Clay Tobacco Pipes

Although clay tobacco pipes are still made today their place in history is the seventeenth, eighteenth and nineteenth centuries. Until about 1890 the clay pipe was as commonplace as the tankard of ale and the mug of tea, but competition from the briar pipe, the cigar and the cigarette brought the clay-pipe industry to an end at the turn of the century. Many people remember using clay pipes for blowing bubbles when they were children and some can recall seeing navvies, or their grandfather, smoking them, but it will not be long before such memories are forgotten. Remnants of these old pipes can be found in fields and gardens where they have lain for anything from 50 to 350 years, but now they are being eagerly looked for and picked up by the hundreds, and the enthusiastic finder is confronted with many questions. How old is it? What is it made of? Who made it? How was it made? Where was it made? How did it get there? And so on. The aim of this book is to answer these questions and to record the part the humble 'clay' once played in our society.

About the author

Eric G. Ayto has manufactured clay tobacco pipes as a craft potter since 1972. He served in the Royal Air Force during the Second World War and continued in the field of aviation as an aircraft maintenance engineer and quality controller. When living in the seventeenth-century coaching village of Colnbrook he became a member of the Middle Thames Archaeological and Historical Society, and his interest in the history of clay pipes led him to Eton, where he discovered an almost forgotten pipemaking industry dating from about 1690 to 1914. He now lives in Hampshire where he is studying the old clay pipe industries in Portsmouth and Portchester.

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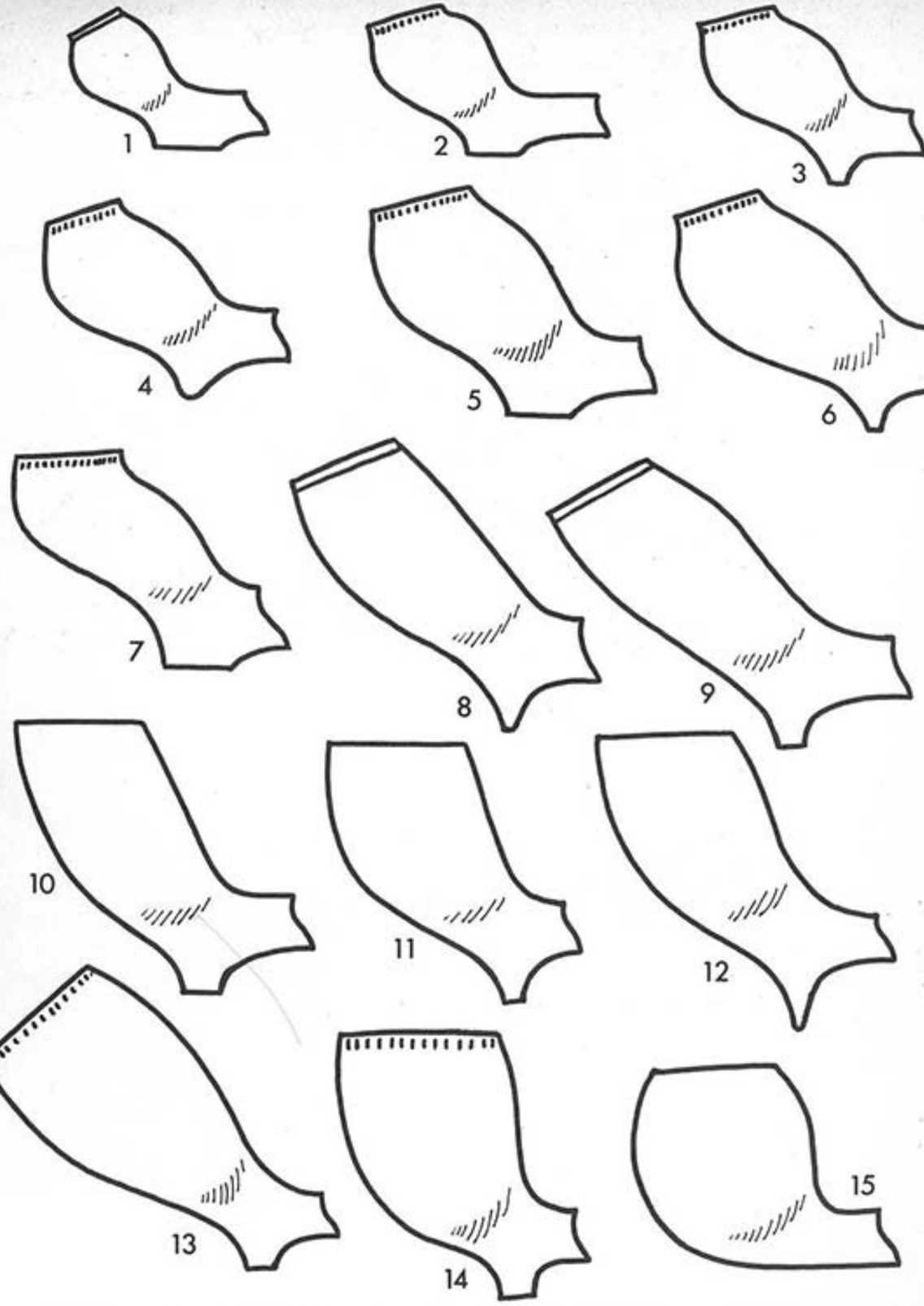
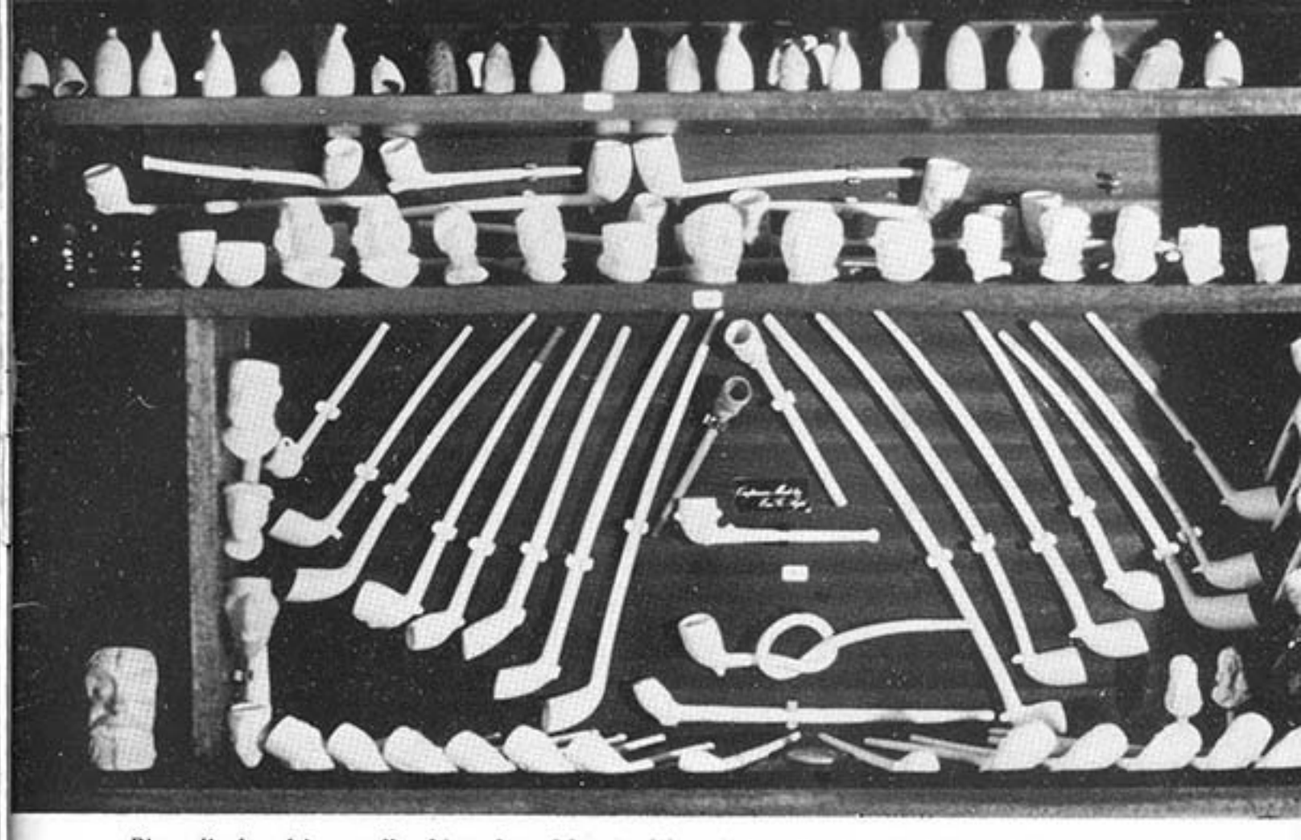
CLAY TOBACCO PIPES

ERIC G. AYTO



Bowl shapes: 1, c. 1580-1610, heart-shaped base; 2-3, c. 1610-40, flat bases and development of spurs, milling common; 4, c. 1640-60, small increase in size; 5-6, c. 1660-80, notable increase in size; 7, c. 1660-80, west country style; 8-9, c. 1680-1710, development of long bowls; 10, c. 1700-70, top of bowl parallel to stem; 11, c. 1770-1820, thin and brittle walls, pedestal spurs; 12, c. 1810-40, long pointed spurs; 13, c. 1850-1910, Dutch style, copied by some English makers; 14, c. 1850-1910, Irish style, made by some English makers from standard type mould; 15, c. 1860-1930, copy of briar.



Pipes displayed in a wall cabinet from Maurice Moverley's collection. At bottom left note the large bowl depicting the head of the Greek god Bacchus. The knotted stem pipe at centre was made specially for this collection by the author.

CLAY TOBACCO PIPES

Eric G. Ayto

Shire Publications Ltd

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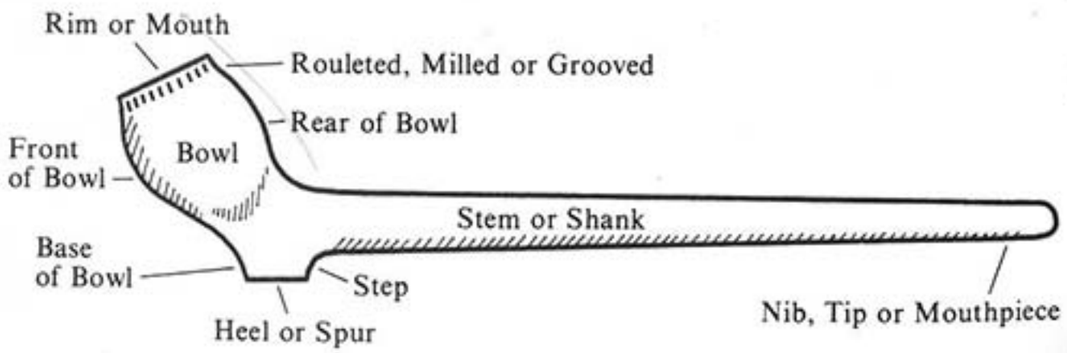


The different parts of a clay tobacco pipe. An early seventeenth-century style is illustrated.

Civil War Society members smoking clay pipes during a muster at Powderham Castle, Devon.

INTRODUCTION

During the last ten years or so there has been a growing interest in the collection of everyday objects of the past and in their history. Not least among these is the clay tobacco pipe: from its humble beginnings to its more sophisticated forms in the nineteenth century it has played a prominent part in social life for well over three hundred years.

The history of the clay tobacco pipe is a fascinating subject and fresh information is continually coming to light. In relating the evolution of the clay tobacco pipe in England, and so providing a background to the craft of the people who made them, it is hoped that this book will help both the collector and the historian to identify their finds and to understand better their origin and history.

