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Preface

Collectors, however amateur, are no longer content with the romantic or picturesque appeal of their antiques, or with theoretical generalizations regarding age and details of technique. The success of my book Collecting Antiques, published in 1949, demonstrated conclusively the demand for straightforward, factual guidance, based not only on many years' study of antiques and their social background but also on a deep-rooted knowledge of the craft-practices used in this country through past centuries. The widespread demand for that book prompted the publishers to commission a further volume on similar lines, covering a further range of collectors' subjects.

As before, I have written primarily for beginner-collectors and for those who want to enjoy such heirlooms or chance acquisitions as they may possess. But even the expert collector will find some chapters here which cover subjects not dealt with more than cursorily in other collecting manuals, such as sandglasses, posy-holders, pewter plates and dishes, and cork-screws. The preparation of many of these chapters has entailed an immense range of research, largely among the work of specialist authorities contemporary with the various subjects studied. In some instances it is impossible to suggest any general reading at all for those who seek further bibliographical guidance. But I have purposely sought to avoid obscurities and to present clear, chronological stories from which the reader may place his own possessions and decide on further moves in this fascinating pastime of collecting antiques.

It is my hope that many of the chapters in this volume may encourage him to extend the range of his enthusiasms: for example, the whole subject of sporting antiques offers endless possibilities, whether the collector specializes in a single sport or concentrates on a single species of antique such as stirrup-cups (Chapter IV) or sporting lustre jugs (Chapter X of Collecting Antiques). In many instances I have purposely gone beyond the strict limits of the recognized antiques as bound by the definition of pre-1830 manufacture, for it is becoming generally recognized that any object distinctive of its period and no longer produced, hand-wrought, beautiful and fragile, is well on the way to becoming a valued rarity. When I wrote in detail on glass paperweights in Collecting Antiques (Chapter XXIV) in 1948 I scarcely thought that prices would be soaring to four figures in 1952.
As before, in preparing this volume I have enjoyed the privilege and delight of examining very many fine private collections: my thanks are due to all who have so generously displayed their treasures, as well as to the specialists in various crafts with whom I have discussed details of technique. Finally I am, as ever, deeply grateful to Mr Frank Whitaker, Editor of Country Life.

Sevenoaks 1952

G. BERNARD HUGHES
I

Staffordshire Earthenware Image Toys and Chimney Ornaments

The small potteries of rural England made earthenware image toys as long ago as in the fourteenth century. Crudely formed and undecorated, these ornaments represented human beings, domestic animals, birds, fishes, and grotesque imaginary creatures. Dolls for children's playthings were also made in this medium. Although there are records of individual earth-potters established in North Staffordshire at this time, no group was recorded until 1670. This was at Burslem, where several potters established themselves, each digging his own red, yellow, and buff clays, operating only a single kiln, and employing at most six men and four boys.

Hand-modelled clay image toys made by these men were coated with various coloured slips and decorated with raised lines and spots of slip in contrasting colours applied through quills. The unfired toys were then glazed by dusting with finely sifted smitham, or lead ore, and firing at a moderate temperature sufficient to melt the lead and fuse it into a rich, yellowish-tinted glaze. Before the accession of George I, Burslem had become the centre of the English earthenware industry. Between 1710 and 1715 there were never fewer than forty pot-works operating in the district, their annual output approaching a value of £6,500. By 1725 the trade had so extended that the entire area of the present-day Potteries was occupied by single-kiln potters. Not until the early 1740s did master-potters function more productively: in 1743 Thomas and John Wedgwood built a tiled factory of five ovens.

Ever-increasing numbers of clay-and-slip figurines were issued, as well as models of money-boxes, rocking-chairs, and cradles for presenting to newly-married couples, often inscribed with their names. This early slip-decorated ware was fragile, and in consequence is extremely rare: twentieth-century reproductions with forged signs of long usage are frequent, but the expert will detect the presence of liquid glaze.

Towards the end of the clay-and-slip period figurines were produced in
salt-glazed white stoneware, the most distinctive ceramic product to be made in Staffordshire during the reigns of George I and II. This was a drab-coloured material which, by 1750, had been improved to an off-white tone. Salt-glazed white stoneware was patented in 1684 by John Dwight of Fulham, who continued in its production until 1703. Ten years earlier, in a court case, he had described himself as a manufacturer of ‘white gorges [earthenware] marbled porcelaine vessels, statues and figures and fine stone gorges’. The earliest English ceramic figurines known to exist were made by Dwight and are triumphs of technical skill. These, all in a white stoneware of three progressive qualities, were preserved by the Dwight family for nearly two centuries before disposal to a collector. Some, such as the statuette of James II in the Victoria and Albert Museum, are salt-glazed. Six Burslem potters were specialists in salt-glazed white stoneware by 1715. Robert Astbury (not John, as so often stated) introduced Devonshire white clays to Staffordshire during the early 1720s and improved the appearance of his stoneware by dipping it into a thin white slip before glazing. Eventually, in about 1740, by adding to his mixture a proportion of calcined flints crushed to a fine powder, such as had been used for nearly half a century in the manufacture of flint-glass, Astbury created a stoneware white throughout its texture, its surface displaying the transparency of the salt-glaze to perfection. Contemporary advertisements refer to this as flint-ware.

Until the early 1740s the same clay body might be either salt-glazed or lead-glazed. Then, as potters began to realize that different earthenware bodies had definite functions, specialization became more general. These improvements, like many another made by subsequent potters, were not protected by patent.

With Robert Astbury, the most outstanding of the Staffordshire potters at this time were Josiah Twyford of Shelton, Dr Thomas Wedgwood, and Ralph Shaw. The lives of these and other Staffordshire potters are frequently recorded: in this chapter it has been considered preferable to deal in detail with the various styles, techniques, and materials, hitherto given only cursory mention. This group of potters produced some superb figurines in salt-glazed stoneware. Some are gems of hand-modelling and may be enriched with touches of colour in the form of clay or slip. They include curious little manikins adapted from Chinese porcelain, copies of the Chinese dog of Foo, hawks with beak and pedestal coloured brown, and other birds such as peacocks and cocks. With half a dozen or so rare exceptions, none was marked.

The Astbury group also issued lead-glazed figurines made up of clays in
Victorian Staffordshire portraits. Sir George Brown, the Crimean general, 8½ inches high; Sir Henry Havelock, of Indian Mutiny fame, 8¾ inches; the Prince of Wales, 12 inches; General Pelissier, 12½ inches; Princess Alexandra of Denmark, 11 inches. In the collection of Mr Thomas Balston.
contrasting colours, red, brown, and buff predominating. Gradually the use
of coloured clays was superseded by white clay. Figurines of musical instru-
mentalists still exist, as well as small equestrian groups. A small open-flame
lamp-extinguisher in the Hanley Museum, typical of the many made, is in the
form of a full-skirted woman. Such pieces might also be salt-glazed. Consider-
able numbers of so-called Astbury figures were issued from a private kiln
during the 1930s.

Thomas Whieldon, known to have been operating a pottery at Low Fenton
as early as 1740, made a considerable contribution to this class of ware. Dr
Simeon Shaw describes Whieldon's pottery as 'a small range of low buildings,
all thatched. . . . He also made toys and chimney ornaments, coloured either
in the clay state, or biscuit, by saffron, manganese, copper, etc., and glazed
with black, red, or white lead.' These toys, which included all forms of
figurines, were the lineal descendants of the slip-decorated and salt-glazed
cats, whistles, and money-boxes which were themselves descendants of still
earlier productions.

High artistic ability is noteworthy in Whieldon’s strutting actors and the
figurines depicting various craftsmen, huntsmen, and soldiers. Other designs
included birds and such domestic animals as horses, dogs, cows, and sheep.
Cow cream-jugs adapted from the silver models introduced to England in
about 1755 by the silversmith Schuppe were made by Whieldon. Other potters
continued their manufacture until about 1850: a collection of such jugs will
show the progressive changes in Staffordshire white earthenware and decora-
tion. Reproductions made from 1920, however, are more frequent than period
pieces.

Whieldon figurines have all the qualities of rapid sketches by master crafts-
men. It is improbable, however, that they were modelled by Whieldon person-
ally, as is so often stated. Some of Astbury's small ceramic figurines so closely
resemble those of Whieldon that they are known to collectors as Astbury-
Whieldon. Many were decorated with the well-known tortoise-shell glazing
in simple flowing colours. These until recent years defied imitation by the
faker. This glaze was produced by splashing the surface with manganese and
allowing the colour to run into the glaze, forming a rich brown or a mottled
purple and green. Tortoise-shell is a generic rather than a specific term, applied
to all such pieces as show motting applied under the glaze, as well as those
finished with brilliant coloured glazes in splashes of irregular shape.

Tortoise-shell decoration dating before about 1750 was produced by the
Sparing application of mottled manganese glaze. Mingled colour glazes date from the early 1750s. These cloudy blends of colour, dabbed on with a sponge or rag, consisted of a transparent lead glaze coloured madder-brown with manganese, yellow with iron oxide, green with copper, and blue with cobalt. They were mixed to give a wide variety of shades, some of the more common combinations being mottled green and brownish grey; brown, green, and slate-blue; mottled grey, green, slate-blue, and yellow. Decoration in this medium was exploited by the Whieldon-Wedgwood partnership of 1754-59. A series of figurines decorated with patches of coloured glaze issued between 1770 and the early 1790s is believed to have been the innovation of Ralph Wood II. Decoration in coloured glazes was common to most Staffordshire potters, however, and, unless marked, few pieces can be safely attributed to any particular maker.

Figurines veined throughout their texture in the style of agate and other natural stones were popular at this period, small cats being modelled in considerable numbers. Agate ware was an improvement on marbling, a decoration of superficial markings produced by combing or sponging together various coloured slips to resemble marbled paper. Such surface-decorated earthenware is sometimes wrongly termed agate. The streaked body known as agate-ware was made by beating out flat layers of different coloured clays, laying them one upon the other, pressing them, re-slicing them transversely and repeating the process, care being taken to keep the run of the grain in the same direction. The plastic clay was then shaped and coated with coloured glaze, which imparted an agate-like tint. John Astbury and Whieldon made the finest figures in this medium.

Two Dutch enamellers established a decorating shop at Cobridge shortly before 1750, thus founding an important section of the Staffordshire pottery industry. Following the style of the porcelain enamellers in London, they began painting earthenware and stoneware figures in underglaze colours. A group of salt-glazed figures decorated to resemble porcelain are assumed to have been made by William Littler of Longton Hall before about 1752, when he was fully engaged in the manufacture of soft-paste porcelain. His earthenware figures were excellently modelled, such as the 'Turk and Companion' enamelled in brilliant green, blue, and yellow. This pair of figures was first issued by Meissen and was copied in porcelain at Bow.

So far, earthenware figurines had been shaped by hand with the aid of eighteen double-ended wooden tools. The clay was made into a stiff body
sufficiently plastic to bend and twist easily and enable a fresh piece to adhere well when added to the mass.

A change occurred in production methods from about 1750, when Ralph Daniel of Cobridge introduced plaster-of-paris moulds to Staffordshire. These were easily made, highly absorbent, and delivered the ware rapidly. The *Dictionarium Polygraphicum*, published 1757, was still advocating the use of porous clay moulds, but these do not appear to have been used in connection with figurines: hand-modelling was less expensive and rapidly accomplished.

