemaker in Oswestry 1841-c1876 and Wrexham c1876-1891+)

1841 - The census for Church Street, Oswestry lists the following household:								
10-71	Isabel Haswell	ncci, Oswes	ing moto the	40	mg nousenoid.	Born in Salop		
	John Williams			20	Pipe Maker	Born in Salop		
	Edward Williams			15	Pipe Maker	Born in Salop		
	Thomas Williams			12	Pipe Maker	Born in Salop		
1851 -	The census for the Robin	Hood Taver	m. Leg Stree		-	Boin in Surop		
1001	Charles Almond Haswell		Mar	41	Pipe Maker Emp 3 Men	Liverpool		
	Isabel Haswell	Wife	Mar	51	Tipe maner Emp e men	Salop, St Martins		
	Edward Williams		U	28		Flints, Hanmer		
	Thomas Williams	-	U	24	Painter	Salop, Oswestry		
	Mary Drewett	Visitor	W	43	Dress Maker	Salop, Whittington		
1861 -	The census for Leg Stree	t, Oswestry,	includes the	follo	wing household:	17 &		
	Charles Almond Haswell		Mar	53	Tob Pipe Manfr Emp	Liverpool		
					2 men and 1 boy	•		
	Isabel Haswell	Wife	Mar	63	,	Salop, St Martins		
	Edward Williams	Step Son	Un	39	Tobacco Pipe Maker	Salop, Ellesmere		
	Elizabeth Arnold	Grand Day	ı Un	16	-	Liverpool		
1871 -	The census for Leg Stree	t, Oswestry,	includes the	follo	wing household:	•		
	Charles Haswell	Head	Mar	61	Pipe Maker	[no birthplace]		
	Isabel Haswell	Wife	Mar	78		[no birthplace]		
	Edward Williams	Step Son	Unm	49	Pipe Maker	[no birthplace]		
	John Williams	Step Grands	on	Un	11	[no birthplace]		
1881 -	The census for 4 Abbot	Street, Wrey	kham, includ	des the	e following entry (living with W	filliam Smith (pipemaker)		
	and family, $q.v.$):							
	Edward Williams	Lodger	Unm	60	Tob Pipe Maker	Oswestry		
1891 -	- The census for 17 Pierc	e Square, W	rexham, inc	cludes	the following entry (living with	n William Smith (tobacco		
	pipemaker) and family, q	·.v.):						

1901 - The census lists Edward Williams as an inmate in Wrexham Union Workhouse, Bersham. He was described as single, 79 (1822), formerly a clay pipemaker, born Oswestry.

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The census returns variously describe Edward Williams as having been born in either Shropshire (Ellesmere or Oswestry) or Flintshire (Hanmer) at some point during the 1820s (year of birth varies in each census). What is certain is that, by 1841, his mother had remarried to Charles Almond Haswell, a beer house keeper and pipemaker in Oswestry, who was born in Liverpool in 1809, and Edward was living with her and working as a pipemaker. In 1841 Charles himself was away in Liverpool, lodging in Mount Pleasant with his presumed brother William Haswell, 18, pipemaker, but he otherwise appears in Oswestry until his death in the second quarter of 1876. Throughout this period, Edward remained unmarried and lived at home with his mother and step-father, for whom he was presumably working. The death of Charles Haswell appears to mark the end of pipemaking in Oswestry and it is assumed that Edward moved to Wrexham at about this point to find work, since he is listed there in 1881, living with the pipemaker William Smith and his family. He was still with them in Wrexham in 1891 but they, too, appear to have finished pipemaking during the 1890s. By 1901 Edward was in the Wrexham Union Workhouse, listed as 'formerly a clay pipe maker'. He never married and only ever appears to have worked as a journeyman for others.

James Wilson (recorded as a pipemaker at Bistre in 1851)

Edward Williams

1851 - The census for Nant Mawr, Bistre, includes the following household:

Lodger

Thomas Boyde	Head	Mar	23	Pipe Maker Master emp 2 men	Carlisle
Sarah Boyde	Wife	Mar	53		Gresford
Mary Morris	Step Dau		11		Mold
George Jones	Servant	Widwr	62	Pipe Maker Journeyman	Chester
James Wilson	Servant	U	25	Pipe Maker Journeyman	Whitehaven

James was working as a journeyman pipemaker for Thomas Boyde at Bistre in 1851. James had been born in Whitehaven in about 1826 and so may have has some sort of link with Boyde, who was a similar age and came from Carlisle. It has not been possible to locate James Wilson in any earlier or later records.