ORIGIN AND DEVELOPMENT

No one knows who made the first clay pipe for smoking tobacco, but the idea was probably adopted from the American Indians about the middle of the sixteenth century. There is little doubt that the craft of making clay tobacco pipes began in England shortly after the introduction of tobacco (about 1558) in order to satisfy the demand of people, including women and children, to take up the art and pleasure of 'tobacco drinking', as it was then called.

Although the principal form of the clay pipe remained much the same throughout its long life, notable variations in the style and size of the bowls occurred, as well as variations in the length of the stems. Some styles were the consequence of changing fashions, but others could well have been the result of improved skills of both the pipemaker and the mouldmaker. The size and capacity of the bowl itself, however, was influenced by the cost and availability of tobacco at the time.

The earliest description of the English clay pipe was in 1573 by William Harrison in his *Great Chronologie.* Here he describes the pipe as being 'an Instrument formed like a ladell'. This spoon-like shape was probably derived from the Indian pipe, which was used only for medicinal purposes and religious ceremonies.

By 1580 the bowl had altered to provide a better container for the tobacco, adopting a rather ingenious barrel shape and a forward incline. The base of the bowl was flat and the stem was straight and only about 4 to 6 inches (100 to 150mm) long; the pipe could therefore rest upright on the table. Although these early pipes were very small and rather crude, they were nonetheless extremely functional. The inside diameter of the bowl was about ¼ inch (6mm) and the bore of the stem around ⅛ inch (3 mm).

Several names have been given to these tiny pipes according to the locality in which they were found and the beliefs of the finders: fairy pipes, elfin pipes, old man's pipes, Celtic pipes, Cromwellian pipes and even Roman pipes. They are sometimes referred to as *plague pipes* because of the large numbers found in plague pits during excavation work in London: people were encouraged to smoke clay pipes in those days in the belief that it would ward off the disease.

By 1640 the inside diameter of the bowl had increased only to about ⅜ inch (9 mm) and there was no noticeable increase in the length of the stem. After this date the bowl became much larger and the stem longer (about 10 to 14 inches, 250 to 350 mm) and, except for the development of a short rounded spur in place of the flat heel and a few minor variations in style in different parts of England, the basic shape remained the same for the next sixty years or so. The reason for the spur is obscure; perhaps, because of the longer stem, the bowl was allowed to rest on the table when being smoked, thus preventing the heat from the bowl spoiling the polished surface.

A milled or plain ring at the top of the bowl was common for this period and, except for the occasional maker's mark, the majority of seventeenth-century pipes were otherwise plain. Towards the end of the century the inside diameter of the bowl was about ½ inch (13 mm) and the bore diameter of the stem from about 3/32 to ⅛ inch (2.4 to 3 mm). Most stems were straight, but some tended to curve either upwards or downwards, more probably from distortion during firing than from design, and the bowl had lost its bulbous look in favour of a more elongated appearance.

A few elaborately decorated pipes were made during the first half of the century and, although there were some English versions, they are thought to be mainly of Dutch origin. The designs were either stamped or incised by hand (on both bowl and stem) or moulded in relief. Two well-known examples are the head of Raleigh about to be swallowed by a crocodile or serpent (which might well represent King James I, who tried hard to suppress the habit of smoking tobacco) and a rather charming pipe showing what might be the faces of Charles I and Henrietta Maria and which may have been issued to

Seventeenth-century pipes (top to bottom and left to right): c. 1620-40, small bowl with flat base; c. 1640-60, slightly larger bowl and stem with flat heel; c. 1660-80, larger capacity bowl with flat heel; c. 1660-80, large capacity bowl with forward protruding spur; c. 1660-80, similar size and shape of bowl but with flat heel; c. 1660-80, west country type with flared heel; c. 1660-80, west country or midlands type with rounded spur; c. 1660-80, robust bowl and stem, similar to pipes found in the midlands, with rounded spur; c. 1680-90, development of parallel bowl with flat heel; c. 1680-1700, long parallel bowl with degenerate pedestal spur; c. 1680-1700, long parallel bowl with protruding heel.

commemorate their wedding in 1625.

Shortly after 1700 some important changes in quality took place. Pipes were being made with more accurate dimensions, a smoother finish and a higher degree of brittleness. The wall of the bowl was thinner and the stem more slender. All this suggests a steady improvement in the skills of the craft, including firing techniques, as well as in the art of the mouldmaker. At about the same time the top of the bowl was being trimmed level with the stem instead of sloping at a downward angle towards the front of the bowl. This particular change, together with a more upright bowl than before, is an indication of a new method of manufacture which was probably brought about by the introduction of the gin-press, as described later.

Early eighteenth-century pipes favoured a flat-bottomed (pedestal) spur and some were produced with no spur at all. These latter pipes were popular in North America from about 1720 to 1820 and are believed to have been exported by Bristol pipemakers.

During the mid eighteenth century extra-long pipes became fashionable with the gentry. These were called *aldermen* but later became more generally known as *straws.* The stems were around 18 to 24 inches (450 to 600 mm) long and the bore diameters averaged 9/32 inch (2.4 mm). As far as is known, these were the first pipes to have been given a specific name during their period of use.

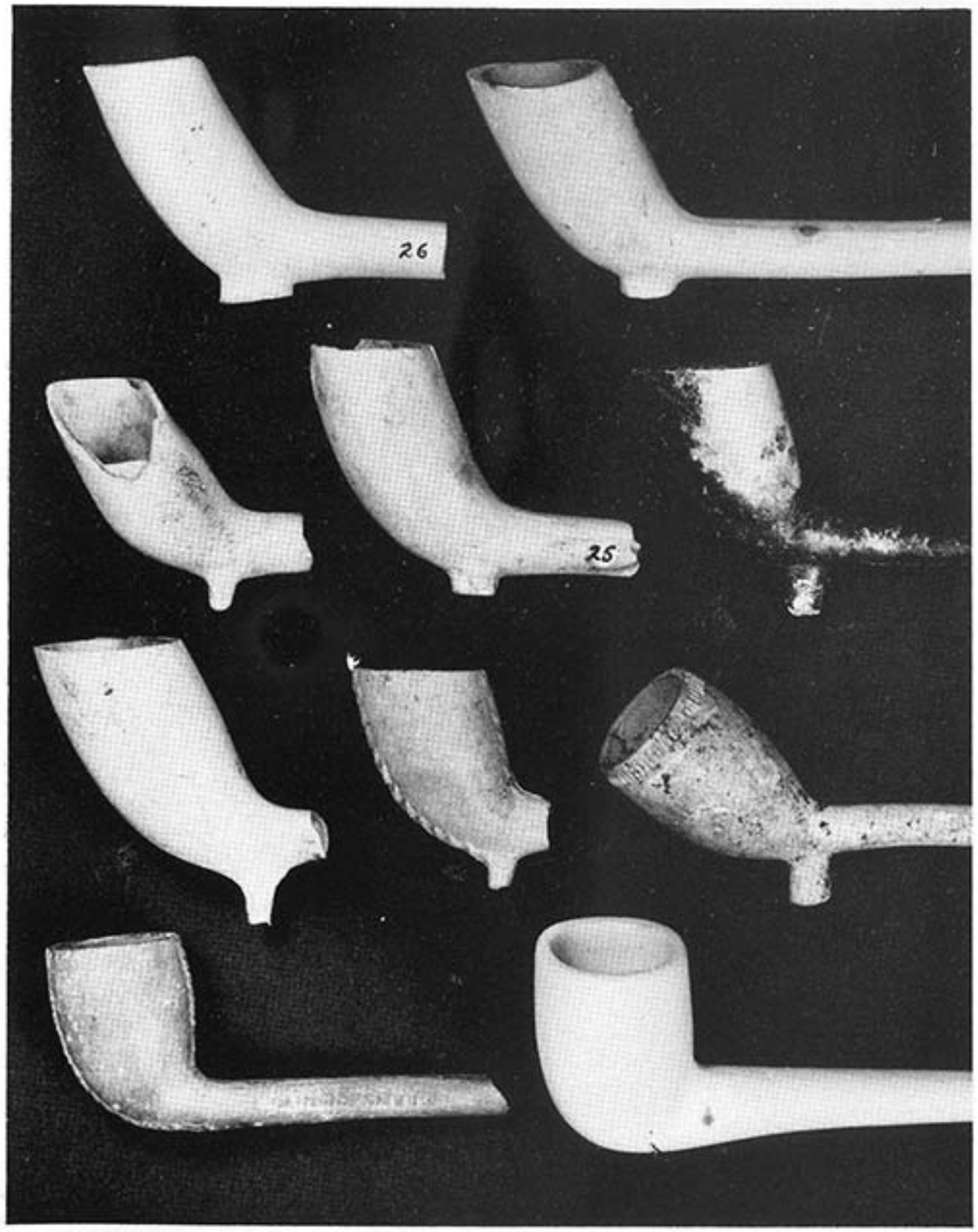
Some London pipemakers were producing heraldic pipes bearing the royal arms, City arms, the arms of companies and the Prince of Wales's feathers during the first half of the eighteenth century. These pipes showed a very high standard of skill by the mouldmakers but designs tended to degenerate as the century wore on. By 1750 pipes were being made with masonic emblems on the bowl as well as with designs representing names of public houses and regiments. A leaf pattern on the seams of the bowl was common, but otherwise decorated pipes were rare. The aldermen, straws and some short plain pipes were the order of the day until well into the nineteenth century.

After 1850 the very long 'yard of clay' was introduced; as the name suggests, these pipes were about 36 inches (900 mm) long. They could not have been very practical and were little more than a passing phase. To assist the smoker, the stems were either marked with a label or twisted at the point of balance. Later in the century these long pipes were more popularly called *churchwardens,* although shorter versions (called *short churchwardens*) were eventually marketed. It has been said that the name 'churchwarden' was the invention of Charles Dickens. There is no proof of this, but he can perhaps be held responsible for perpetuating the name.