Moulds would be brought into use only when a long series of figurines was proposed. An original, which might be in hard wax, was carefully and accurately hand-modelled in a size about one-tenth larger in each dimension than the finished figurine, to allow for shrinkage during drying and firing. From this were made the plaster moulds: a complex figure required these to be in several sections, enabling various parts to be moulded separately. In such hand-moulding the damp clay was pressed by hand against the faces of the moulds, and, to save material and reduce loss during firing, as many parts as possible were made hollow. The pieces were afterwards joined with a small quantity of thick slip of the same composition as the ware.

The porous plaster absorbed water from the body, which in consequence shrank slightly, so that it could be removed from the moulds merely by inverting them and tapping lightly. Seam marks were then scraped away, carving and undercutting carried out, and minor defects generally made good. Moulding tends to round the edges and flatten some of the projections, so that such figurines lack the sharper touches of the hand-modeller, who produced a more vigorous life-like effect. Nevertheless, even among moulded figures no two are exactly alike. This is partly due to the number of moulds used, but mainly to the fact that the slightest deviation in placing neck, shoulders, and limbs created a difference in the whole pose and attitude of the figure.

Fluid lead-glaze made by grinding lead ore with flint, clay, and water, appears to have been in use during the 1750s, applied directly to the unfired body. By about 1760 Enoch Booth of Tunstall developed a method by which the body was fired to the biscuit state, dipped into the glaze and then re-fired. This gave to each piece a highly lustrous, uniform surface. A further improvement was made at about this time by Josiah Wedgwood, who bleached the slightly yellow glaze by adding a little cobalt oxide. Liquid glazes of the eighteenth century were not resistant to impure atmospheric conditions or to abrasion. Long periods of exposure to corrosive vapours in towns dull the
glaze or make it iridescent. Reproductions rarely, if ever, have been processed to display these effects accurately enough to deceive the expert.

Ralph Wood II (1748–95) was responsible, from 1770, for a long series of cleverly modelled figurines displaying colour effects on earthenware such as had never before been seen in this country. At first he followed in Whieldon’s traditional style, but Wood’s figures have a soft, translucent lead glaze slightly bluish green in tint. The method of applying the underglaze colours, principally green, yellow, manganese-purple, greyish olive, and a quiet tone of blue, differed from that of the Whieldon school in that they were laid on the white earthenware by brush in separate washes instead of blending one into the other. The marks ‘R WOOD’ in upper case and ‘Ra Wood’ or ‘Ra Wood Burslem’ in upper and lower case, appear on a number of pieces. The mark ‘R WOOD’ is thought to be that of Ralph Wood I (1715–72), for it has not yet been noted on figurines decorated with enamel colours. Subjects cover a wide range from equestrian groups to models of various animals. So individually did Ralph Wood infuse his own personality into his figures that unmarked work has a character easily distinguished from that of similar productions by contemporary potters.

It was Aaron Wood (1717–85), brother of the first Ralph, whose personality influenced the trend of Staffordshire earthenware figurines more than any other potter. His untiring energy brought them world celebrity. Aaron Wood had worked for Whieldon and others before establishing a pottery at Burslem in 1750. On the evidence of marked pieces authorities have attributed to him that remarkable group ‘The Vicar and Moses’, so often copied by less gifted potters during the next hundred years and reproduced today.

Enoch Wood (1759–1840), son of Aaron, established his own pottery in 1780, having been trained as a modeller. In 1781 he issued his famous bust of John Wesley, and during the following sixty years there was an unceasing flow of large, hand-modelled celebrity busts from his factory.

Josiah Wedgwood appears to have made coloured glazed figurines at the commencement of his career: the green pocket-book in which he entered his productions for 1752–53 refers to image toys. He it was who revolutionized production methods for earthenware from about 1770, the year in which Cornish stone and china clay were introduced to the Potteries to replace local clays. These materials could be legally employed in the manufacture of earthenware, whereas a patent operating until 1796 prohibited their use in porcelain except under licence from the patent-holder. With a few exceptions the figures
made by Wedgwood appear to be hand-moulded and carry the firm's name impressed upon the base of the pedestal. These were in jasper and basalts, seldom, if ever, in earthenware. Earthenware figures bearing the Wedgwood trade-mark were commissioned by him from other Staffordshire potters, including Ralph Wood II.

Until about 1775 the majority of finer figurines stood upon rocky bases. Then, following the lead of porcelain makers, it became fashionable to superimpose such a base upon a square or rectangular plinth. During the early 1780s the figurine stood directly upon the plinth, a style which was continued until about 1830.

Apart from the productions of the several leading potters earthenware figurines in their day were considered of little consequence, competing as they did with the finer work in porcelain. The composition of earthenware, chemically distinct from that of porcelain, does not permit the refinements of structure displayed by porcelain figures, which could only be afforded by the rich. John Ward in his *History of Stoke-upon-Trent* thought it not worth while to record the names of the Staffordshire potters employed principally in the manufacture of earthenware figures. As such productions were seldom marked, few pieces can be ascribed to any individual pottery. Long custom has dubbed them Staffordshire and little attempt has been made to classify them. The principal Staffordshire potters numbered about eighty in 1787 and had increased to about one hundred and fifty by 1818.

Some excellent earthenware figurines and groups dating between 1770 and 1794 are found impressed LAKIN, OF LAKIN & POOLE; occasionally R POOLE. This firm, with Enoch Wood, Thomas Whieldon, John Walton, and Palmer and Neale, belonged to the eighteenth-century school of Staffordshire potters who won renown with the high quality of their body, clever modelling, and artistic decoration. Lakin & Poole specialized in figurines reflecting the social life of the period. Perhaps the most vivid of their groups illustrated the gruesome scene of the 'Assassination of Marat by Charlotte Cordé of Caen, in Normandy, 1793'. The firm also issued an excellent series of 'Faith', 'Hope', and 'Charity', and their better-known figurines include 'Elijah', 'Neptune', and 'The Tythe Pig'.

At the same time, Palmer & Neale of Hanley produced excellent figurines and groups, particularly those made after models by the celebrated John Voez, who was later employed by Ralph Wood II. Humphrey Palmer established the business in about 1760, using the impressed mark 'H PALMER HANLEY' in
a double circle. This closely resembled the mark made famous by Josiah Wedgwood, who was never tired of denouncing Palmer as a design pirate. Palmer was joined by his brother-in-law Henry Neale in 1776 and the mark became 'neale & co'. The Victoria and Albert Museum stores a set of enamelled and gilded 'Seasons' so impressed. Neale was joined by David Wilson in 1786, when the mark became 'neale & wilson'. From 1788 Wilson issued some very effective figurines and groups in an improved body containing chalk in its composition. These are recognized by their creamy hue.

Not until the early 1790s were Staffordshire earthenware figures decorated in high-temperature overglaze colours in imitation of porcelain enamelling. Underglaze enamelling, however, continued for a further twenty or thirty years.

During the first three decades of the nineteenth century, small chimney ornaments were produced in considerable numbers by potters now unknown, many using processes of the late eighteenth century. There were groups of sporting dogs of various breeds, and farmyard animals were popular, such as cows and sheep. Spill-holders were often in the form of figures, singly or in groups, supporting suitable containers.

The art of making figurines in earthenware was on the downgrade during this period, a low cost of production being the prime consideration. But even these are preferable to some of the large ornamental figurines made during the 1830s when casting became general. This was a century-old method of shaping by pouring slip into moulds. As the plaster-of-paris absorbed water from the clay it left a layer of slip, uniform in thickness, within the mould. Surplus slip was poured away and the mould with its contents placed in a dryer. The moulded earthenware could then be removed easily from the mould. Thin-walled hollow figures were cast cheaply by this method.

Glazing was now whiter than formerly, and to display this technical improvement to advantage large areas of the figure might remain undecorated. A liquid gold, invented by William Cornelius in 1833, much less costly in its application than any former method of gilding, was used on earthenware figures from the following year.

These improvements brought with them a more imposing group of chimney ornaments, figures measuring up to eighteen inches in height. The majority of these were coloured with a limited palette dominated by a brilliant underglaze blue. The somewhat dull overglaze enamels were chiefly red, green,
1. Salt-glazed white stoneware with undecorated white body. Left: Candle extinguisher, circa 1745. Centre: Figure of Chung-li-Ch’uan, one of the Taoist Eight Immortals, circa 1750. Right: Youth with dog, circa 1745. In the Victoria and Albert Museum.

2, 3. Left: Salt-glazed stoneware painted in enamel colours. Figures of a Turkish man and woman copied from Meissen porcelain figures modelled in 1745 by J. J. Kändler, circa 1760. Right: Figure in whitish earthenware decorated with patches of coloured lead glaze: boy with pipe and tabour, circa 1775. In the Victoria and Albert Museum.
4. Figure of a buffalo modelled after a Chinese original: in whitish earthenware covered with mottled manganese-brown lead glaze, circa 1750. In the Victoria and Albert Museum.

5. Figure of a deer in whitish earthenware with patches of coloured glaze in manganese - brown and white, of the type made by Ralph Wood II of Burslem. The oval mound is coloured green, 1770-80. In the Victoria and Albert Museum.
6. Figurines and bust in whitish earthenware painted in overglaze enamel colours. *Left and right:* Girls emblematic of winter and spring, the latter impressed NEALE & CO. *Centre:* Bust of Jean-Jacques Rousseau on round marbled pedestal, probably made by Enoch Wood, Burslem, *circa 1790.* In the Victoria and Albert Museum.

7, 8. Figures of cats in salt-glazed stoneware in white and dark-brown marbled clays, touched with blue at the ears. Eyes are represented by beads of dark-brown slip, *circa 1745.* In the Victoria and Albert Museum.

yellow, and black, all of which have a tendency to flake off earthenware if thickly applied.

Cast earthenware was found to be a perfect medium for the quick production of full-length statuettes of celebrities—mostly of royal personages, naval and military leaders, preachers, politicians, singers, and the like. Enormous numbers were issued between 1840 and about 1865, the demand existing in a smaller way until the end of the century. Marked examples are virtually unknown. Seldom do the portraits bear much resemblance to their originals. The invention of Cornelius’s liquid gold made popular a series in white glazed earthenware sparsely decorated in gold and black.
II

Wedgwood Bas-reliefs:
Plaques, Medallions, Cameos, Portraits

The name of Josiah Wedgwood (1730-95), that enterprising and indefatigable potter of faultless taste and much self-acquired learning, has a place in the realm of ceramics somewhat akin to that of Thomas Chippendale in the realm of furniture. In each case the name stands for distinctive styles of work rather than for the designs or workmanship of an individual craftsman. Whenever Wedgwood is mentioned the name brings to mind those lovely white bas-reliefs representing much highly skilled work, and made into ornamental ware which was differentiated at the time as plaques, medallions, cameos, portraits, and the like, all reflecting the fashionable taste of his day. These date from 1768, the year in which Etruria was built, when Thomas Bentley of Liverpool entered into partnership with Wedgwood in the manufacture of ornamental ware. Until his death in 1780 Bentley was the presiding genius at their London showrooms in Greek Street, Soho, and the power which so successfully directed Wedgwood in the world of classic art.

This was the time of the classical revival throughout Europe: Herculaneum and Pompeii had been excavated, and Wedgwood, like his contemporary Robert Adam, was influenced by early Greek and Roman styles. As Robert Adam led the classical revival in architecture and furniture, so Wedgwood influenced not only English ceramics but also those of the Continent.