Matthew Wynne (Chirk area: recorded as a pipemaker in the Chirk Castle accounts, 1697)

The Chirk Castle accounts for 24 July 1697 include the entry "Pd Matthew wynne the tobacco pipes maker for 6 grosse of pipes 0-12-0". The price of 2 shillings per gross is relatively high, suggesting good quality products. Unfortunately, the entry does not say where Wynne was working, and it has not been possible to trace him in online parish records for the

surrounding region. He is likely to have been working somewhere near Chirk and contemporary pipes stamped MW have been recorded from Buckley, Denbigh, Willaston (near Crewe) and Tai Penamnen in Snowdonia (see pages 114-5 above for details), which suggests a well-established and prolific business. This distribution pattern fits with a workshop based somewhere in north-east Wales but, at present, this pipemaker can only be identified as having been located somewhere in the Chirk area.

Section C - List of Pipemakers (sorted by initials and then first known date)

The final part of this appendix provides a summary list of the pipemakers by initial. This is list is ordered by surname initial first, then Christian name initial and finally by the earliest recorded date, where more than one individual with the same initials exists. This allows the option(s) for any given maker's mark to be easily found, while at the same time providing a handlist of all the makers from the region together with a summary of the dates and places where they worked. The initial 'I' has been substituted for 'J' in the list, since this is the form in which it was usually used on marked pipes.

- IA Joseph Atkinson (recorded as a pipemaker in Wrexham in 1876)
- IB James Rice Bolam (recorded as a pipemaker at Stepney in 1841, Ipswich in 1843, Holywell in 1844, probably at Liverpool 1845, probably at Oxford 1848 and at St Pancras in 1851)
- IB John E. Blunt (recorded as a clay tobacco pipemaker at Ruabon in 1881)
- SB Samuel Bayly (recorded as a pipemaker at Chester in 1691 and at Wrexham in 1699)
- TB Thomas Boyde (recorded as a pipemaker at Bistre, Buckley, 1851-1861)
- WB William Evan Bolam (recorded as a pipemaker at Holywell in 1844)
- WB William Bostock (recorded as a pipemaker in Wrexham in 1881)
- IC John Cope (recorded as a pipemaker in Wrexham 1837-1871)
- IC John Cokeyne/Cokayne (recorded as a pipemaker at Hawarden in 1841)
- MC Michael Clavin (recorded as a pipemaker in Mold in 1851)
- SC Samuel Chamberlain (recorded as a pipemaker in Digbeth (Birmingham) in 1845; Llong (Flintshire) in 1847 and Warwick from 1851-61)
- DD David Davies (recorded as a pipemaker at Holywell 1871)
- ED Edward Davies (recorded as a pipemaker in Wrexham in 1851)
- ID John Davies (recorded as a pipemaker in Chester 1841; Leicester *c*1849-1851; Nottingham *c*1854 and Holywell *c*1856-1869)
- ID John William Davies (recorded as a pipemaker in Holywell *c*1877-1895)
- ID Joseph Davies (recorded as a pipemaker at Holywell 1881)
- MD Mary Ann Davies (recorded as a pipemaker in Leicester in 1851 and Holywell 1871-1901)
- SD Samuel Davies (recorded as a pipemaker in Holywell 1871-1901)
- TD Thomas Davies (recorded as a pipemaker in Holywell 1881-1901)
- WD William Davies (recorded as a pipemaker in Chester 1841-1851, Liverpool 1856, Chester 1861-1871 and Holywell 1881-1899)
- EE Elizabeth Evans (recorded as a pipemaker at Bistre, Buckley, 1841)
- SE Samuel Eastwood (recorded as a pipemaker at Hawarden in 1840, at Bistre, Buckley, in 1841 and in Halifax 1851-1881)
- TF Thomas Fox (recorded as a pipemaker at Hawarden 1716-1732)
- AH Abel Hayes (likely to have been pipemaking at Ewloe, c1720-c1750 and Liverpool c1750-1803)
- AH Anne Hayes (probably working in Wrexham c1812-1845)
- AH Abel Hayes (recorded working in Wrexham 1825-1871)
- CH Charles Edward Hickman (probably a pipemaker in Wrexham from c1899-1903)
- EH Edward Hayes (perhaps a pipemaker in Wrexham prior to his death in 1731/2)
- EH Elizabeth Hayes (recorded as a pipemaker at Hawarden from 1828-1835 and at Bistre, Buckley, in 1841)
- HH Henry Salisbury Hudson (recorded pipemaking at Wrexham in 1867)
- HH Henry Hayes (recorded as a pipemaker at Wrexham 1867-1868 and at Gillingham, Kent, in 1871)
- IH John Hayes (likely to have been pipemaking at Ewloe, c1653-1708)
- IH Jeremiah Hayes (c1744-1820: probably worked as a pipemaker in Hawarden c1760-1820)
- IH Jeremiah Hayes (c1783-1836: probably worked as a pipemaker in Hawarden c1800-1836)
- IH Jeremiah Hayes (?born about 1790 (wife Elizabeth): recorded pipemaking at Wrexham 1819-1842)
- IH Jeremiah Hayes (born c1792, son of Thomas: Probably worked as a pipemaker in Hawarden before 1808 and recorded as a pipemaker in Middlesex 1838-1861)
- IH Jeremiah Hayes (?born about 1800 (wife Sarah): recorded pipemaking at Wrexham 1830)
- IH James Hickson (recorded as a pipemaker at Hawarden in 1803)
- IH John Hayes (recorded pipemaking at Wrexham 1848-1869)
- IH Joseph Hughes (recorded as a pipemaker in Holywell in 1861 and possibly at Wymondham, Norfolk, in 1881)
- PH Philip Hullah (recorded as a pipemaker at Hawarden in 1841, at Newport in 1861-1862 and in Sheffield from 1871-