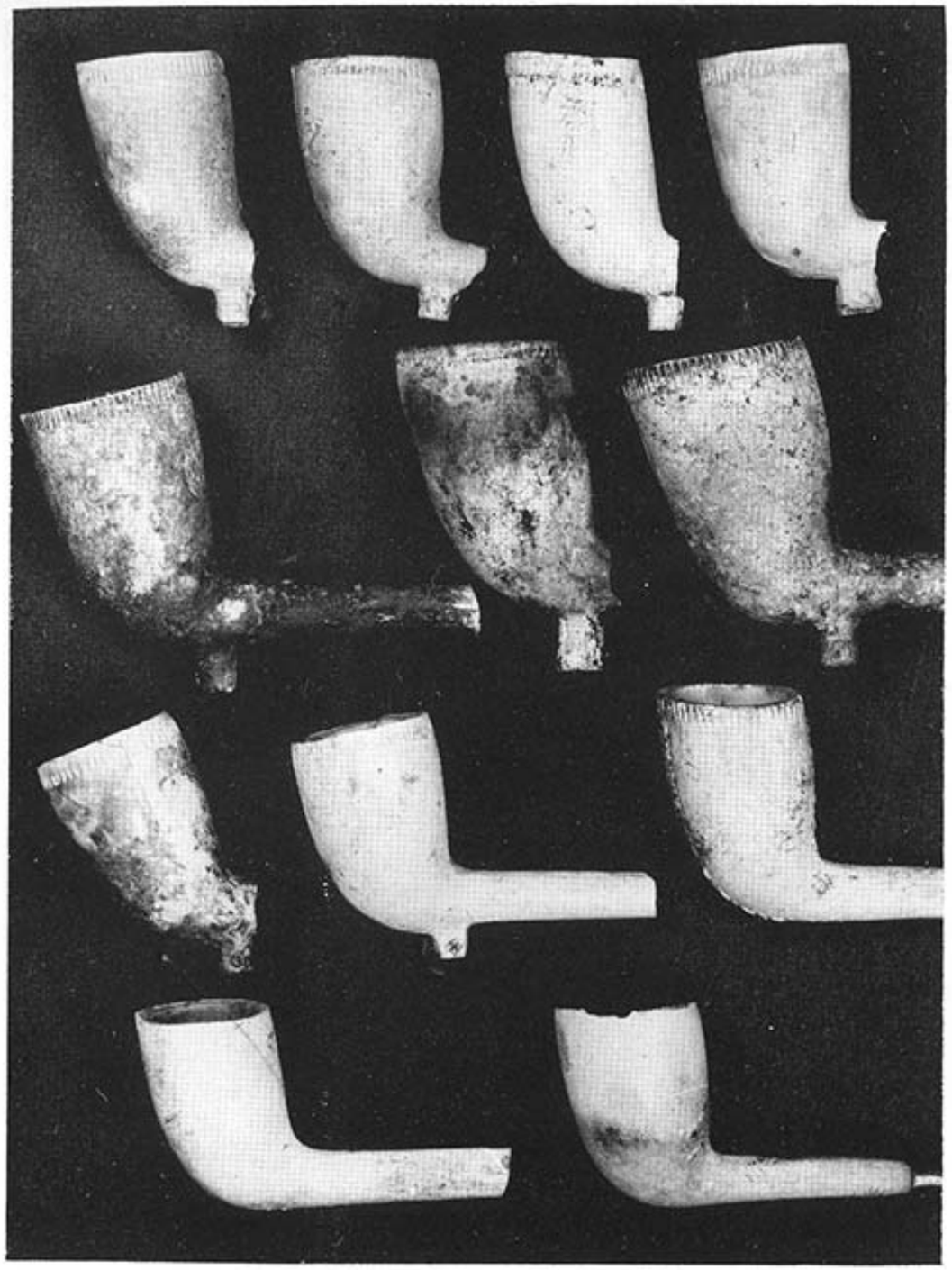
In the second half of the century the production of decorated pipes greatly increased and the Victorian businessmen were quick to exploit their use as an advertising medium. In addition to pipes illustrating events of the time and bearing all manner of slogans, there were designs depicting names of public houses, regimental badges, sporting activities, sailing ships, animals, fish, fruit, flowers and so on. Indeed there was such a host of different subjects that few customers would not have been able to purchase a pipe connecting them with their occupation or interests. These run-of-the-mill pipes were normally sold under the category of *fancy clays,* or *fancies.* The bore diameter of the stem for most pipes of this period was about 1/64 inch (1.6mm) whereas the length of the stem and size of the bowl varied according to the design.

Most fancy clays had the design on the side of the bowl but there were some with the bowl shaped to represent the subject itself. Among these were designs touching on the naughty and macabre, such as the chamber-pot and the human skull. Happily there were also many pleasant subjects portrayed including heads of well-known comedians and jockeys and other famous characters of the day. Various versions of the heads of dragoons and negroes were popular. The origin of the dragoon is a mystery (it was probably French) but the negro's head was most likely connected with the 'black boy' sign used by early tobacconists.

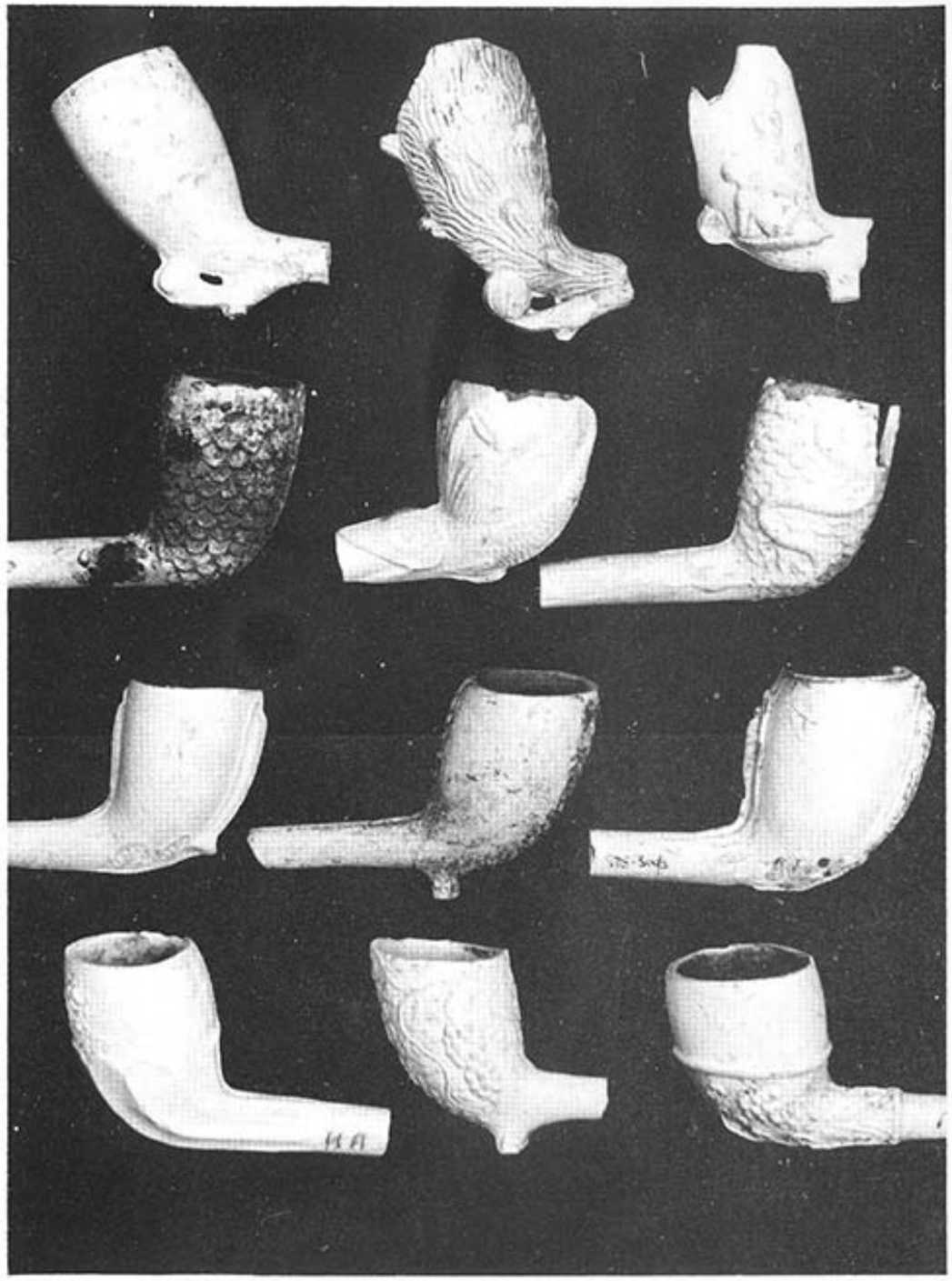
Another trend was brought about by competition from the beautifully carved meerschaum pipes with their comfortable amber mouthpieces. This forced the clay



A selection of pipes dating from about 1690 to 1930 (top to bottom and left to right): c. 1690-1720, long parallel bowl with large pedestal spur; c. 1720-40, long bowl with top of bowl in line with axis of stem; c. 1720, Broseley-type bowl; c. 1720-50, bowl with thin wall section and shallow pedestal spur; c. 1800, bowl with long pedestal spur; c. 1840-60, large and very thin-section bowl with long flat-bottomed spur; c. 1840-70, small bowl with leaf pattern; c. 1860-90 Dutch-type bowl with heavy spur; c. 1880, cutty pipe; c. 1930, briar pipe.



Irish-style pipes of the late nineteenth century, including two cutty pipes (bottom row). The cutty on the right is fitted with a vulcanite stem.



Late nineteenth-century pipes (top to bottom and left to right): plain football; rustic football; football scene; three angler's pipes; three cutty pipes with oak-leaf pattern; scalloped bowl with roses, thistles and shamrocks; two with grape vines.

pipemaker to introduce intricate designs of a similar nature: the eagle's claw clutching an egg (represented by the bowl) and a hand holding a wine glass are two well-known examples. They also produced the popular *character* or *portrait clays* of famous people, including members of the royal family, and many versions of the Victorian lady in her picture hat. These portrait clays were normally finished in a baked varnish (to produce the smoked meerschaum effect) and they were fitted with a vulcanite mouthpiece or else the clay stem was given a shapely bend after moulding. Towards the end of the nineteenth century imitations of the calabash and briar pipes were also made.

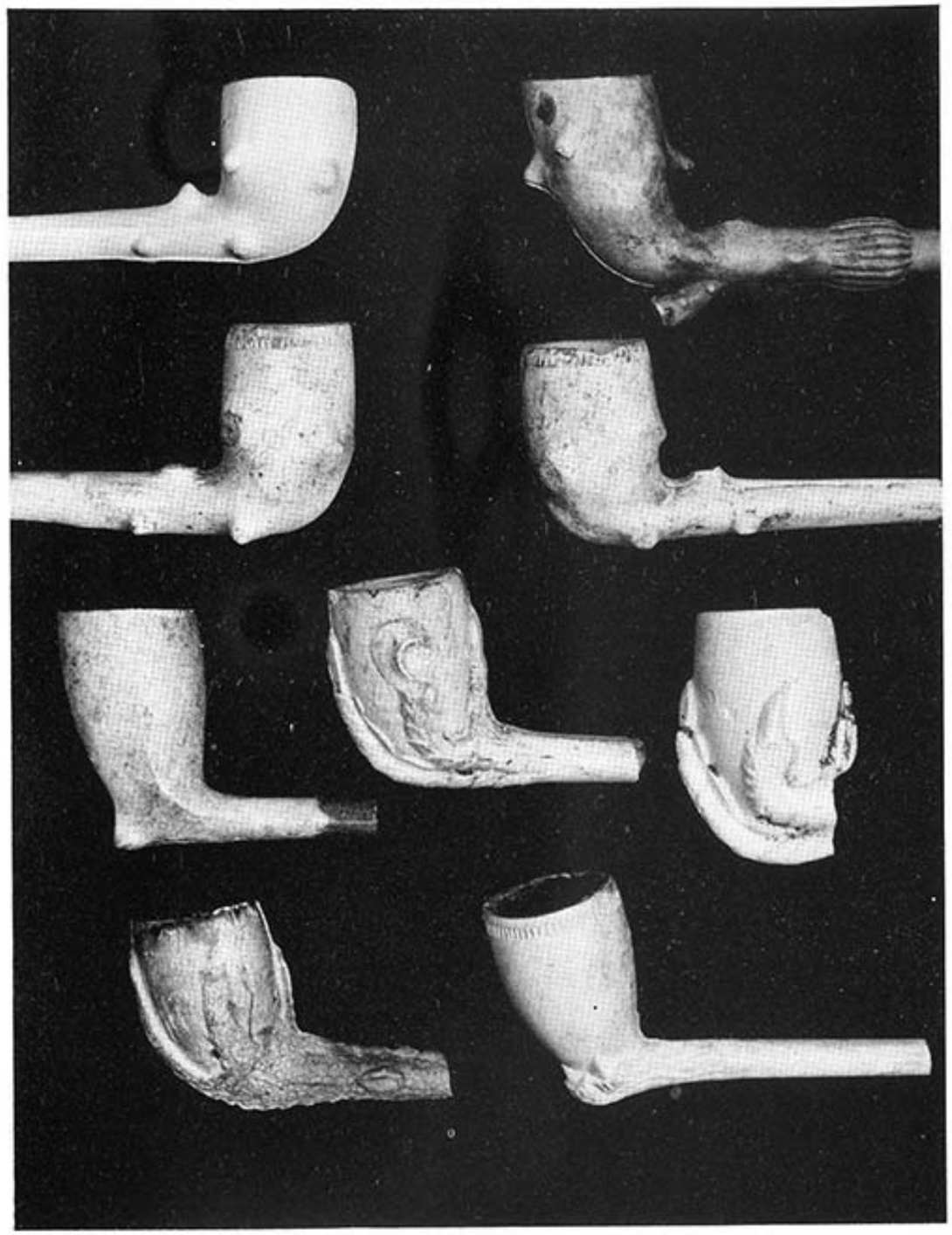
Despite the influx of these elaborate imitations, the nineteenth-century working man preferred his ordinary short clay, which was very cheap and often given away with a pint of beer by the local publican. The shorter pipe had the advantage of reducing the load on the teeth when smoking and working at the same time. This new habit (previously it was usual for a clay pipe to be smoked at leisure with the stem supported in the hand) brought about the production of special short pipes such as the Scottish *cutty* and the Irish *dudheen* although many a pipe was shortened by breaking off the unwanted portion of stem to suit individual needs. Before leaving the factory the ends of the stems were normally treated to prevent the lips sticking to the porous clay; to overcome the loss of this treatment when shortening the stem, the owner would have either dipped the broken end in tea or beer or carefully bound it with thread. Short clays were often referred to in the north of England as *nose warmers*, a term which may have been coined from their use by canal boatmen who gave the impression that they were keeping their noses warm in order to keep their hands on the tiller or in their coat pockets.