Wedgwood first produced his black unglazed fine stoneware in 1766, having developed it from an earlier black-ware made by the Elers brothers and other Staffordshire potters from early in the eighteenth century and known to the trade as Egyptian black. Wedgwood named his new stoneware Egyptian basalt, after the natural volcanic glass of such well-known phenomena as Giant's Causeway in Northern Ireland and Fingal's Cave in the Hebrides. The word Egyptian was soon dropped by Wedgwood, who described his basalt as 'a fine black porcelain bisque of nearly the same properties as natural stone'.
Wedgwood’s new composition, made from a mixture of ball clay, calcined ochre, smithy black, and manganese oxide, was so hard that it would strike fire with steel. Basalt is characterized by its uniform dense texture and a surface smoother and richer than that of any ceramic biscuit formerly made in England. The slight gloss or polish was produced by rubbing the ware with a soft rag after removal from the oven.

This fine stoneware was quickly discovered to be an excellent medium for intricate and sharply defined decoration. At first Wedgwood used his new material for useful ware such as tea-services, coffee-pots, and trays. When Bentley joined him in the manufacture of ornamental ware they issued replicas of antique gems in cameo and intaglio made in black basalt. Sulphur casts from the original antiques were taken for these by James Tassie, whose first account, dated 1769, was for seventy impressions at twopence each. Many of these basalt gems were given a brilliant reflecting surface by polishing on the lapidary’s wheel: the bevelled edges of many portrait medallions were finished in the same way. Later developments in the use of basalt took place in about 1775, when elaborate bas-reliefs of classic figures and groups were applied as decoration to vases of the same material.

By 1771, Wedgwood had developed another fine stoneware, which he named jasper because its density enabled it to be as highly polished on the lathe as the natural stone. His fame as an ornamental potter has been based upon the bas-reliefs he produced in this medium. The gradual evolution of early white biscuit, with or without an enamelled ground, to the finished jasper, is a success story of battling against difficult colours, impure ingredients, and uneven firing. Not until 1776 was Wedgwood able to write to Bentley, ‘We are now absolute with jasper’.

Josiah Wedgwood’s jasper was basically a dense vitreous semi-porcelain converted into a hard, close-textured stoneware by the addition of barium carbonate. Its fine, non-porous surface was secured without the application of glaze, and when pressed thin it displayed translucency. At first jasper had a creamy hue. Experiments continued, and by 1775 a perfectly white jasper was made. Wedgwood’s log-book, detailing the thousands of trials made, still survives.

Jasper body varies from the dry and opaque to the waxen and translucent. Until 1820 texture was fine and uniform of grain, and never chalky in appearance. Examples made between 1780 and 1795 feel almost like satin to the touch. During the early 1780s a slightly glossy variety was made, known to
collectors as waxen jasper. Serle gives a number of formulae for white jasper, the first on his list being: barium sulphate, 48 parts; Cornish stone, 16 parts; blue ball clay, 14 parts; flint, 10 parts; gypsum, 2 parts. Other formulae require the addition of a small quantity of barium carbonate to increase fusibility, such as the recipe for jasper given by Sir A. H. Church: barium sulphate, 59 parts; clay, 29 parts; flint, 10 parts; barium carbonate, 2 parts.

Jasper, like black basalt, was hard enough to be given a brilliant polish by the lapidary’s wheel. Yet it was porous enough to be stained throughout its substance by almost any desired colour, against which white embossments stood out clearly in relief. Wedgwood appears to have used seven of these ground colours: dark blue, lavender, sage-green, olive-green, an intense black richer and fuller than basalt, a bluish pink known to collectors as lilac, and, rarely, an attractive yellow. These hues varied in tone for technical reasons then difficult to overcome, such as the impurity of the oxides used and variations in the firing temperature.

Mineral oxides were used for colouring jasper, and never stained the reliefs. Blue was obtained by adding 5 per cent of cobalt oxide in the white body; mixed with chromic acid it produced various tints of green. Refined manganese produced lilac, but was seldom used owing to its uncertain tint. Yellow was produced by adding Naples yellow, and black by a mixture of ochre, smithy black, and manganese oxide. Thousands of experimental trials were made.

At first the jasper panels used as backgrounds for bas-reliefs were coloured throughout the mass of their fabric with mineral oxides, but it was found that a considerable percentage of these became spotted or marbled during firing. By 1777 Wedgwood discovered that uniform tints were possible by dipping the front of the white jasper panel into a slip of coloured jasper. This is known to collectors as dipped jasper. From 1780 nearly all bas-relief work was coloured by this method. Small medallions for jewellery and the like were still coloured throughout. A dark-blue dip might sometimes cover panels of solid pale blue.

These colours were the backgrounds against which the classical reliefs, portraits, and other motifs were applied, usually in white jasper. Moulds for these were made from wax originals in plaster-of-paris or fired clay. The moist white jasper was pressed by the potter’s thumb into such a ‘pitcher’ or intaglio mould until every line and dot was filled. The superfluous clay was then scraped off level with the face of the mould with a modelling tool. After drying for a few minutes, the white jasper relief was skilfully extracted from the mould, wetted with water and applied by hand to the coloured
Staffordshire figure portraits. The Prince of Wales and the Princess Alexandra, 14 inches high; Prince Frederick William of Prussia and the Princess Royal, 16 inches; Queen Victoria and the King of Sardinia, 13 1/2 inches. In the collection of Mr Thomas Balston.
panel, a process known as 'sprigging on'. While the clay was still soft the modeller tooled the reliefs, undercutting the edges to give sharpness to shadows, and perfecting the surface. The subsequent firing was a skilled operation requiring infinite care and judgment.

Ornamental wall-plaques of earthenware, fired but ungla zed, had been made by the Staffordshire potters from the seventeenth century. Some of these were crudely coloured, others were blackleaded. Wedgwood's first series of decorative plaques were flat slabs of basalt bearing Etruscan designs painted in colour. These were followed by basalt panels decorated in relief with subjects adapted from the frescoes of Herculaneum. Such panels, often finished with fluted borders, were intended for insertion in plaster walls. In some instances the field was hand-coloured.

The obvious defects in such productions, which were usually slightly warped, paved the way for pressing the relief separately and applying it to the field, carefully undercutting the outer edges. This was a decided advance in the production of bas-reliefs. By the time Wedgwood had developed his jasper-ware several hands had become highly skilled in 'sprigging on'. The long slabs of jasper to which the reliefs were applied were perfectly flat, while seldom exceeding a quarter of an inch in thickness—a technical triumph indeed.

Bas-relief plaques were at once fashionable as 'cabinet pictures', replacing the insertions of carved ivory then in vogue. Such panels enriched satinwood bookcases, writing-tables, and a wide variety of small caskets. Sets enriched with classical figure groups were made for insertion in mantelpieces. Usually the set consisted of five or seven panels, arranged with a large central plaque flanked by smaller rectangular plaques, and with a circular medallion at each end over the jamb. Flaxman's 'Medusa's Head' was a favourite motif for the latter position.

Medallions and cameos in jasper are among the most important bas-reliefs made by Wedgwood, those measuring up to two and a half inches wide being classed at the time as cameos, and the larger ones as medallions. Improvements in quality of material and manufacturing methods can be traced chronologically by comparison with examples of known date. At first they were made in white biscuit, basalt, or terra-cotta, fine jasper following from about 1777. Cameos and medallions were usually issued in series, and these might be sold singly at sixpence each, or for threepence each if the set were bought. Such sets might be arranged in mahogany cabinets fitted with suitably pierced trays. These included 'The Kings and Queens of England', 'Fabulous Age of

Fine as were the jasper medallions and cameos with coloured grounds, there was yet a more attractive variety to follow, attempted only after 1790 and constituting the most elaborate of Wedgwood’s art-work. These are the tri-coloured specimens. The ground might be pink, the border blue, and the relief white. Variations of colour were many, but the relief was always white. Tri-coloured oval medallions were made as large as five inches by three inches, and cameos as small as a sixpence.

A variety of jasper known as ‘laminated’ was made in the late eighteenth century and confined to bas-reliefs on blue grounds. In these an extra layer of a darker blue was introduced at the bevelled edges. Often this was carried right through the field and is visible in the circular fire-holes cut in the back to prevent expansion with consequent warping and cracking during firing. This, when polished on the bevelled edge, gives all the effect of a cameo of two or three strata. Medallions and cameos, like portraits, were issued in paper wrappers, each printed with the name of the subject, its source, and Wedgwood’s catalogue number.

From copying the antique it was but a step to producing medallions displaying contemporary portraits, the series being named by Wedgwood himself as ‘Heads of Illustrious Moderns’. The number of subjects eventually reached about one thousand: the catalogue of 1787 lists 229 names. Portraits made during the lifetime of Josiah Wedgwood are rare.

Jasper-ware portraits normally display the subject in profile, a white relief against a coloured ground—usually blue, infrequently green or black, rarely lilac or yellow. Each likeness, derived from life-studies, prints, or paintings, was first modelled in wax, occasionally in very high relief. Full faces are rare, these including Dr Erasmus Darwin, Dr Boerhaave, and Flaxman’s portraits of Captain Cook, William Pitt, and Charles J. Fox. Most portraits of celebrities were named in front in block letters and could be bought for one shilling apiece: if enclosed in a coloured frame of jasper the price might reach one guinea.

Wedgwood also issued jasper portraits in bas-relief to private commission. His catalogue instructed potential clients that models of clay should be fired to enable them to withstand the journey by road unharmed: or plaster moulds might be supplied. These were required to be one-fifth larger than the com-
pleted portrait in jasper. It was more usual, however, for the model to be sent in the form of a wax profile carved by one of the many wax portraitists then in business, the cost ranging from three to five guineas. Wedgwood himself recommended Joachim Smith. Any number of copies in jasper could be ordered, but not less than ten, the cameo size costing five shillings and medallions half a guinea each. Jasper portraits suitable for setting in seals, rings, or other jewellery cost seven shillings and sixpence each.

Many bas-relief medallions and portraits were sold already framed by jewellers and toy dealers. Collectors look for the oval ormolu frames finely and delicately chased and made more ornate by the addition of elaborate crestings. These might be of silver—skilfully worked bows or scrolls, or cast floral sprays and birds.

Wedgwood wrote of his bas-relief cameos: 'These are set in gold and cut-steel mountings for rings, lockets, bracelets, snuff-boxes, watch-keys, and chains, and a number of other trinkets which have lately been much worn by the nobility'. They are also found, less frequently, set in silver and pinchbeck. Miss Eliza Meteyard, in her book Wedgwood and his Works, lists some thirty other articles into which they were set, such as chatelaines, hair-pins, belt-buckles, brooches, pendants, ear-rings and coat-buttons.

Boulton & Fothergill of Birmingham manufactured a great deal of such jewellery, specializing in hand-wrought cut-steel mounts. Such mountings might be enriched with an inner fillet of gold, sometimes with the addition of polished jasper beads, bands of enamels, or crystal glass over coloured foil. A self-portrait of Madame Vigée Lebrun shows her wearing a waist-girdle fastened with a buckle displaying a Wedgwood medallion with matching ear-drops. Reversible cameos were made with figures in relief on both faces: these were mounted in pendants. There was a great vogue in Paris for this jewellery, Wedgwood's depot there being kept well stocked with suitable cameos.

In his catalogue Wedgwood advertised that he employed 'some of the best artists in Europe' in connection with his bas-relief work, and these he paid liberally. James Tassie, the eminent Scottish gem-engraver, modelled many bas-reliefs, chiefly classic heads and portraits, the latter including Lord Amherst and Adam Smith.