- 1891)
- PH Patrick Higgins (recorded as an earth pipemaker (sanitary?) in Wrexham 1891)
- SH Samuel Hughes (recorded as an earth pipemaker in Buckley in 1891)
- TH Thomas Hayes (c1676-1720; likely to have been pipemaking at Ewloe, c1697-1720)
- TH Thomas Hayes (born c1702; likely to have been pipemaking in Hawarden, c1720-1750+)
- TH Thomas Hayes (?c1722-1795, 'Ye Younger'; possibly pipemaking in Hawarden, c1740-1780 and in Liverpool c1780-95)
- TH Thomas Hayes (1749-1780; possibly pipemaking in Hawarden, c1760-1775 and in Liverpool c1775-1800)
- TH Thomas Hayes (c1770-1829; recorded pipemaking at Hawarden 1791-1803, at Chester in 1811 and at Wrexham 1812-1829)
- TH Thomas Hayes (1808-1841+; recorded pipemaking at Aston, Hawarden, in 1841)
- TH Thomas Hayes (1814-1875: recorded pipemaking at Wrexham 1835-1871)
- TH Thomas David Hughes (recorded as a pipemaker (sanitary?) at Penycae, 1881-1891)
- TH Thomas Hughes (recorded pipemaking at Chester 1883; Wrexham 1886-1903 and at Ruabon from a stem stamp of *c*1885-1900)
- WH William Hewson (1822-1869: recorded as a pipemaker at Bistre 1841 and probably at Darlington, Co Durham, +1852-1861+)
- GI George Jones (recorded as a pipemaker in Chester 1812-1832 and at Bistre 1851-1861)
- WI William Jones (recorded as a pipemaker at Bistre in 1881)
- IM Joseph Monnax (recorded as a pipemaker at Hawarden in 1748)
- PM Peter Morris (recorded as a pipemaker at Bistre before 1856)
- EP Edward Parry (recorded as a pipemaker (sanitary?) at Ruabon (Rhosllanerchrugog) in 1881)
- RP Richard Prince (recorded as a pipemaker in Wrexham +1685-1715+)
- R Robert (recorded as a pipemaker in Wrexham +1685)
- IR Joseph Riley (recorded as a pipemaker at Bistre 1841 and at Keighley, West Yorkshire, 1851-1881)
- IR Joseph Rogers (recorded as a pipemaker (drain?) at Ewloe in 1881)
- MR Mary Russell (recorded as a pipemaker in Wrexham in 1721 (ob))
- RR Richard Russell (recorded as a pipemaker in Wrexham +1684-1707(ob))
- SR Samuel Rogers (recorded as a pipemaker (drain?) at Ewloe in 1881)
- WR William Russell I and II (recorded as pipemakers in Wem, Shropshire, in 1692 and at Wrexham +1695-1713+)
- WR William Rogers (recorded as a pipemaker in Wrexham +1874-1876+)
- ES Edward Sharlock (recorded as a pipemaker in Holywell in 1868)
- HS Henry Walter Stone (recorded as a pipemaker at Maidstone in 1851, Rhostyllen in 1861, Wrexham in 1867 and Birmingham from 1871-1876)
- WS William Smith (recorded as a pipemaker in Great Yarmouth 1851-1861, Brighton *c* 1865, Chester in 1871, Stockport *c* 1874 and in Wrexham *c* 1877-1899)
- IT James Tarrett (recorded as a pipemaker in Holywell in 1861)
- EW Edward Williams (recorded as a pipemaker in Oswestry 1841-c1876 and Wrexham c1876-1891+)
- IW John Ward (recorded as a pipemaker in Oswestry 1708-1710, at Wrexham in 1720 and at Oswestry 1733-1754 (ob))
- IW James Wilson (recorded as a pipemaker at Bistre in 1851)
- MW Matthew Wynne (Chirk area: recorded as a pipemaker in the Chirk Castle accounts, 1697)

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