The use of clay pipes as bubble pipes was a popular pastime with children until about 1930. The pipes were of the cheap variety and were sometimes found in penny sherbet dabs. Pipes of poor quality were also used as targets at fairground shooting ranges. One much earlier function of the clay pipe was as an emergency powder measure for loading muskets during the Napoleonic wars. Pipemakers living close to naval ports may well have made pipes with the correct capacity in mind.

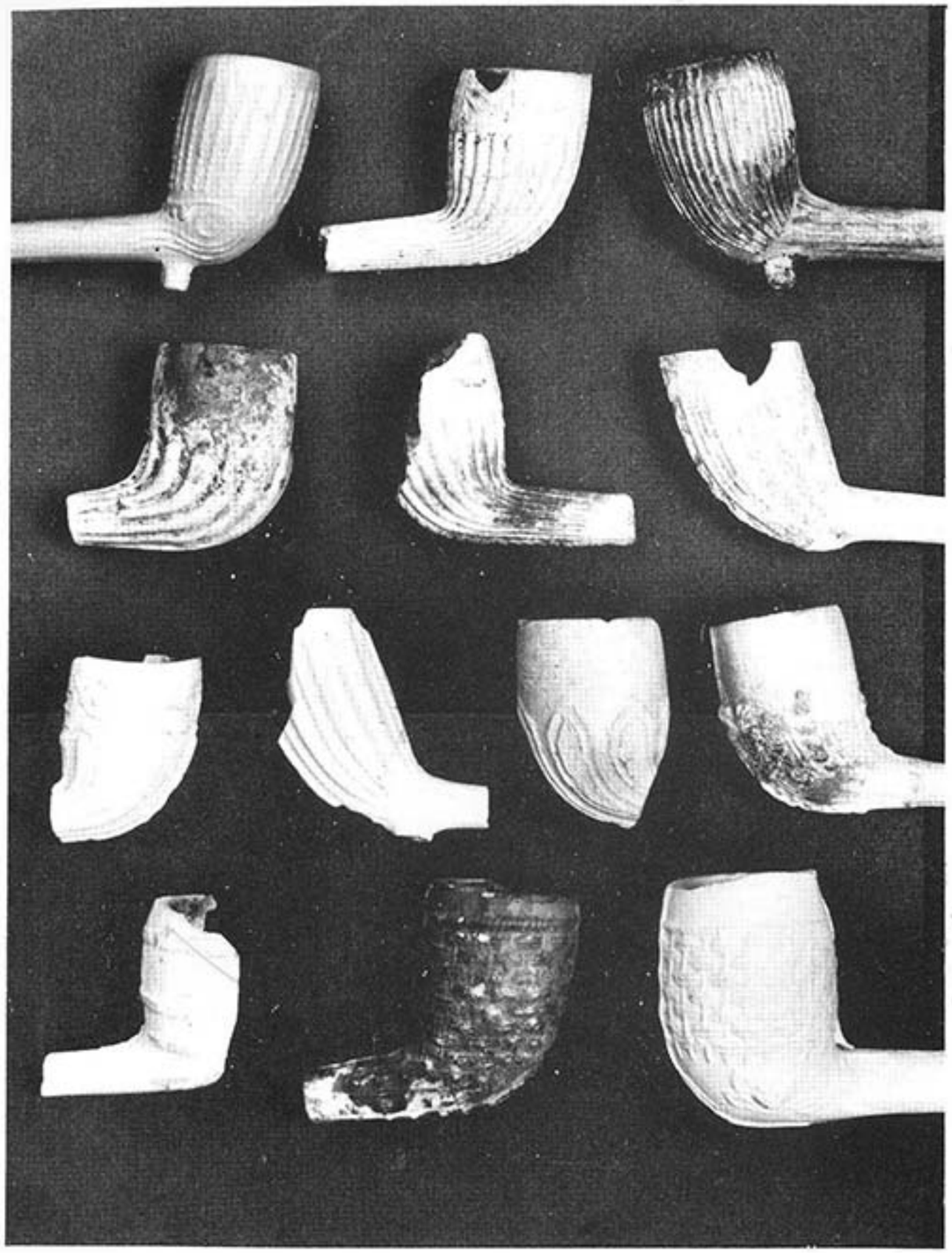
Two dodges favoured by navvies and other labourers were the use of a metal trouser button at the base of the bowl to act as a filter and the fitting of a metal bottle cap, pierced with holes, on top of the bowl to keep the rain out.

By 1914 clay pipe manufacture as an industry had virtually come to an end, leaving only a few well-established makers to meet the small but continuing demand. But there has always been a demand for the clay pipe from those who have enjoyed its cool smoke and slow burning properties and by masonic and other societies for their after-dinner smoke. The Royal Antediluvian Order of Buffaloes still uses them for its initiation ceremonies.

During the last ten years or so the trade has been boosted slightly by pipe collectors and souvenir hunters and, more recently, by members of the Pipe Club of Great Britain, who use clay pipes for their smoking competitions. Perhaps these are the last gasps of a once thriving industry which will never flourish again.



Late nineteenth-century pipes, showing some variations in the thorn and claw designs.



Nineteenth-century pipes showing various ribbed and scalloped designs and also (bottom left) a barrel and (bottom centre and right) basket designs.

A group of pipemakers outside Henry Leigh's pipe manufactory at Portchester, Hampshire, c. 1865.

PIPEMAKERS

Little is known about pipemakers until about 1619 when they were strong enough, in London at least, for James I to grant a charter of incorporation to the tobacco pipemakers of Westminster. The charter was renewed by Charles II in 1663. The charters protected the interests of pipemakers by governing the laws of trading within the city, controlling the training of apprentices and regulating the supply of clay.

Masters of the craft jealously guarded the secrets of their trade and ensured their apprentices did likewise. There was always the possibility of unskilled workers branching out on their own, particularly other tradesmen such as bakers and alehouse keepers. The Company of Pipemakers, soon after its incorporation, had the right to enter dwelling-houses to break up unlawful pipemaking. This was deemed necessary not only to protect members but also to prevent the sale of inferior products.

Early pipemakers were beset by many problems, such as the transportation of clay, the availability of fuel for firing and the distribution of the finished pipes. Their troubles were increased by the innkeepers' practice of cleaning pipes after use by their customers — the pipes were gathered together in a small iron frame made for the purpose and placed in the hot embers of a fire. They may have been taken to the forge of the local smithy, but care would have been necessary lest the steam from residual moisture and oils

of the tobacco caused the pipes to shatter. Records show that most seventeenth-century pipemakers were poor and it was not unusual for a pipemaker to travel from town to town to escape unhealthy competition. Several London makers migrated to the eastern ports, where there was a good coastal trade.

By 1650 there were at least a thousand pipemakers in London alone and many others operating in other towns such as Bristol, Broseley, Chester, Gateshead, York and Hull. The industry had also spread to other parts of the British Isles and to Holland; early Dutch pipemakers had English names and are thought to have been among the Puritans who settled in Holland at the beginning of the century seeking freedom of religion.

Between about 1670 and 1740 the popularity of snuff taking caused a recession in the trade. This new habit was brought over from France by the followers of Charles II on his return from exile in 1660; the courtiers there considered it to be more elegant to sniff powdered tobacco than to smoke it. Otherwise the trade continued to expand so that most towns in England had at least one pipemaking family. In the nineteenth century factory production was introduced and led to the decline of the trade as a cottage industry. Nevertheless, throughout the history of making clay tobacco pipes the master craftsman would have kept his business on a family footing and it was not uncommon for his widow or daughter to continue trading after his death.

Some pipemakers augmented their earnings by producing other objects in clay, such as hair-curlers during the seventeenth and eighteenth centuries. More recently blocks of hearth-stone were prepared for the proud housewife to keep her front doorstep white and clean. A good example is that of Henry Leigh and Company of Portchester, pipemakers from 1840 to 1932, who were also whiting and putty manufacturers as well as wholesale dealers in bath-brick and hearth-stone. There is also evidence of pipemakers running a second trade in addition to making pipes, but this was usually the sale of ale or tobacco.

There were only a few pipemaking concerns left during the early years of the twentieth century and these slowly disappeared leaving but one survivor, John Pollock and Company of Manchester. Founded in 1879, this company still produces some ten thousand pipes each week from the original Victorian moulds. The last of the London makers was probably Charles Crop and Sons of Brooksby Walk, Homerton. Founded in 1856, the firm ceased production in 1924 and was responsible for the production of many fine portrait clays. The Southorn family of pipemakers in Broseley, Salop, closed down their factory only a few years ago. The factory still stands, including part of the kiln, and, although it is in a somewhat dilapidated condition, members of the family hope to restore the old building as a working museum.