John Flaxman, R.A., celebrated for his classical designs in this medium, received his first commission from Wedgwood in 1775 when he was twenty years old, the great potter being his chief source of income for the next twelve
years. He did many designs in the classical style, including series of the immensely popular cameos of the Muses with Apollo, modelled in 1777. His original wax model of ‘Veturia and Volumnia entreat Coriolanus’, for which he was paid nine guineas in 1785, still exists. Among the many excellent profile portraits which he modelled was the complete series of George III and his family, Sir Joshua Reynolds, the Duchess of Devonshire, and the Admirals Nelson, Howe, Duncan, and St Vincent. Flaxman went to Italy for the purpose of study in 1787, and while in Rome he directed a group of Italian modellers—Angelini, Dalmazzo, Fratoddi, Mangiarotti, Manzolini, and Pacetti—in copying for Wedgwood classic designs suited to bas-relief work in jasper.

William Hackwood, formerly an engraver of transfer-prints for the painted enamel trade at Wednesbury, joined Josiah Wedgwood in 1769 and quickly became his chief modeller of bas-reliefs. In 1774 Wedgwood wrote: ‘Hackwood is of the greatest value and consequence in finishing fine small work. We want half a dozen more Hackwoods.’ He remained with the firm until 1832. Some of Hackwood’s plaques equal in every way those designed and modelled by more eminent artists of the period. In January 1776 Wedgwood recorded that ‘The Birth of Bacchus’, modelled by Hackwood from Michelangelo’s seal, was then the largest jasper plaque to have been produced. It measured twenty-seven inches across by twelve inches high, and sold for thirty shillings.

Hackwood’s excellent profile portraits include those of George III, Queen Charlotte, Josiah Wedgwood, David Garrick (all modelled in 1777), Admiral Keppel, Dr Priestley, Louis XVI, and an old bricklayer, Edward Bourne, employed on the Wedgwood pottery kilns. This and the profile of Wedgwood are signed w.h. in script, the only instances of a modeller’s mark to be found on the surface of any jasper bas-relief.

Wedgwood was dogmatic regarding the use of names other than his own and Bentley’s, although a few bas-reliefs are known inscribed on the back ‘by Flaxman’. Considering his pottery solely as a commercial enterprise—Wedgwood died worth half a million pounds—he believed that all individual effort, by permanent employees and celebrated modellers and artists alike, should be merged into a single unit under the name of Wedgwood. But he had no hesitation in acknowledging in his catalogue designs for bas-reliefs from his friend Sir Joshua Reynolds, P.R.A., and a number of fashionable amateurs.

To Lady Templetown, who supplied sentimental classical designs—not wax models—he paid a marked tribute in his catalogue, where he announced that
A collection of twenty-two Jasper medallions and plaques, Centre, "Sacrifice to Peace," designed by Lady Templeton in 1784. All made at Etruria between 1775 and 1790. In the Wedgwood Museum.
'the exquisite taste of her bas-reliefs is universally acknowledged'. The modelling was carried out by Hackwood. Wedgwood acknowledged to Lady Diana Beauclerk the designs for the 'Bacchanalian Children'.

Eminent among the forty-eight modellers listed by Miss Meteyard, and whose work was issued anonymously, were John Bacon, R.A., George Stubbs, R.A., Richard Westmacott, R.A., Louis-François Roubiliac, J. Coade, T. Pingo, and James Wyatt. Professional profilists in wax included Matthew and Isaac Gosset, Joachim Smith, E. G. Mountstephen, and Patience Wright.

Wedgwood's bas-reliefs from 1772 onwards were always impressed with the name of his firm; in that year he wrote to Bentley: 'Going on a plan to mark the whole'. The soft clay was impressed with ordinary printer's type of the period, such marks being entirely durable when fired. Until Bentley's death in 1780 the mark

WEDGWOOD

& BENTLEY

was used in four sizes. From 1780 the name WEDGWOOD in six varying sizes of type has been impressed. Intaglios also had the catalogue number impressed beneath the name.

Modern jasper bas-reliefs in black, dark blue, light blue, and sage-green date from 1851 onwards. The word ENGLAND has been impressed beneath the name from 1891. Some examples are exact facsimiles of the old Wedgwood, the original wax models having been used. After inspection of authenticated museum specimens, however, the collector will distinguish productions of the past century from those made by Josiah Wedgwood and his contemporaries. Occasionally in recent years the word 'England' has been converted into 'Bentley' and preceded by '&', presumably by the use of an electric tool. But the alert collector will recognize such conversions, which are illegal.

Some eighteenth-century medallions bear workshop instructions inscribed into the unfired body with a sharp point. Such notes as 'E.Wash' and 'L.Tub' indicated to the potters the composition of the materials used: the letters 'TBO' mean 'top of the biscuit oven'.

The mark WEDGEWOOD, impressed by W. Smith, a potter at Stockton-on-Tees, is sometimes found on small blue and white medallions of poor quality. The Staffordshire firm naturally obtained a perpetual injunction and the marks were discontinued from 1848.

William Adams, a favoured pupil of Josiah Wedgwood, left his master in 1789 and established a pottery at Greengates, Tunstall, where he produced
some of the most successful imitations of Wedgwood's jasper bas-reliefs, using the formulae and processes learned at Etruria.

Henry Neale of Hanley claimed to have been earlier in the field of jasper bas-reliefs than Wedgwood himself. But for the marks it would be difficult to distinguish between the work of the two potters. John Voyez, his modeller, cleverly imitated the finest of Wedgwood's costly designs immediately they were issued: copyright in design was then limited to no longer than three months. In 1776 the firm became Palmer & Neale, and some extremely large medallions in blue and white bear their name.

John Turner of Lane End, and his son, produced bas-reliefs in what appeared to be an excellent, fine-textured jasper, either slaty blue, green, or black, and were formidable competitors of Wedgwood. Not until about 1790, however, did the Turners issue true jasper-ware.
III

Staffordshire Pew Groups

Pottery models crowded on farmhouse mantelshelves and window-sills have come to be associated largely with the early years of Victoria's reign. But a hundred years earlier, Staffordshire potters were already evolving decorative models for the homely farmstead and more modest household. Mid-eighteenth-century porcelain manufacturers vied with each other to produce imitations of Continental ornaments for those who could afford them, but, characteristically, these early Georgian earthenware workers of Staffordshire used their lively imaginations in the production of wholly original designs.

Outstanding among these were the ornaments which have come to be known as pew groups. These consisted of small groups of figures whimsically modelled in the vivid black-and-white required to show clearly in the smoky half-light of the mantelshelf where they would sit with apparent contentment.

Until the introduction of plaster-of-paris moulds into the Potteries in about 1750, figures were modelled almost entirely by hand with the help of a few simple tools. This of necessity precluded exact duplication in the mass-production manner. Each piece of figure-pottery was a hand-worked creation in which the potter's personal idiosyncrasies were given full scope to vary the standard model from which he worked.

The basis of such a group was usually a solid, high-backed settle, which formed a convenient background for the seated figures, usually consisting of one or two men and a woman: three-figure groups are rare. The settles might sometimes slightly resemble church pews, but no religious significance should be inferred from the name by which they are known to collectors. Themes vary, love and music being the most frequent.

Pew groups may be considered in three classes: salt-glazed, lead-glazed, and reproductions—the last being the most numerous. The salt-glazed pew groups appear to be the productions of a single factory, not more than half a dozen modellers being concerned. The figures, with minor variations, wear similar clothing. The rigidly posed women are dressed in widely flowing skirts partly
hidden beneath long aprons, tight bodices, and ruffled caps. The men are clad in skirted coats worn over frogged and buttoned waistcoats, their heads bewigged with tightly twisted roll-curls.

The use of these fashions considered alone might place pew groups early in the reign of George II (1727–60). Technical influences, however, establish the date more accurately as during the few years preceding the introduction of moulds for figure-making. Additional reasons for placing pew groups in the 1740s are found in the use of a white body containing calcined flint, introduced in about 1740, and the use of incised or scratched decoration on some examples. In these, a pattern, incised with a sharp tool on the back of the settle before firing, is emphasized by a filling of powdered cobalt. Hand-moulded, blue-scratched pew groups must therefore date between about 1740 and 1750. From about 1750 salt-glazed pottery might be enamelled in colours, and the absence of such decoration on pew groups is yet another pointer to their date.

It is the opinion of some authorities that Aaron Wood was responsible for the salt-glazed pew groups. Wood, formerly an apprentice with Doctor Wedgwood, became the finest block-cutter and mould-maker of his day. It is difficult to correlate the meticulously fine craftsmanship required for first-class moulding with the naïve designs of existing pew groups.

John Astbury is the potter most probably concerned with the production of these groups. The series of figures representing musicians playing bagpipes and other instruments, which are generally credited to Astbury, bear a remarkable resemblance to certain figures in musical pew groups. Astbury is also assumed to have been the first to introduce white pottery such as was used for this work, an improvement brought about by incorporating calcined and ground flint, instead of sand.

The number of salt-glazed pew groups that have come to light during the past twenty-five years has reached significant proportions. It is therefore essential for the collector to be familiar with the constructional technique of the pew-group potter two centuries ago.

The ‘Woman between Fiddler and Bagpipe Player’ was carefully examined by the author before its sale at Sotheby’s in 1932. Clays of two contrasting colours were skilfully used, white and a brownish black. The black portions of pew groups were produced not by painting or glazing, but by superimposing dark clay on the white body.

The settle, 6½ ins. high, 8½ ins. long, and 2½ ins. wide, was obviously the

15. An all-white pew group showing Adam and Eve standing in front of a settle that supports an apple tree. In the Glaisher Collection, Fitzwilliam Museum, Cambridge.

first unit to be prepared. This was constructed of five sections—base, back, sides, and seat—cut from a \(\frac{3}{8}\) in. thick sheet of white clay, as though it were pastry. A \(\frac{7}{8}\) in. moulding applied around the top of the settle-back added strength to a weak portion. Decorative arm-rests were made by twisting together rolled lengths of white and black clay. Into the back below the seat three irregular arches were cut. The back of the settle in this instance was decorated with seven groups of dots in dark slip arranged in the form of a halo around the head of the central figure.

This style of decoration is rare. More frequently a motif composed of spades, circles, and a heart was cut into the back of the settle. Solon, in his *Art of the Old English Potter*, remarks that such cut-work motifs imitate a German style of decoration, and were popular in England from about 1720 to 1750. Sometimes the settle-back might be scratched and the hollows filled with blue decoration. Joints were carefully smoothed.

The various anatomical sections of the figures were then modelled by rolling, cutting, and pinching. From the waist up, the woman was a solid core modelled from an almost plain cylinder formed by rolling clay between the palms of the hands. The upper end was shaped into a neck. A ball of clay was rolled into a sphere and modelled into a head. Arms of rolled clay were then attached to the body, their flattened ends tooled to represent hands and fingers.

The figure was then dressed, the garments being cut from paste rolled flat to one-sixteenth of an inch thick. Black ruffs were wrapped around the forearms and wrists to give the illusion of sleeves. No legs were hidden beneath the billowing skirt, which was composed of alternating strips of black and white clay, the surfaces of the white stripes being decorated with milled lines. Over this elaborate skirt was placed a long, plain white apron, the potter completing the ensemble by fitting a pleated cap of clay. The eyes, necklace, and other dots were of black slip.

The men were more completely modelled than the women, their dress less thoroughly disguising the figure. The clothing fitted over skeleton cores in the same way as on the women. Boldly curved ringlets consisting of narrow strips of clay were attached to the head, which might be fitted with a tricorn hat. Dark clay was used for the hat, neck-ribbons, cuffs, and shoes, while the edges of the hat-brim and shoe-buckles were white. The men were often supplied with musical instruments such as bagpipes or fiddle.

After modelling, the pew group was fired in the kiln. The white-clay body from which the groups were made was harder and more durable than earlier
earthenwares. The hard, translucent, non-porous salt glaze, which had superseded the dull lead glaze formerly used, was produced by the action of sodium chloride (common salt) upon the red-hot surface of the clay. The salt was shovelled into the kiln through apertures made specially for the purpose, being suddenly introduced at the moment of peak temperature, immediately before active firing ended. The ware was enclosed within perforated saggars piled one above the other. The perforations permitted the vapour from the volatilized salt to reach the ware, when certain chemical changes occurred. This caused silicate of soda to be deposited over the surface of the ware, producing, when cold, a film of transparent soda-glass. Salt glaze, brilliant and of outstanding durability, is characterized by tiny, well defined pin-holes or granulations.

The lead-glaze pew groups were a later series of two-figure models with circular seats andcrudely formed figures. They were made by Wedgwood, and bear his name impressed on the base. This places them after 1759 when he started in business on his own account, and before his partnership with Thomas Bentley in 1768. The glazing of these groups was achieved much as it would be today, the group being fired to achieve the state known as biscuit, and then dipped in liquid glaze and given a further firing to set it. The resultant glaze has a faintly green hue. Touches of colour were introduced with manganese-purple and brown. One typical Wedgwood group shows two youths, one reading a book, the other holding a scroll in his left hand and a glass of beer in his right.

Reproduction salt-glazed pew groups appear to have been made from photographs of genuine pieces. Modelling is laboured, lacking the apparent easy carelessness of originals, and white clay only is used. Decoration is in black slip, as a superficial wash, brush-applied, instead of being built into the piece. The technique of manufacture displays many other discrepancies when compared with that of pew groups made two hundred years ago.
IV

Sporting Stirrup-cups

The great English blood-sport period covered the life-span of George IV. Everyone, from royalty to the poorest peasant, was interested in some kind of sport, ranging from fox-hunting to cock-fighting. Paintings and prints illustrating their innumerable phases were commissioned by successful sportsmen themselves. Figures in pottery and porcelain commemorated outstanding sporting events, and many of the greyhounds depicted were modelled from famous champions. This era was notable for hard drinking, especially of strong ales, then the most potent of English liquors. It is not surprising, therefore, that silversmiths catered to the needs of the sporting fraternity by producing drinking-cups modelled after the heads of the various animals associated with the favoured sports.

Silver stirrup-cups were chiefly presentation pieces. They were made from as early as about 1750, hand-raised from single plates of metal. The circular rims were finished in the form of plain collars intended to be engraved with inscriptions associated with some memorable or personal occasion. For half a century the majority were life-like fox-masks, the work of silversmiths who delighted in rendering accurate models of Reynard. From 1765 until about 1790 it was fashionable for each hunt member to possess a silver stirrup-cup engraved with some such inscription as 'Prosperity to the Red Coat Hunt', or 'Success to the Melton Hunt'. The owner's crest was engraved upon the skull. The Regency sporting fever increased the demand for such cups, and they began to be cast in heavy silver, finished by hand-chasing.

Greyhound heads were now favourites, being presented as prizes at coursing matches. An inscription encircling the collar commemorated the occasion. One example reads: 'Won by G.H.D. Esqre. B.C.B. Jess at 13 months beating seven others. 1815.' This example is hall-marked 1815: another hall-marked 1814 was not inscribed until 1818, indicating that silver stirrup-cups had become stock-pieces to be bought as occasion required.

Ceramic stirrup-cups were made from about 1770, in great demand being those fox-masks from which Nimrod and his contemporaries drank a starlight
pick-me-up of home-brewed beer or sack before setting out to face the dark world which greeted the old-time fox-hunter. They varied in size from a three-inch drammer to the giant almost a foot long. Midget examples in bone china were fitted with hinged metal lids and used as snuff-boxes. These date from about 1820.

To Thomas Whieldon, that potter-genius of Fenton Low in Staffordshire, goes the credit for first fashioning a fox-head stirrup-cup in earthenware. At first Whieldon fox-heads were boldly modelled and splashed with a green glaze which gave them a sinister expression. The later productions were less deeply moulded and were enamelled in naturalistic colours with a green collar encircling the neck-rim. The glaze was tinged faintly brown, a tint which time has changed into varying hues covered with fine hair-line crazing. Whieldon designs included the earless fox-head of creamy white pottery with olive markings.

A wide variety of fox-head drinking-cups was issued by the Staffordshire potters during the next three-quarters of a century, but it is impossible to attribute specimens to individual factories, apart from those in black basalt made by Josiah Wedgwood, and those covered with a bright, black glaze made by J. & J. Jackson of Burslem from about 1790. Earthenware stirrup-cups made before about 1825 were skilfully modelled, comparable with contemporary examples in bone china. Afterwards modelling progressively deteriorated, although inferior enamels were artistically applied. Taken as a class, however, Staffordshire fox-heads are extremely attractive, usually being decorated in natural colours but with pink ears and black or grey muzzles. Cup interiors might have a faintly bluish tint, due to the presence of smalt in the glaze. Among later fox-heads may be included those with reddish brown and black markings, all-over brown glaze, the productions of Lambeth and Fulham, and all-over red or yellow glaze.

Collars encircling the necks of earthenware fox-heads vary in colour: black, blue, yellow, white, and yellow with black edges are most frequent. Gilt collars are sometimes found and, after about 1800, collars of pink lustre. Inscribed on the upper neck of the collar in contrasting colour, usually in gold or black, might be the owner’s name or cypher, or the cry ‘Tally-ho’, early variants including ‘Tallio’, ‘Tally Hoo’, ‘Talley, Ho’, and ‘Tallyho’.

Fox-head and other stirrup-cups were made in soft-paste porcelain from the 1770s until the end of the century. Several entries in the Derby-Chelsea sale catalogue of 1780 show them to have been sold in pairs, large size fox-heads
fetching 8s. 6d. the pair; 'one pair foxes heads for drinking cups 6s.'; and 'one pair hares' heads enamelled and gilt'.

Derby fox-heads in porcelain were beautifully modelled, the cunning expression of the eyes being particularly well delineated. The most arresting of all is the style enamelled in naturalistic tawny-red tones with a gilt collar. The collar might be inscribed with the name of the hunt, such as 'Success to the Melton Hunt', or the name of the owner, but more frequently merely with the cry 'Tally-ho'.

With the introduction of bone china in 1798 sporting stirrup-cups began to be produced in the new ceramic medium, white, tough, and translucent. Derby produced a series of naturalistic stirrup-cups in bone china, fox-heads frequently having yellow eyes and pink collars: many were glazed in a pearly white. Others were decorated in plain all-over colour such as brown or yellow, with a matt exterior and glazed within. Later Derby fox-head stirrup-cups were less skilfully modelled, naturalistically coloured and without collars, and were highly glazed. These now display hair-vein crazing.

Hound-head stirrup-cups ran a close favourite to the fox-heads. Ralph Wood II of Burslem produced examples in earthenware: these are crudely shaped, with a light olive-green translucent glaze giving them a somewhat repellent air. John Turner of Lane End modelled some very life-like hound-heads in earthenware, including the unglazed cane-coloured series with glazed interiors and with collar bands decorated with anthemion and florete motifs. At least thirty of the Staffordshire potters made earthenware hound-heads. Those of the eighteenth century and until about 1820 were cleverly modelled with ears laid flat, naturalistically enamelled with delicately tinted muzzles. Tones of reddish brown and black, with gold and black collars, are found, brown markings being a common variation. The rim might be encircled with a border of a deeper tint of the dominating hue. Many of the coarser and later Staffordshire fox- and hound-heads of earthenware were made to serve as prizes at fairs and rural festivities.

Realistically featured hound-heads in soft porcelain came from Derby. Collars might display gold-lettered references to celebrated hounds of the period: more frequently the names of these enemies of Reynard appear to have been of the stock variety, such as Flora, Pompey, Sweet Lyn, and Cicero. The name of the hunt is rarely inscribed on the collar. In some examples the gold collar is pierced with holes for the mounting of a gold or silver nameplate.
Derby, Rockingham, Coalport, and some two dozen Staffordshire potters specializing in bone china issued hound-heads in naturalistic colours. To Rockingham, dating from 1821, may be attributed some of the lavender-glazed hound-heads. Marked with the Rockingham griffin, dating from 1826, are some vigorously modelled hound-heads in plain white, their necks encircled with collars of highly lustrous gilding. From Staffordshire came the bone-china hound-heads in a dull, white biscuit, and a well-modelled series coloured in tones of black and grey, reddish brown, or grey brown. Black ears and a light-maroon muzzle distinguish another extensive series. Collars might be gilded, but were generally in red, yellow, or black enamel, upon which the name of the hound might be inscribed in gold or enamel of a contrasting colour.

The deer-stalker preferred his stirrup-cup to take the form of a deer- or stag-head, without antlers. Some of these, unlike other stirrup-cups which are invariably round or oval rimmed, have everted crescent-shaped openings. Whieldon's deer-heads in earthenware were poorly modelled in a light cream ware coloured with manganese. They may be recognized by their exceptionally tiny ears. Some were garishly decorated in light colours and finished with green and yellow translucent glaze sparingly applied.

The potters responsible for the majority of deer-heads in earthenware remain unknown. There is, however, a series of fawn-head stirrup-cups in chocolate-tinted earthenware with collars decorated with vine motifs in relief: these are impressed with the mark E. Mayer of Hanley (1770-1813). Others are found in agate-ware distinctively marked in brown and yellow. A small-eared series of sensitively modelled deer-heads was made in cream-ware and decorated in buff and black, or marbled mottling in several tones of brown. The collars were decorated with hand-incised motifs.

Silver lustre was used in connection with deer-heads, the rare all-over examples having rims impressed in relief with decorative motifs. A more numerous group was dappled with silver lustre, and others were given pink, frond-like motifs in lustre. It is doubtful if deer-heads were made in soft-paste porcelain. Examples in bone china are always naturalistically coloured. A few deer-heads in white were printed with the Rockingham griffin.

The Georgian angler slaked his thirst from a cup made in the form of a trout-head. Such stirrup-cups appear to have originated at Derby in bone china: none has been noted in any other medium. The Derby trout-head is carefully modelled and enamelled in naturalistic colours, with a spotted green
back and pink fins. The rim may be encircled with a gilt-rimmed white band inscribed in gold with a fisherman's slogan such as 'The Angler's Delight'. Others, Staffordshire in origin, are of plain white bone china, glazed, sometimes with gilt fins and a speckled mouth. Another series has grey markings with scales moulded in relief. A few are known in the brown glazed stoneware of Fulham.

Hare-head stirrup-cups for the thirsty hare-courser appear to have originated in the pottery of Ralph Wood II. These are poorly modelled with close-set ears, their glaze having a fawny-grey tint. During the last decade of the eighteenth century, a hare-head cup in earthenware might have large loop-handles flanked by the ears and an everted, channelled, circular opening set at right angles to the head. These were enamelled in various tones of brown. Early in the nineteenth century a type in natural colours was made with upright ears which the drinker might grasp as a handle.