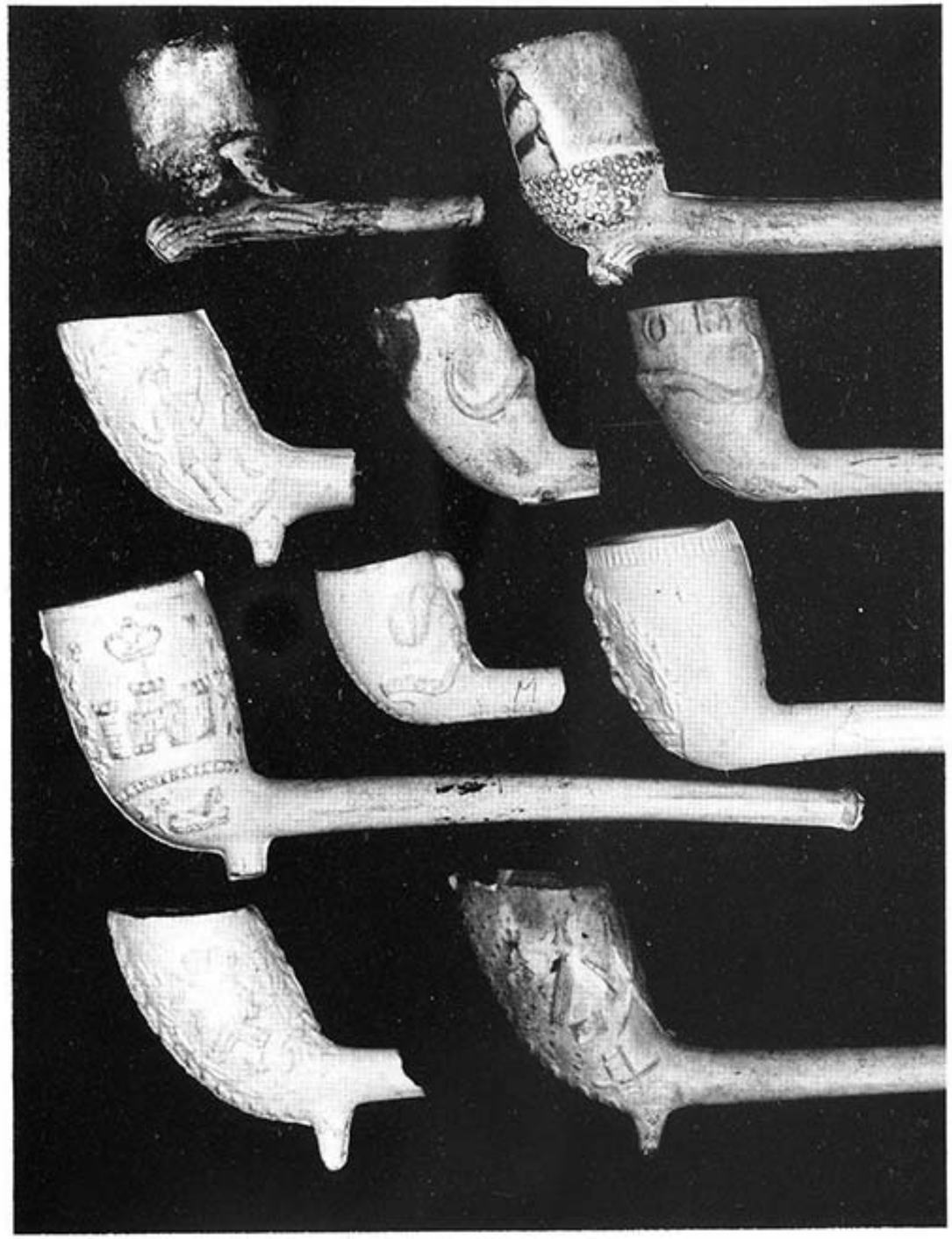
The pipemaking industry in Scotland was well established by the beginning of the eighteenth century. The earliest recorded maker was Stephen Bell of Edinburgh in 1649 and the last was William Christie of Leith in 1962.

J. Luther of Youghal, about 1687, is the only seventeenth-century Irish maker found so far. There are no known eighteenth-century makers, but at least twenty-three were operating from 1819 to 1917.

Very little is known about the industry in Wales but there were at least six makers between 1812 and about 1850. That there were earlier Welsh makers is suggested by the charter of 1663, which was addressed to the 'Tobacco Pipemakers in the Cities of London and Westminster and the Kingdom of England and the Dominion of Wales'.

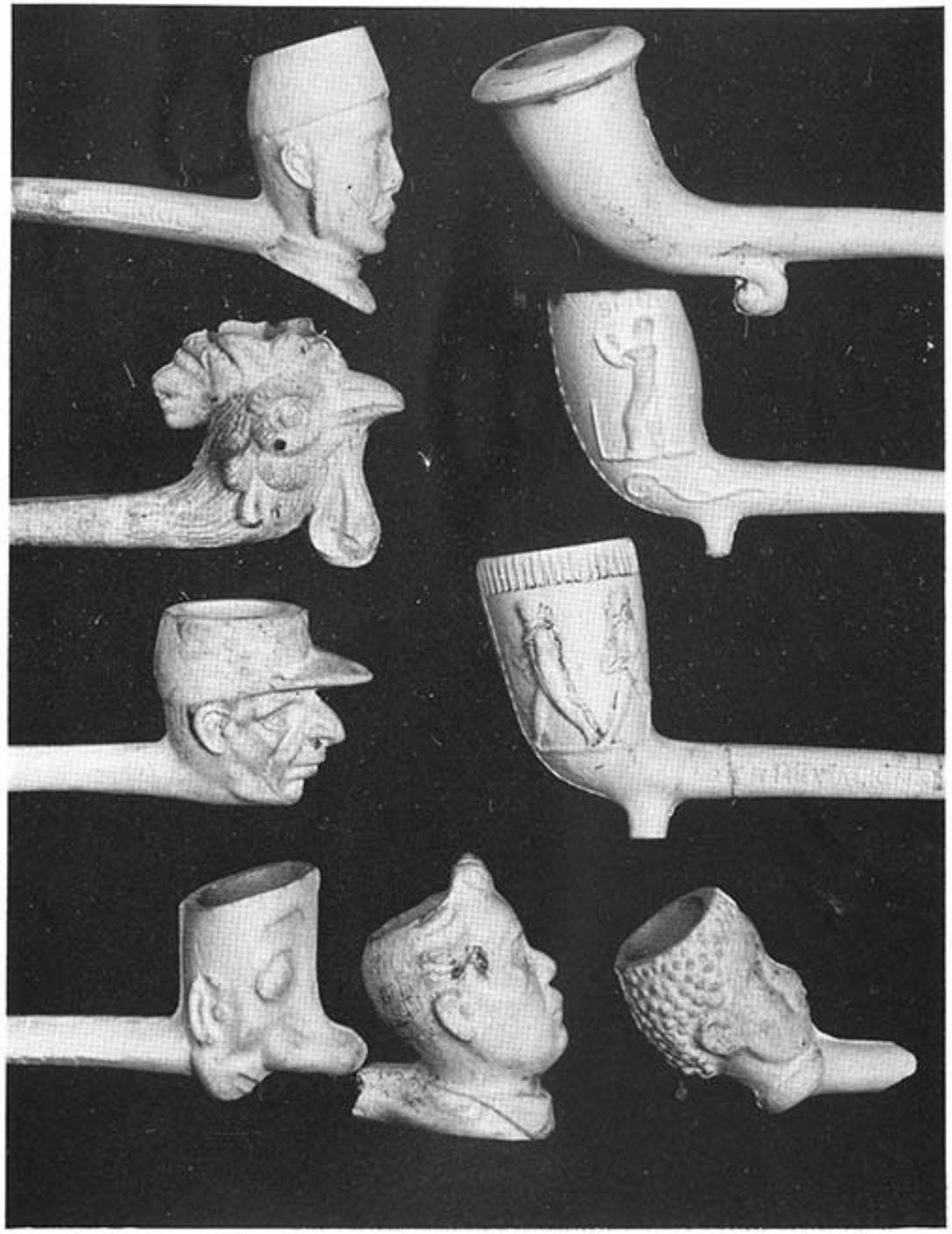
Jersey and Guernsey each had at least one maker, and both of them are recorded as working in 1852. They were John Welsh of St Helier and W. S. Chaple of Bouet.

The recent revival in the use of clay pipes prompted the formation of the Pilgrim Pipe Company in 1972. Operating from Skegness, the company mass-produced 9 inch (225 mm) long pipes and a few character clays using moulds which once belonged to William Christie of Leith. It was not long, however, before the supply became greater than the demand and the company closed in 1975.



Nineteenth-century pipes (top to bottom and left to right): two acorns; man with bow and arrow; two RAOB pipes with buffalo horns; military crest (The Inniskilling Regiment); Prince of Wales's feathers; military crest; two masonic pipes.

Late nineteenth-century pipes (top to bottom and left to right): parachuting; chamber pot; Irish harp; rats on bowl and stem; a sheep; pony's hoof; crocodile; Queen Victoria with a crown-shaped spur; scallops and dots; part of a miniature; a cigarette pipe depicting Atlas supporting the universe.



Late nineteenth-century pipes (top to bottom and left to right): General Gordon; a horn; a cockerel; boxers (Sullivan and Smith); a jockey (probably Fred Archer); walkers; Ally Sloper (comedian); Joseph Chamberlain (statesman); head of a negress facing the smoker.

Late nineteenth- and early twentieth-century pipes (top to bottom and left to right): proud lady; Mrs Sarah Wilson (poetess), an expensive portrait clay produced from a three-piece mould and finished in baked varnish; a lady motorist; King Edward VII, another portrait clay from a three-piece mould; William Gladstone (statesman); Ally Sloper.

A pipemaker preparing a mould for the gin press at Henry Leigh's factory at Portchester, Hampshire. Note the dozening board on the right of the bench.

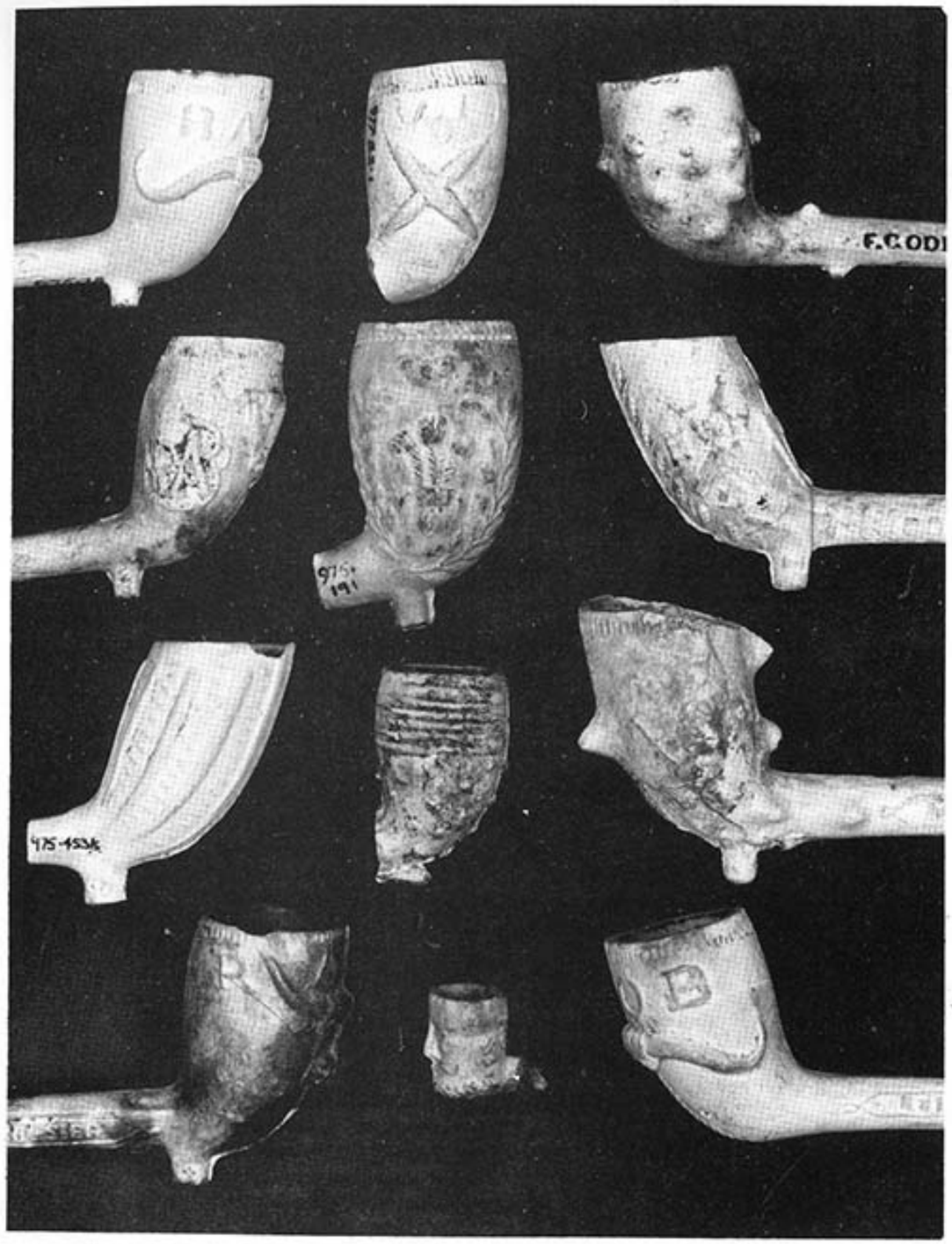
PIPEMAKING

Except for the earliest clay pipes, which were made by hand, the basic method of manufacture has remained the same since the introduction of the two-piece mould shortly before 1600. The first moulds were made of brass (though it is thought that some were made of wood) but iron moulds soon followed and were in general use by 1750. Unfortunately it is not known if any moulds exist which were made before the end of the eighteenth century, but several nineteenth-century moulds can be seen in museums.