The loop-handled type was made of porcelain at Derby during the 1770s. These were excellently modelled and enamelled in tones of russet and fawn: the edges of the cup-mouth and the channels on the outer surface were outlined in gold. Derby later made similar pieces in bone china. These were naturalistically coloured and marked with crown, crossed batons, and D in red, dating from 1815. Others were coloured all over in dark or light brown. Staffordshire also issued some excellent hare-heads in bone china, including a series with light-blue markings.

Closely associated with the hare-head was the stirrup-cup representing a greyhound's head. In earthenware these were made with many styles of decoration, particularly attractive being a long-head type artistically coloured in shades of grey. Early examples might be in yellow grey with a streaky glaze. The bone-china potters issued excellent greyhound cups naturalistically coloured. The gill border encircling the rim is sometimes inscribed with the name of the hound's owner in gold, or the name of the animal itself. Spode made some excellent greyhound heads in bone china with black and white markings and light-brown collars. These are distinguished from similar cups by other makers by their exceptionally long necks, and may sometimes be marked 'Copeland & Garrett', dating them between 1833 and 1846.

The bull-baiting enthusiast preferred a bulldog head. Such stirrup-cups in earthenware appear to have emanated from a single unidentified factory and are frequently glazed in brown with yellow eyes and collar. Variations included white, black, and mottled. Rockingham issued some well modelled
bulldog heads in bone china, usually in white with gilt collars. Staffordshire produced white bulldog heads in several sizes.

Large bull-terrier heads with protruding ears and carefully coloured were made in bone china at Derby. The collar might be incised in letters, afterwards gilt, with the name of a celebrated dog.

Other sports were also catered for. The country squire whose favourite hobby was shooting game drank from a cup in the form of a setter's head. Rockingham setters in natural colours are marked with the griffin in red. Dalmatian stirrup-cups for the man who enjoyed a country drive, with his 'plum pudding' dog trotting contentedly beneath his carriage, were made in both earthenware and bone china, the latter having gilded rims. They were also made in a buff-coloured stoneware.

The prize-fighting enthusiast delighted to quaff his ale from a cup in the form of a clenched fist; the cock-fighter preferred a cock's head. Bears' heads were made in Staffordshire and in Newcastle from about 1790 in black or brown glazed earthenware. From Leeds came a series in the form of horses' heads.

The collector who stumbles across a marked stirrup-cup will consider himself very fortunate. Early cups may be attributed to certain potters by the resemblance of the ware and its decoration to pieces of known origin. Apart from the few outstanding potters, earthenware and bone china were rarely marked, and as some fifty or more made these souvenirs of bygone sports, it is almost impossible to attribute accurately the origin of secondary examples. Derby made sporting stirrup-cups in soft-paste porcelain from the 1770s, and such pieces were marked, as were the bone-china examples dating from 1815. Early Rockingham examples are unmarked, the griffin printed in red or brown dating from 1826.

Reproductions of sporting stirrup-cups in bone china are widely made, those in porcelain and earthenware less frequently. Bone-china reproductions made by one firm are crude, with colours amateurishly applied, their glaze brilliant and rough, and, in the case of fox heads, their points are painted black almost to the cheek bones. Although costing less than five shillings each, such reproductions have been sold at ten and twelve guineas each. Another series of bone-china reproductions more closely resembles the originals.
17. Whieldon stirrup-cups. Fox-head and deer-head, decorated with splashes of green and brown glaze. *In the collection of* Colonel Gerard Leigh.


21. Stirrup-cups of coloured earthenware in the form of bulldogs' heads. *In the Brighton Museum and Art Gallery.*

V

Pottery and Porcelain Punch-bowls

For well over a hundred years every convivial gathering around a winter's fire, and especially the rollicking feasts that heartened the long black nights of Christmastide, centred on the very symbol of eighteenth-century hospitality—the huge, steaming punch-bowl.

During the seventeenth century, sailors discovered the potent mixture. Six thousand together drank from the great marble fountain-bowl of punch with which Admiral Edward Russell, commander of the Mediterranean fleet, made merry in 1694 at Alicante. The quantity that they drank may be gauged by the inclusion of 2,500 lemons, not to mention four hogsheads of brandy and thirteen hundredweight of sugar among other ingredients. A ship's boy in a special boat rowed round in the brew to serve the throng.

As late as Mr Pickwick's day, when that decorative gentleman celebrated Christmas afternoon by falling into Mr Wardle's pond, it was only to be expected that the company should celebrate his safety in no fewer than three bowls of the hot and potent mixture—such a mixture as, on another occasion, and ordered by an appreciative Sam Weller, provoked Mr Tucke the footman, dressed out with cocked hat and stick, to dance a frog hornpipe on the table. Such being the universality of the drink, it is not surprising that punch-bowls were long regarded as the perfect gifts at the season of goodwill, and that even today the punch-bowl has particular charms for those who delight in colourful reminders of past revels.

Squire Bracebridge himself mixed the Christmas punch of which we read in Thackeray's Sketch Book. In its heyday, punch-making was a distinguished social accomplishment, and often a passport to celebrity. The enthusiasts of the eighteenth century vied with each other in their experiments and inventions. A successful punch gave its creator his little hour of glory, or brought trade to mine host and renown to his tavern. Fashionable punch-makers, or punchifiers, commanded high wages. According to the best tradition of punch-building, the drink was subtly concocted before the eyes of the guests.

Punch clubs were created during the Orange régime, flourishing profitably
throughout the reigns of the four Georges. Their well-stocked puncheries were magnificent in their display of colourful punch-bowls, long-handled ladles, drinking glasses with their accompanying saucers of pottery, sugar-bowls, spice-dredgers, and bottles hung with enamelled labels naming the numerous liquors that went to the making of the fifty or sixty modish punches. The *Edinburgh Review*, in 1815, made a note of the convivial company to be found in the punch clubs.

The sudden popularity of punch drinking inevitably encouraged the hosts of some inns and taverns to specialize in the sale of the new drink. Known as punch-houses, these establishments catered specially for sailors, and were particularly numerous in seaports. Wheeler, writing in 1671, distinguished between 'Victrallers and Punch-houses', and Carlyle, in his *Autobiography* of 1805, mentioned that 'a company of seven or eight, all clergymen, supped at a punch-house in the Bow'.

'A bowl o' punch' was referred to as early as 1632, but the drink was sufficiently a novelty in 1662 for Evelyn to record in his *Diary* that he had tasted the strange drink. Authorities are agreed on its Oriental origin and consider the name to be a corruption of the Hindu word *Punj*, meaning five, and representing the five essential qualities of a good punch: hot, cold, sweet, bitter, and strong. The corresponding ingredients used in punch-houses were tea, water, sugar, lemon, and arrack. When the Oriental arrack was replaced by spirit familiar to the English taste, the new drink quickly captured the imagination and palate of the discriminating, the number of ingredients being reduced to four. 'A pleasant and grateful Punch', declared Bates, in his *Dispensary* of 1694, 'is made with the following quantities: Fair water; Brandy A, a quart; choice pure lemon juice, a pint; double refined sugar, 1 lb.; mix and dissolve and, if you so please, add one Nutmeg grated'.

In the Orient, punch was prepared in large hemispherical bowls of porcelain enriched inside and out with colourful enamels, or, less expensively, with paintings in cobalt blue. Consignments of these fragile bowls brought to London by the East India Company in the seventeenth century were inadequate to meet the demand. This prompted silversmiths to introduce smooth-surfaced, capacious punch-bowls on high, spreading, moulded feet. Success was immediate, and punch-bowls were included in the silver equipage of rich households until the days of William IV.

The less exclusive public were content with punch-bowls of earthenware enriched with painted ornament in cobalt blue, or merely plainly glazed. At
first in delft-ware, then in stoneware, white earthenware, porcelain, creamware, bone china and ironstone china, they were made in all sizes from about eight inches to twenty-eight inches in diameter, the width, until about 1760, usually being twice the height. Sets of six matching bowls, varying from ten to twenty inches across, became usual upon the establishment of punch clubs during the 1690s.

Some punch-bowls were accompanied by colanders of the same material, similarly decorated. The colander was placed within the bowl during the preparation of a punch flavoured with solid ingredients, and was withdrawn before the liquor was served. A blue and white example, decorated with Chinese figures and foliage, made by Thomas Baddy of Brislington Delft Pottery in about 1730, was exhibited at the Wine Trade Exhibition of 1933. Bone china colanders are not rare.

The exteriors of the finer punch-bowls were invariably enriched with designs in colour, such as landscapes or figures, and Oriental, floral, nautical, sporting, and other motifs. The interior of the bowl might contain ornament to harmonize, but, more usually, received no more than a formal border and a central motif in the base. A commissioned example might bear a coat of arms or a personal inscription with name and date, to be found, for instance, on baptismal and wedding-bowls. Punch-bowls were made the vehicle for loyal sentiments, for religious, political, and social propaganda, and, as such, make slight, but accurate, contributions to contemporary history.

It has been assumed, wrongly, that punch-bowls were not carried on board ship, owing to the danger of breakage. Tonge, however, wrote in his Diary of 1675, ‘On board the Ship Assistance, I dranke part of 3 boules of Punch’; and Worlidge, in the following year, defined punch as ‘a Drinke very usual amongst those that frequent the Sea, where a Bowl of Punch is the usual beverage’. More than half a century later, Hogarth, in his conversation-piece showing Lieutenant George Graham at table in the cabin of his ship, included a giant bowl of punch. Knapton’s portrait of Sir Bouchier Wray depicts the sitter in a ship’s cabin that contains an even larger punch-bowl.

The splendid succession of punch-bowls extended for a century from the 1720s, the majority of examples dating between 1760 and 1780. Bowl interiors might be decorated with portraits of fully-rigged sailing ships, each accompanied by an inscribed ribbon bearing the name of the ship and master, and also the date. There was, for instance, the Golden Lion, which was depicted in a 17½-inch delft bowl made in 1753 for Captain Metcalf, her master, and
formerly in the Liverpool Museum. *(The Golden Lion was the first vessel to sail from Liverpool in connection with the whale fishery and Greenland trade.)* The same museum also possessed a porcelain punch-bowl wishing ‘Success to the Polar Star’, a whaler commanded by Captain Willson. The interior, painted in blue underglaze, showed the vessel as a square-rigged whaler flying the Union Jack. Whales were spouting in the foreground and boats’ crews were hunting them with immense harpoons. These two bowls were destroyed by German bombing in 1941.

Such nautical punch-bowls were made at Liverpool, Bristol, Lowestoft, London, and elsewhere, not only painted in blue on delft, but also in full colour on porcelain, and transfer-printed in black on Liverpool porcelain and creamware. The exteriors of early examples often carried the Oriental, floral, or other motifs generally applied to punch-bowls. Later, trophies of weapons and naval gear in blue might encircle the exterior or the inner rim.

Other punch-bowls associated with seafaring commemorated the naval triumphs of popular admirals, with portraits and scenes of their victories. Admiral Vernon taking Portobello, in 1739, and Chagres, in 1740, was honoured by extensive issues of punch-bowls on both occasions, as was Nelson for his victories of a later period. The privateer punch-bowls of the 1750s are usually of Bristol origin, as many privateers sailed from this port to prey on French shipping.