The making of moulds was a specialised art, and, except for a few registered designs, most nineteenth-century moulds were available to the pipemaker by illustrated catalogue. Because metal moulds had a long life many old styles overlapped the newer ones. However, because clay is abrasive, moulds eventually suffered from wear so that the bowls and stems became noticeably larger and the details in the design less defined.

Early pipemakers in London and other large towns would have used clay supplied by the quarries in Cornwall, Devon and Dorset, but some were lucky enough to have lived near workable local deposits. Two well-known local deposits were at Broseley in Salop and Amesbury in Wiltshire. The latter was worked by the Gauntlet family for many years during the seventeenth century and their pipes were famous for their fine quality.

The pipes, several thousand at a time, were baked in an up-draught kiln made with bricks of fire-clay. The kiln was shaped like a cylinder with a domed roof and chimney, and it looked very like the bottle-kiln used by the potteries, but on a smaller scale. Originally charcoal or wood was used for fuel but the kilns were later modified to burn coal or coke. Because of



Pipes by Henry Leigh and Frederick Goodall of Portchester (top to bottom and left to right): RAOB pipe; HMS Vernon (Portsmouth submarine base), showing crossed torpedoes; a thorn pipe; an unusual RAOB pipe with the insignia on the side of the bowl; Prince of Wales's feathers; masonic pipe; ribs and dots; bands and dots; Mother Shipton (sixteenth-century witch), probably made for the public house of that name in Portsmouth; RAOB pipe with horns and head of buffalo; cigarette pipe depicting a bearded man; RAOB pipe.

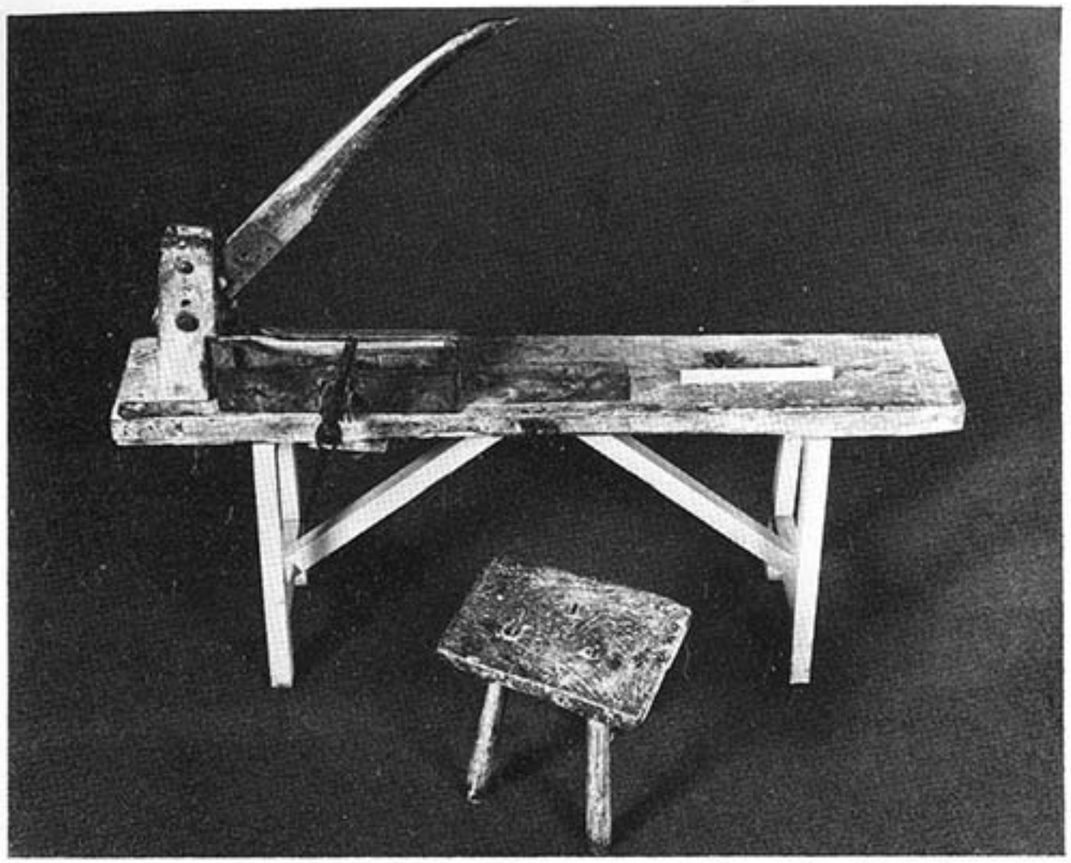
A pair of pipe moulds from Henry Leigh's factory at Portchester.

the high cost of firing it was not unusual for two or three pipemakers to share one kiln.

Nineteenth-century pipes were loaded in containers called saggars and these in turn were stacked in the kiln. Introduced during the first half of the nineteenth century, saggars were either rectangular or circular and made from fire-clay. It is thought that previously home-made containers were used made up from old pipe stems (wasters) embedded in clay. The long-stemmed pipes had to be loaded in a vertical position with the bowls lowermost. The stems were supported by a pillar in the centre of the saggar and secured by a ring of soft unfired clay. After the first layer of pipes was positioned further layers were added and the wall of the first saggar raised as necessary by bottomless saggars. Pipes might also have been stacked directly on shelves or similar supports.

Except for a bench-vice or gin-press, only a few simple hand tools were required for the trade. These were piercing rods for making the bore in the stem, knives with specially shaped blades for trimming the mould flashes from stem and bowl, hand-stoppers for forming the hole in the bowl and various smoothing tools.

The gin-press was a vice with an overhead lever to which was attached a stopper to suit the bowl of the pipe to be moulded. With the mould held in the vice by either a screw or a 'flying handle', the lever was pulled down to allow the stopper to enter the bowl end of the mould. The stopper was attached to the lever by a bolt permitting fore and aft movement so as to allow for the circular movement of the lever.

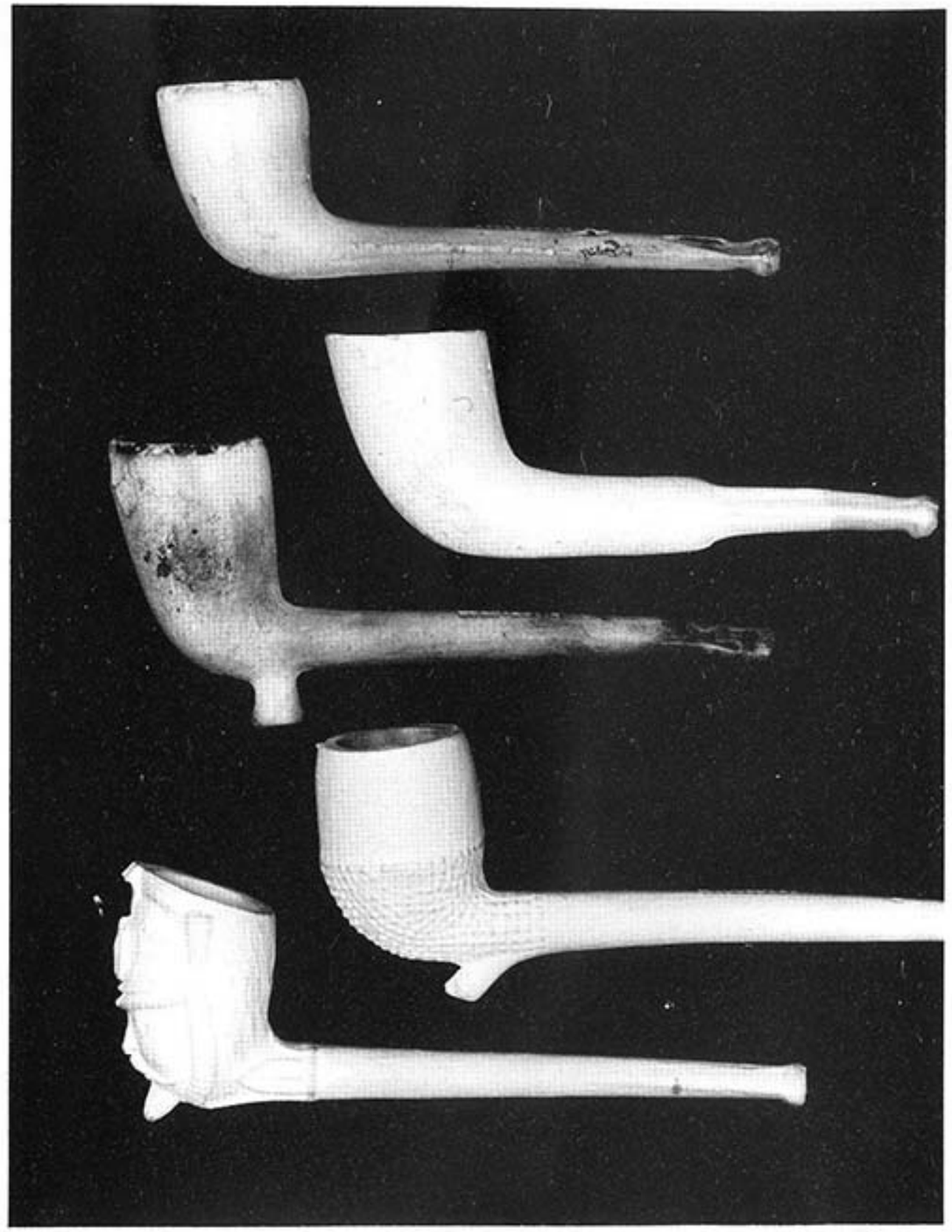


A gin-press from Henry Leigh's factory. This was the only form of mechanisation used in pipemaking.

This simple but highly efficient apparatus was, as far as is known, the only form of mechanisation used in the moulding of clay pipes. The only limitation was its inability to form bowls that were set at an acute angle to the stem. This may have been why pipes were made with more upright bowls from about 1700, when the gin-press is thought to have been introduced.

Moulds used in conjunction with the gin-press would have had to be modified by providing an extension above the bowl end to act as a guide for the stopper. This addition can be clearly seen on nineteenth-century moulds, as can the cleft for the insertion of the knife when trimming the top of the bowl. The gin-press was probably in common use by 1750 but long after this there were still many pipes being made with the bench-vice and hand-stopper.

The first and most important stage in the manufacture of clay pipes is the preparation of the clay. Clay was received from the quarries in large lumps which were broken down into smaller pieces and washed in a large wooden or copper tub. After cleaning and the removal of stones and other foreign matter, the water was drained off and the clay placed on boards to dry and mature. When ready the clay was beaten with a heavy iron bar to expel any air and finally kneaded to a uniform mass. The next stage was to break the prepared clay into small blocks from which portions of clay were taken and rolled into rough shapes of the pipes to be moulded. These rough shapes, called rolls, were then placed in groups of twelve on boards called dozening boards and passed to the moulder. Women and children between twelve and fifteen years old performed this task and were known as



Pipes by Southorns of Broseley, showing three short plain pipes, an acorn and the head of a dragoon.

rollers.

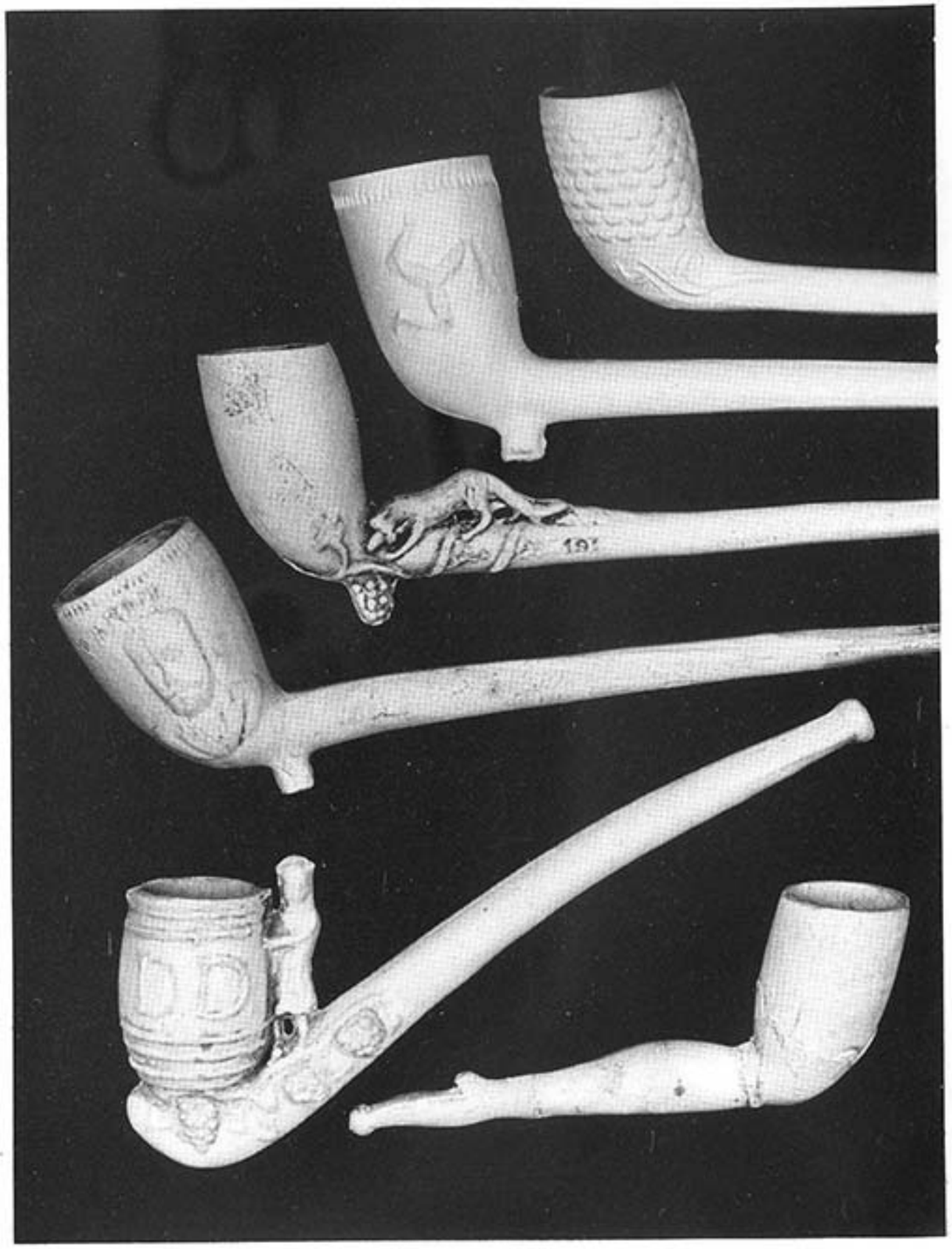
After a short drying period, the moulder laid a roll on the bench and pierced the stem part with a brass or steel rod before placing the roll into one half of the mould. Both the rod and the mould were lightly greased to allow the finished pipe to be easily removed. The other half of the mould was positioned and the whole assembly was pressed in either the bench-vice or the gin-press. After forming the bowl with the hand-stopper, or pulling down the lever of the gin-press, the moulded assembly was then removed from the vice and the rod was manipulated to marry with the interior of the bowl which had previously been hollowed out by the action of the stopper. The moulder would then trim the excess clay left by the joins in the mould and from the top of the bowl before withdrawing the piercing rod and placing the pipe on a tray to dry.

When full of pipes, the trays were placed on drying racks where air could freely circulate. During the drying a wire was passed through the bore of the stem to prevent distortion of the clay when shrinking. In the case of long pipes requiring curved stems, the wires were removed before the pipes were completely dry and the stems were gently bent to the required shape. The pipes were afterwards passed to the trimmers and finishers who took off any rough edges with a sharp knife and polished the more expensive pipes with a wooden burnishing tool. The pipes were then inspected for flaws and placed in a saggar for firing.

The sequence for raising the temperature to about 900C (1650 F) and subsequent cooling took about three days to complete. The temperature had to be raised very slowly during the initial stages of firing, in order to drive off any residue moisture in the clay before it reached boiling point, otherwise the clay would explode. When the pipemaker felt that the correct temperature had been reached he would remove a loose brick from the wall of the kiln and take out a piece of clay to check its temper.

After firing, the last stage of manufacture was to treat the mouthpiece of the stem so that the smoker's lips would not stick to the porous clay. The cheapest of pipes, if treated at all, were dipped in water containing a little pipe-clay in solution and then given a polish. Better quality pipes were coated with a mixture of soap, wax and gum. It is doubtful if pipe stems were treated as a normal part of the process much before the nineteenth century, but some eighteenth-century pipes have been found with the stems dipped in glaze. During the last quarter of the nineteenth century it was common practice to treat the stem with a red sealing wax by heating the end of the stem on a hot plate (heated by a gas flame) and then rolling it on to the wax. Latter-day pipes are usually treated by applying transparent or coloured lacquer with a brush.

Finally the pipes were packed in wooden boxes, using wood shavings or sawdust for protection, and dispatched to the customer.



Pipes by John Pollock of Manchester (top to bottom): fish scales and scroll (this pipe is marketed under the name of 'social pipe', which may have been given to most pipes with similar nondescript patterns); Isle of Man; fox and grapes; Charles Parnell of Ireland; Dirty Dick; a lady's leg.

Pipes by John Pollock of Manchester (top to bottom): rustic billiard; forester; claw; cornucopia; negro's head; friendship pipe.

DATING PIPES

Work recently carried out by archaeologists has made it possible to date English clay pipes accurately to within twenty years or so. This has been achieved by a close study of bowl shapes in conjunction with maker's marks, the relationship of pipes and other objects found with them during excavations and documentary evidence.

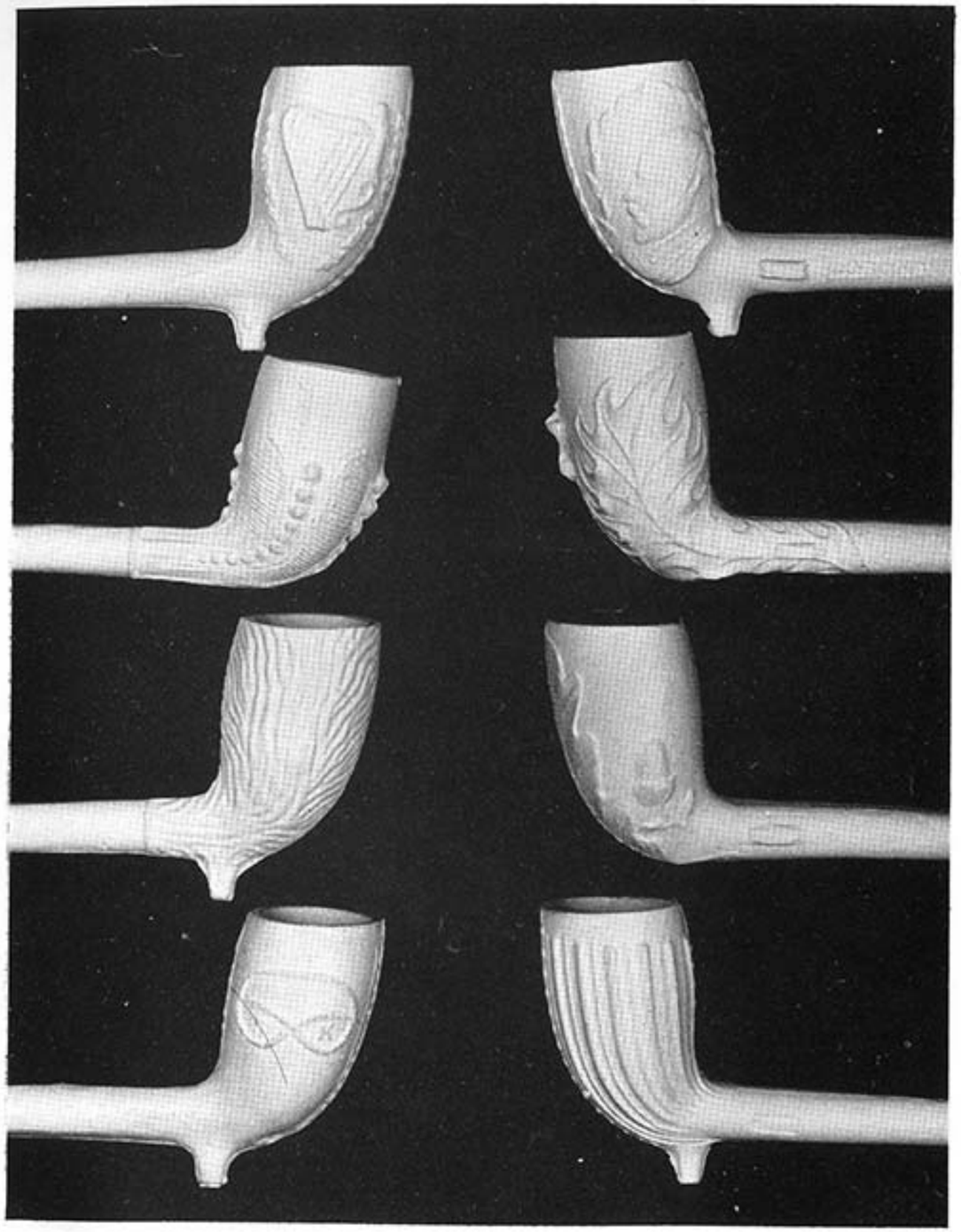
The drawing inside the front cover shows some typical bowl shapes from about 1580 to 1930 as well as examples of maker's marks. When establishing the date of new finds it is helpful first to group them in order of stem-bore size and thickness (the larger the bore and the thicker the stem, the earlier the pipe is likely to be) and then make a further assessment by checking the size and shape of the bowls.

Maker's marks can sometimes establish a closer date, but care has to be taken when only the maker's initials appear since there may have been others using the same initials for a different period. The normal method of marking pipes at the beginning of the seventeenth century was for the maker to stamp his initials or his complete name on the heel of the bowl using a signet ring or stamp. In most cases the initials were enclosed in a circle or heart-shaped border and usually incorporated a decorative scroll-like design. A number of pipes have also been found bearing the maker's personal symbol such as the gloved hand used by the Gauntlet family of pipemakers in Wiltshire.

Later in the seventeenth century cartouche marks were stamped on the side or rear of the bowl. These were in the form of circles enclosing the maker's initials or name and also the name of the town. On rare occasions the date was included. About this time pipes were also being made with the maker's initials incorporated in the mould on each side of the spur. This method of marking became the normal practice until about 1860, when most marked pipes showed the maker's name on the side of the stem and sometimes his address or the name of the town in which he worked. Some makers, however, continued to use the cartouche mark, or the initials on the spur, until the end of the century.