Wealthy trade guilds invariably commissioned sets of punch-bowls painted with the arms of the companies, exteriors often illustrating scenes in which brethren are following their trades. The records of the Founders’ Company show that in 1784 they were presented with a set of six china punch-bowls from Lowestoft. Each was finely painted with the Company’s arms, a deep border of gold, and a design of roses and pines covering the exterior. ‘Success to the Sword Makers’ and ‘Long live the Pewterers’ are typical of inscriptions to be found on punch-bowls otherwise displaying standard decoration. These, and examples decorated merely with the Company’s arms in black transfer, appear to have been used in punch-houses and taverns where provincial meetings were held. The cost of a transfer-plate leads to the assumption that considerable numbers of each bowl were made.

Sporting punch-bowls were made in wide variety, but few remaining examples are inscribed. Some early blue and white examples show stag-hunting scenes, strangely inscribed ‘The Friendly Hunt’. Porcelain bowls from Lowestoft were finely painted with encircling and continuous hunting scenes


26. Nottingham grey stoneware bowl, coloured brown and with incised and impressed decoration. In the Victoria and Albert Museum.

27. Bristol delft electioneering punch-bowl decorated with bianco-sopra-bianco, and dated 1755. Viscount Wenman and James Dashwood represented the 'Old Interest' for Oxfordshire. In the Victoria and Albert Museum.
in brilliant colourings. James Seymour's painting 'In Full Chace' was often used to encircle the bowl, and his companion picture 'The Kill' inside. Sometimes such a bowl was inscribed with the name of the hunt for which it was made. The same pictures were transfer-printed at Worcester on large porcelain punch-bowls. Steeplechasing and horse-racing scenes encircled the exterior of other bowls, and prize-fighting, dog-racing, and coaching pictures are frequently found.

The custom of designing punch-bowls for particular convivial occasions in the tavern and country inn naturally extended to agricultural celebrations, with transfer-prints featuring the plough, pitchfork, rake, sickle, and other implements of the farm.

Electioneering punch-bowls appear to have been distributed by some candidates to taverns in their constituencies whose hosts, no doubt, were paid to give away the contents to those who held a vote. The delft punch-bowl apparently made by Joseph Flower of Bristol, and inscribed 'Wenman & Dashwood for Ever. 1755', refers to the election of Viscount Wenman and James Dashwood, representing the 'Old Interest', for Oxfordshire. 'Liberty & Clavering for ever' and 'Prosperity to the Borough of Lewes' are two typical electioneering inscriptions found on punch-bowls.

The earliest English delft-ware punch-bowls were made by the Lambeth potters distributed along the Thames as far as Deptford. Delft is an extremely cheap and durable earthenware fired from clay containing a high proportion of lime in its composition. The biscuit was coated with a fine enamel made white and opaque by the addition of tin oxide. Decoration was applied over this before the ware again entered the kiln, the enamel being liquefied and the colour fixed at a single firing.

Painting on an unfired surface made the colour tend to run, causing lines and edges to become irregular where the drying enamel carried the colour with it during shrinkage in the firing oven. The ware was afterwards finished with a lead-glaze slip that became transparent when fired.

The trade soon extended to Bristol. Delft was being made here in the seventeenth century, and by 1703 at the Redcliff Backs factory. It is difficult to distinguish between the products of Bristol and Liverpool, because the decorations are often identical. Bristol body is thinner in section and the cobalt blue distinctly darker in tone. Although the enamel was hardly so purely white as Liverpool, its surface lustre is now about the same. Bristol has a slightly bluish or greenish tint in the enamel, but this is also true of some Liverpool
punch-bowls. Bristol punch-bowls have flattened, flaring sides, whereas those of Liverpool are generally boldly curved.

At the pottery established in 1743 by Joseph Flower was made a series of punch-bowls skillfully painted with imitation engravings in dark blue. Flower was also responsible for punch-bowls with interiors decorated with bianco-sopra-bianco borders enclosing central decoration or inscriptions in blue. Bianco-sopra-bianco, or white-over-white, depended for its effect upon the intense whiteness and slight body of the painted decoration. A similar style of slightly blobby painting in white was applied rather more effectively to the decoration of glassware, but had only a brief vogue on pottery. Exteriors of such bowls might be painted with ships in blue, or in blue and heavy manganese-purple. Another Bristol decoration that has been noted on punch-bowls is sprinkled blue or purple, leaving reserves in white.

Delft-ware was made extensively in Liverpool from 1716 for some forty years. Liverpool became celebrated for delft blue-painted punch-bowls, just as later the city became noted for examples in porcelain, white pottery, and creamware. At Liverpool was accomplished that most difficult technical feat for an eighteenth-century potter—the production of a giant delft punch-bowl, twenty-eight inches in diameter and thirteen inches deep. The obstacles in the way of such an achievement were immense, owing to the liability of collapse or distortion in the kiln. This giant punch-bowl, destroyed by a German bomb, was of exceptionally thick fabric, the section at the bowl base being one inch, tapering to \( \frac{3}{4} \) inch at the rim. The exterior was decorated in blue with conventional floral designs, and there was a coat of arms on the base interior.

The same factory appears to have made the famous punch-bowl at Ye Olde Cheshire Cheese, in Fleet Street, for the points of resemblance in both potting and decoration are numerous. This giant, twenty-three inches in diameter, is decorated on the outside with a blue conventional floral design, and on the inside with an infant Bacchus, vine leaves, and bunches of grapes. Giant punch-bowls in delft-ware appear to have been a Liverpool speciality. The principal makers of punch-bowls in Liverpool were Seth & John Pennington, Richard Chaffers, Zachariah Barnes, and S. & T. Shaw.

Contemporary with delft punch-bowls were the less costly and immensely stronger stoneware bowls made expressly for use in punch-houses and taverns. These punch-bowls had the strength of stone, hence their popularity in public-houses. Stoneware is an intensely hard, partly vitrified, opaque pottery, intermediate between hard porcelain and earthenware. The clay from which
punch-bowls were made contained a larger proportion of silica than was used in any other product of the potter's craft. Such ware was usually finished by salt-glazing.

The exteriors of such punch-bowls were plain except for incised border designs and inscriptions, carried out by cutting into the clay with a sharp point. This incised decoration might be accentuated by the addition of dark-brown slip. By 1740 bowls might be encircled with narrow ribbons of repeat decoration applied with the roulette, a hand-tool fitted with a small revolving wheel cut with an appropriate pattern. Appliqué designs stamped in relief were enrichments favoured on stoneware punch-bowls during the second half of the eighteenth century until the decline in punch-drinking. Such applied stamps included medallions of royalty and celebrities, hunting figures, naval scenes, dances, agricultural and sporting emblems, and so on.

Stoneware punch-bowls of the late seventeenth century were the exclusive product of the Fulham potters, although, from about 1700 until 1760, they met with considerable opposition from Nottingham. Punch-bowls of Nottingham manufacture may be distinguished by their excellent potting and deep-toned russet-brown surface with an unmottled salt-glaze of almost metallic sheen. Nottingham incised designs were usually floral, though sparsely placed stags, trees, and so on, are sometimes to be noted. Derbyshire, the stoneware centre of England, made less highly finished punch-bowls for the public-houses. These might be inscribed with the name of the house and its owner, sometimes with the addition of a date.

A demand for finely painted punch-bowls was created in Queen Anne's day by the East India Company. Not until the late 1760s, however, did the English potters overcome the distortion difficulties encountered in producing porcelain bowls sufficiently capacious for the punch-drinker. Even then these bowls were only produced commercially by factories using bone-ash or soapstone as an ingredient in their porcelains.

Bow certainly made punch-bowls. In the British Museum is an example thought to have been made in about 1760, and another dated 1768 in which the paste is almost opaque and the glaze uneven, tinged with blue and disfigured by black specks.

Derby continued the manufacture of punch-bowls until after the death of George IV. Some very distinguished flower-painting in natural colours and gilding decorated the Derby work. In the mid-1770s, and later, pieces might be marked with 'D' under a crown in underglaze blue.
At this period Worcester was producing porcelain punch-bowls marked with a fretted square in blue. These might be in colours and gilt, with shaped panels in white outlined by rococo gilt scrolls on grounds of dark-blue scale-pattern. Others were printed in black with continuous sporting scenes.

The reign of delft-ware drew to a close when the Staffordshire potters perfected a creamware that was more attractive in appearance, more durable, and no more costly. Punch-bowls made from this pottery, with its rich cream colour, are noticeably light in weight, and may be enamelled with designs in lilac, yellow, green, red, and tan. Many were decorated with black transfers. Those from Leeds may be recognized by their glaze—remarkably hard and glassy, and very thick, thus differing from Wedgwood’s, which was extremely thin.

Early nineteenth-century punch-bowls were manufactured under new and speedier industrial methods. Those of stone china, brilliantly coloured and on stout, almost pedestal feet, were special favourites. Others, of earthenware, were decorated with blue transfer-printing, including the willow-pattern and continuous sporting scenes. Bone-china punch-bowls were more expensive, their decorations often resembling those of the soft-paste porcelains made in the previous century.

Reproductions of the finer eighteenth-century porcelain punch-bowls have been made with forged marks. ‘Chinese-Lowestoft’ armorial examples of large size, and those with hunting scenes in brilliant colourings, are too often found in proof condition. Liverpool delft punch-bowls with fully rigged ships sailing the seven seas are always desirable and, therefore, costly. The copyist has come to the rescue with fakes just as costly to buy and difficult for any but the chemist or the life-long expert to detect.


31. Dresden porcelain figures from the Italian Comedy, modelled by Johann Joachim Kändler, displaying all the merriment and abandon of eighteenth-century carnival. In the collection of the Hon. Mrs Ionides.
VI

Dresden Porcelain Figures

The boast of a boy still in his teens, that he could turn base metals into gold, gave to Saxony the distinction of being the birthplace of European hard-paste porcelain. Johann Friedrich Böttger (1682–1719) as a boy displayed all the potentialities of a great chemist. In 1696 his father, an official at the Mint, sent him to Berlin to study under Zorn, an eminent apothecary. Here, associating with a coterie of fellow pupils destined to become distinguished chemists, he became convinced that he could discover the Philosopher’s Stone and convert lead into gold.

Mysterious reports reached King Frederick I of Prussia that Böttger was actually achieving this miracle. The magician was at once commanded to appear before his king and demonstrate his fantastic powers. Böttger, alarmed at the possible consequences of his failure to produce gold for an extravagant king anxious to replenish a depleted treasury, fled to Saxony, where he studied medicine at the university of Wittenberg until another monarch, Augustus the Strong, Elector of Saxony and King of Poland, heard of the gold-making alchemist.

In November 1701 the boastful Böttger was arrested and conveyed to Dresden, where, provided with a liberal subsidy and scientific assistants, he was commanded to produce the precious metal. Costly experiments continued for four years, and Böttger occasionally produced nuggets of gold which he claimed to have made from copper. Financial aid ceased in the spring of 1705, and the unlucky gold-maker was consigned to the fortress of Albrechtsburg, where he remained a prisoner until the autumn of 1707. Then, at the request of Walther von Tschirnhausen, he was transferred to the state-subsidized porcelain laboratories at Dresden. That was the end of the search for gold. Böttger and his fellow research chemist now plunged energetically into the more practical problem then vexing every leading chemist in Europe—how to make white porcelain such as was being imported from China.

The two chemists quickly succeeded in producing an attractive faience and
a hard red stoneware resembling Chinese boccaro. The red stoneware is of particular importance to the story. Not only was it a valuable product in the struggling early days of financial difficulty, but it was the material in which Böttger produced the earliest figures—forerunners of the porcelain exquisites that were to be Meissen’s most endearing creations. It is especially notable that these included not only Oriental figures but even some representations of characters from the Italian comedy, such as Kändler was later to render immortal. So highly gratified was the king with these discoveries that in addition to supporting the chemists with a monopoly of concessions he provided the money that enabled them to establish the ceramic industry in Saxony.