The initial of the maker's first name was usually shown on the left-hand side of the spur (when looking at the pipe with the bowl facing to the left) and the initial of his second name on the right-hand side. The letter I was invariably used in place of the letter J. Some pipes have been found showing initials superimposed on earlier ones indicating the continuing use of moulds by the pipemaker's son or apprentice.

In examining the names on the stems of nineteenth-century pipes, caution should be taken with double names and those ending in 'and Co' or 'and Son' as they could be the names of tobacconists or wholesalers. This can sometimes be verified from local trade directories.



Pipes by John Pollock of Manchester (top to bottom and left to right): Irish harp; King Edward VII coronation; scallops and dots; thistle design; rustic; acorn; Staffordshire knot; ribbed design.

Pipe wax from the workshop of Richard Norwood of Eton, c. 1914.

COLLECTING PIPES

The remains of clay tobacco pipes can be found in almost any part of the country, for an enormous quantity of pipes has been made over the past three hundred years or more; one nineteenth-century factory alone would have produced several thousand every day of the week. Even so, there is a greater likelihood of finding pipes or their remains in places which have been continuously occupied, particularly in old industrial areas.

Like the bottle collector, the clay-pipe hunter should look out for any known Victorian dumping ground, which might well yield bowls and sometimes complete pipes. Other places to look are tidal rivers and estuaries. Because of the difficulty in establishing the origin of finds from large Victorian dumps, the more rewarding finds, for the historian at least, are those from sites where the pipes were last used. Garden beds, ploughed fields, hedgerows, streams and some small local dumps are good examples. A river bed adjacent to a bridge is always worth a look, especially if there is a public house close by — many an imbiber of the local brew would have cast his old 'clay' over the side on his way home.

A great many seventeenth-century pipes have been found in fields where the troops of Charles I or the Parliamentarians were quartered during the Civil War, so any known battle site or marching route is a likely area. Smaller numbers of pipes of the eighteenth or nineteenth centuries could possibly mark the site of an old fairground or gipsy encampment. The occasional piece of stem found in a field is probably the remains of the ploughman's pipe.

Those living in old towns or villages should look out for any excavations during road repairs or the erection of new buildings. Complete pipes are often found under the floorboards or in the rafters of old buildings, where they were left during

the original construction or renovations. Before looking for pipes on private property, however, one must always obtain the owner's permission.

Owing to the light density of clay pipes, they are often found lying on the surface, so there is rarely any need to dig for them: it is only necessary to wait for the garden bed to be dug or the field to be ploughed, ideally after a good heavy shower of rain, which will wash the dirt from any remains of clay pipes, making them clearly visible.

There are always many more pieces of stem to be found than bowls and there are two possible reasons for this: the ends of the stems were often broken off during the useful life of the pipes, and the remaining piece of pipe, with the bowl attached, would have been finally discarded in a fire or rubbish bin.

From time to time clay pipes found in Victorian rubbish dumps are unearthed looking as if they were new. This is usually because the heat from fires when the rubbish was burnt, though sufficient to melt the glass of old bottles, did no harm to clay pipes (or any other ceramic products originally baked at much higher temperatures) other than to burn off any discolouration or other signs of use.

The revived Victorian pipes produced today, as well as a number of reproductions, all have a valued place in a collection so long as they are properly identified. They should preferably be looked for in tobacconists or gift shops where normal retail prices are charged and where the shopkeeper may be able to give some information on the maker.

Although some good finds can be purchased from second-hand and antique shops, it is better to look there only after some experience on the subject has been gained. Some revived pipes have been given a special ancient look before leaving the maker's workshop: distinguishing between these and the genuine article requires a practised eye.

It is most important to identify finds temporarily until they can be cleaned and dated. After cleaning they can be individually marked with black ink or grouped in a labelled box or bag. Dirt and mud is easily removed from bowls and stems with warm soapy water and a soft brush. It may be necessary to remove dirt from the bore of the stems with a thin piece of wire. Rust marks and other discolourations are best left since they are evidence of the pipe's age and history. Rust marks are usually caused by the submersion of the pipe in a river bed for several years, and a uniform dirty grey to black appearance can be caused by the tobacco oils absorbed by the clay over a long period of use. Unfortunately evidence of this nature is almost always removed from old pipes by the action of the soil and the weather.

A few Victorian curios are still to be found, such as the coiled pipe and the multi-bowled pipe. Many of these were the work of apprentices for test-pieces and they can command high prices. Other unusual specimens are pipes with tiny bowls for smoking cigarettes and miniature pipes which could only be of use in doll's houses. There are also pipes with oversize bowls thought to have been used by tobacconists for window displays.

For those who want to repair broken pieces of pipe a number of modern clear adhesives will do, but it is sometimes best to leave the pieces as found, either grouped together on display or kept in a box or tray.

The best way to display clay pipes depends largely on space available. Wall cabinets are perhaps the most practicable since they take up the least space and the pipes can be attractively arranged by securing them to the back and sides of the cabinet with terry clips or wire. On the other hand the simplest method is to use a table-top cabinet, which can easily be made from picture-frame mouldings and a hardboard base.

Members of the Pipe Club of Great Britain Limited during a smoking competition.

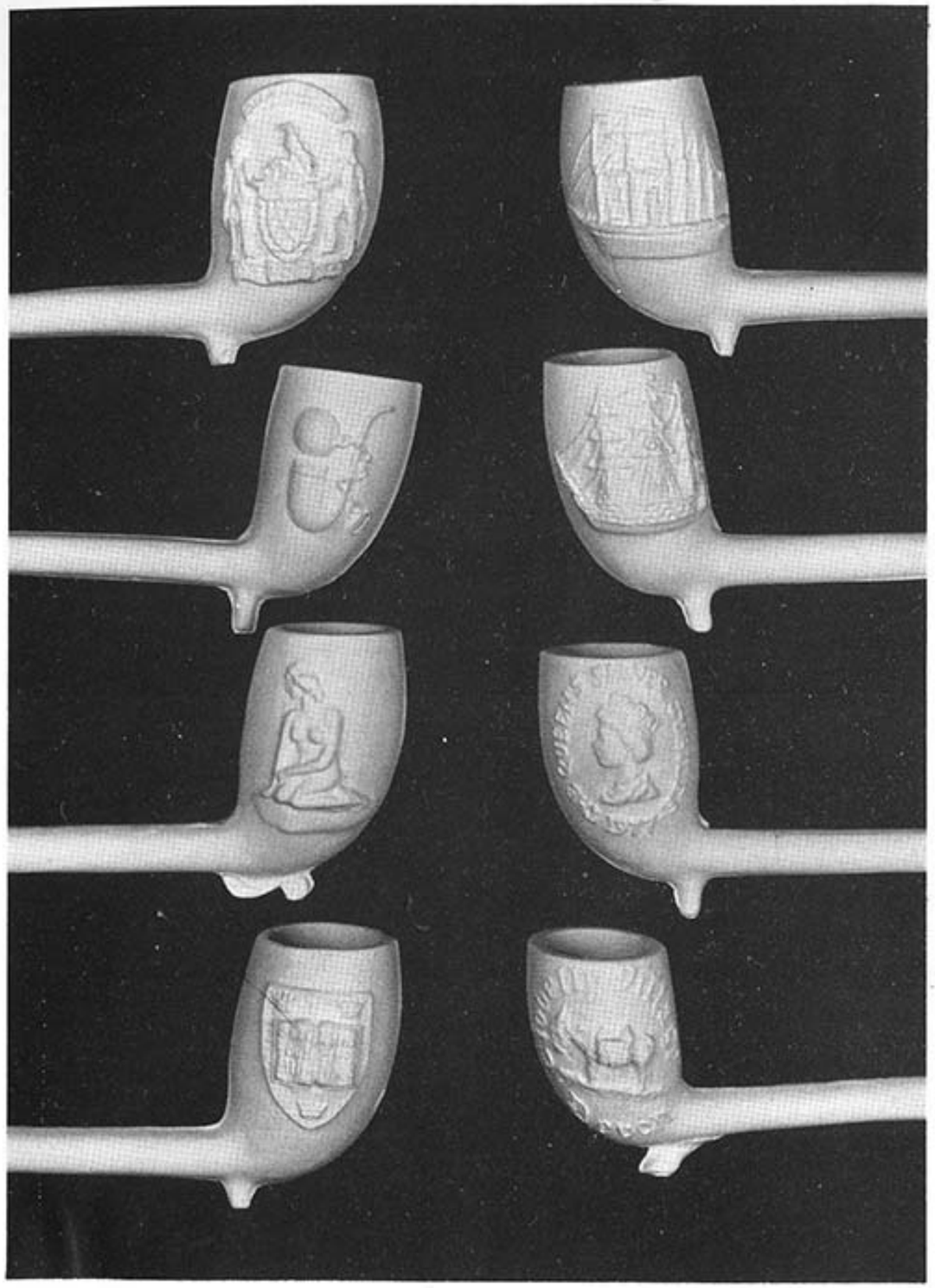
LOOKING FOR PIPEMAKERS

The names of most of the known makers are listed in Oswald's *Clay Pipes for the Archaeologist.* The lists are grouped by counties and are very useful for immediate reference.

Those wanting to do some research of their own will find it helpful to talk to the curator of their local museum to find out what work has already been accomplished and to look at any finds made in the locality. Museums cannot display all their exhibits so do not be afraid to ask if there are any clay pipes held in store. It is also advisable to join the local historical society, where members, often with projects of their own, can be of great assistance.

Names of pipemakers can be found in a variety of old documents such as trade directories, census returns, quarter sessions records and parish registers. Most of the original documents are held by the county record offices, but it is sometimes possible to obtain indexed copies from the public library. Some parish churches still retain their old registers of births, deaths and marriages and, so long as they are in good condition, the vicar may let you see them.

Public houses can provide useful indications in the search for local pipemakers, particularly if their names have a connection with the trade. The Pipemaker's Arms in Uxbridge was used as a pipe manufactory at the time of John Fuller, pipemaker and beerseller in 1850. There is a public house in Rye, East Sussex, called Ye Pipemaker's Arms, but this was built in 1844 purely to quench the thirst of the town's pipemakers and other inhabitants.



Designs by Eric G. Ayto (top to bottom and left to right): the Cornish Arms; SS Great Britain; Pipe Club of Australia; HMS Victory; the Little Mermaid; HM Queen Elizabeth's Silver Jubilee; Oxford University; Clovelly village.

PLACES TO VISIT

Most museums have collections of clay pipes found locally and some of those with permanent displays are listed below.

Abbey House Museum, Kirkstall, Leeds (telephone: Leeds 55821). Reconstruction of pipemaker's workshop.
Boston Museum, The Guildhall, South Street, Boston, Lincolnshire (telephone: Boston 64601). Collection of locally made pipes.
Bristol City Museum, Queens Road, Bristol (telephone: Bristol 299771). Large collection of seventeenth-century pipes.
Curtis Museum, High Street, Alton, Hampshire (telephone: Alton 82802). Gin-press and pipe moulds.
Gosport Museum, Walpole Road, Gosport, Hampshire (telephone: Gosport 88035). Gin-press, pipe moulds and pipes used and made by Henry Leigh of Portchester.
Guildford Museum, Castle Arch, Guildford, Surrey (telephone: Guildford 66551). Pipes and information on local makers.
House of Pipes, Bramber, West Sussex (telephone: Steyning 812122). Pipes, curios and associated smokiana.
Huntly House, 142 Canongate, Edinburgh (telephone: 031-556 5813).
Museum of London, London Wall, London EC2. Large collection of seventeenth-century pipes.
York Castle Museum, Tower Street, York (telephone: York 53611). Reconstruction of pipemaker's workshop.

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