With those positive achievements behind them the two chemists experimented with increased vigour towards the production of a white hard-paste porcelain. The Chinese porcelain makers had always fired body and glaze in one operation. Böttger suggested a new technique—that of firing the moulded clay into an absorbent biscuit and glazing this at a considerably higher temperature.

Jacob Bartelmei, Böttger’s physician, was employed to scour Saxony for samples of suitable experimental clays. From Colditz he brought a clay which to the chemists’ joy turned white in the kiln. Combining this with silica and alabaster, they produced an unglazed white porcelain shortly before Tschirnhausen’s death in October 1708. Böttger continued the search for a satisfactory glaze, and on March 28, 1709, he was able to report triumphantly to the king that he had discovered the materials and processes by which he could make ‘the good white porcelain with the finest glazing and painting in such perfection as to be at least equal to, if not surpass, the East Indian [Chinese] production’. Two small cups, decorated with enamel, accompanied the report.

Colditz clay proved to shrink more than one-third in the kiln, causing a considerable distortion. This was finally remedied by using a new china clay, named Schnorr’s white earth, after the owner of the land upon which deposits were found. At once there was an improvement in the quality of the porcelain. Every precaution was taken to preserve the discovery, deaf mutes being employed to quarry the clay, which was despatched to the factory in sealed casks. Even with this clay, impurities gave the porcelain a slight yellow tinge, and the glazed surface was far from smooth. Lack of experience in working processes restricted manufacture to such articles as could be turned simply on the potter’s wheel. Not until 1715 did Böttger produce a white, faultless china,
decorated under the glaze with raised ornament such as masks, flower wreaths, and acanthus leaves.

Meanwhile, despite strenuous efforts to maintain secrecy, the eagerness of other European centres to establish porcelain factories was bound to prove a dangerous inducement to Meissen workmen. Even before Böttger’s death the gilder, Konrad Hunger, from Meissen, had established a pottery at Vienna, where he was joined by Samuel Stölzel, one of the few men entrusted with the secrets of Meissen’s paste-mixing rooms. Such desertion was a treasonable offence, and it is sufficient indication of Stölzel’s supposed value that he was pardoned by the Elector and returned to Dresden in 1720. More important to the story of Meissen’s development, however, was the fact that he was accompanied by Johann Gregor Herold (1696–1775), already an accomplished decorator and master of pigments, and soon to prove an able technician possessed of the organizing ability that Böttger had lacked.

When Herold arrived at Meissen the large number of wasters resulting from the final baking was causing considerable concern. Several years were required to overcome this, the answer being found, as Böttger had long realized, in building kilns capable of producing much higher temperatures than formerly. At this time two kinds of paste were being made: the so-called blue paste, which was blue before firing and from which a clear white china resulted; and the white or ordinary paste, which fired to a yellowish tint and was liable to be flawed with small holes.

At Böttger’s death the art of decorating was not far advanced, little except gilding being used. The cups he had presented to Augustus in 1709 were enamelled in colours with flower-sprays, but when Herold joined the firm in 1720 no enameller was employed, and only one gilder. Nevertheless, in a short time Dresden was painting Chinese patterns in blue, sea-green, iron-red, and lemon-yellow.

Dresden porcelain of the 1720s followed the early baroque forms derived from contemporary silversmiths, while decorative motifs and colours followed designs adapted from imported Oriental porcelain. Considerable progress was made in the production of domestic ware, breakfast services being popular. Such a service consisted of six cups and saucers, a slop-basin, tea- and coffee-pots, tea-caddy, sugar-basin, and, if required, goblets for chocolate; a milk-jug was not included in the service until 1731. Considerable progress was made in the development of ornamental ware, including chimneypiece ornaments in the form of vases, urns, and goblets in sets of five or seven. From 1725
Oriental decoration tended to be replaced by original designs. Pictures and coats of arms might now be enclosed in gold cartouches consisting of ribbon-work and web-like flourishes.

Reference has already been made to Böttger's stoneware figures. This important side of the ceramics industry was taken further when, in January 1725, a consignment of figures arrived at Dresden for reproduction in porcelain. These were 161 'models of different pieces in their national costumes and other figures'. It is thought that the wooden forms for these were carved by Gottfried Müller. No permanent works modeller was employed, however, until 1727, when Johann Gottlob Kirchner was engaged. Lacking previous experience in ceramics, he slowly accustomed himself to the work, but the fantastically large pieces demanded of him distorted during firing. He proved an unsatisfactory employee, and was dismissed in little more than a year; but in 1730 he was recalled at a larger salary and given the title of 'model master'. It was as Kirchner's assistant, a year later, that the Elector personally appointed a young sculptor named Johann Joachim Kändler, and commissioned him to produce large vases and animal models.

Kändler was as staunch an apostle of form as Herold was of painting, and the younger man gradually eclipsed the older. Recognizing in porcelain a suitable plastic medium for the little statuettes and figure-groups now associated with Dresden, Kändler revolutionized the character of the craft. The change was, of course, gradual, but within a few months of his engagement at Meissen Kändler had established himself, re-designing the knob finials decorating domestic ware and being responsible for introducing a slightly raised ornament over the whole rim-surface of many plates. At this period, however, his real genius for delicate figure-models had not yet manifested itself: he was still bound by the baroque traditions fostered by Augustus the Strong, and the size of much of the early sculptured work was as entirely unsuited to the manufacturing processes involved as it was out of harmony with the whole aesthetic appeal of the material. Nevertheless it revealed Kändler as a brilliant animal sculptor. His life-size models of birds, for example, even when produced entirely in the white, express not only life and rhythmic movement, but also the particular airs and graces of their separate species.

Among the figures of this type modelled by Kändler may be mentioned his famous Padua rooster modelled in 1734, a magnificent pug-dog, a turtle-dove, a white Spanish horse led by a Moor, a camel, and a flying stag. A porcelain eagle made by Kändler at this period measured six feet across its
outstretched wings, but the famous porcelain statue of St Peter, ten feet six inches tall, produced by Kirchner and Kändler in collaboration, was still more expressive of the attitude to the ceramic medium adopted by Augustus and not wholly abandoned after his death.

The year 1733, in which Augustus died, was in several ways immensely important in the Dresden story. Augustus was followed by his son, Frederick Augustus II of Saxony, who succeeded to the Polish throne as Augustus III. But it was this king's minister, Count Heinrich von Bruhl, who thereupon became the principal influence on porcelain manufacture, and remained director of the factory for thirty years. The same year witnessed the departure of Kirchner and the appointment of Kändler as master of models. Sure of Von Bruhl's approval, Kändler was in a position to develop his work as he wished. Nevertheless, the change from baroque magnificence to the more delicate, effeminate charms associated with Kändler's interpretation of the French rococo mood came slowly. Technically, Kändler now believed himself master of the new material and established the mode of working which he maintained throughout his years at Meissen. Assistants perfected to a certain extent the figures he outlined, leaving Kändler himself to correct such vital details as facial expressions and hands where necessary. Thus, with a few assistants, he was able to create a phenomenal number of brilliantly composed and executed models and at the same time improve technical methods. He invariably worked long hours of overtime and by this means more than doubled his basic wage.

Kändler continued his vividly realistic animal sculpture, but on a smaller scale, and in 1734 despatched 439 animal figures to the king. But it was with his human figures and groups that he broke away from the Oriental motifs that had long dominated Dresden. Trade with France had led to the introduction of the Watteau manner, and Kändler's delicacy of touch, his feeling for rhythmic composition, and his ability to handle elaborate groups without confusion and with the lightness essential to his medium, resulted in the production of superb table ornaments composed to be viewed from all angles. Early examples of these figures may be regarded as still associated with the baroque phase of Meissen work: there is a masculinity about the pose and a richness in the application of the strong, intense colours and black.

While more ambitious figures issued from Kändler's studios, his best-known productions are the Italian comedy figures. Such figures had been produced years earlier by Böttger, but it was Kändler who possessed both the mastery
of modelling technique and the quality of porcelain to catch their whimsical moods in inimitable poses and facial expressions. The professional improvised comedy, or commedia dell' arte all' improviso, appears to have evolved from a set of characters playing in conventional costumes, established by about the middle of the sixteenth century. The play could be performed anywhere with the simplest of scenery and depended for its success on spirited impromptu acting and good teamwork. Several of the characters were known by various names, and as a result there is considerable variety in the titles given to the costumed characters portrayed by Kändler and his successors, most of which appear to have been based on the illustrations from Riccoboni's Histoire du théâtre italien, published in Paris in 1730. 'The Harlequin', the chief character in the play, wears a coloured patchwork costume and has a close-cropped head. Other figures in the series include 'Brighella', the intriguing busybody, characterized by his beard and short cloak, and 'Pantaloone', the comic old man with a pointed beard. 'Pulcinella', the merry fellow, wears an expansive collar and a tall, pointed hat, and is known by an enormous hump. The braggart 'Captain' has a nose of phenomenal size and carries a sword; the 'Pierrot' wears a white mask, a white hat, and costume with large buttons. The doctor and the lawyer are other notable figures in this group. The female figures are all collectively termed 'Columbine', and, apart from the female counterpart of 'Harlequin', who may also wear a costume of coloured patchwork, they appear to have been allotted no set costume for any of their parts; but their feminine grace is in marked contrast with the grotesque style and sometimes harsh humour of the men.

The variety of vivid colours exquisitely applied to these little figures is inexhaustible; no two examples, even of the same model, display the same combination. The poise and liveliness, the vigour and joie de vivre in the Kändler models, show the confident delight of a master ceramic modeller in the problems of his medium. The tilt of the head, the rhythmic line of a hand, the perfect blending of angularity and grace, at once distinguish his work from that of inferior successors using the same models.

Among the most important in this series were the 'Harlequins', the first of which was 'The Seated Bagpiper', dating from 1735. The twisting, well-balanced movements expressed in this long series of figures, the clear whiteness of body and glaze, the elegant distribution of delicate accessories and colours, make them the happiest expression of Kändler's art. No finer examples of his genius are to be found than in the extensive collection of the Hon. Mrs
Left: A rhythmically composed figure in which every detail of pose, proportion, features, and expression typifies Dresden work of the best period. Height 8¼ inches. circa 1735. Right: An exquisitely modelled figure of Scaramouche. Height 7¼ inches. circa 1740. In the collection of the Hon. Mrs Ionides.
Ionides, at Buxted Park. These figures with their bizarre expressions were obviously very popular, since Kändler modelled such a long series, in a remarkable variety of vivid poses.

It must be emphasized that the many delightful figures which Kändler had introduced by 1740, from gaudy 'Pantaloons' to statuesque crinolined lady, constituted quantitatively only a very small part of the factory's output. In 1740 Kändler was initiated into the trade secrets of the whole process of porcelain manufacture. The modellers, moulders, turners, and others were placed under his control. Herold, however, still remained his chief, and both played their own important parts during what is now regarded as the golden period of Dresden.

The rococo style gained a firm foothold at Meissen during this decade, expressed in decorative flourishes and cambered surfaces, in an avoidance of symmetry in form and ornament, and a delight in grace, triviality, and daintiness, particularly adapted to porcelain. Although the factory was several times enlarged, orders always vastly exceeded production possibilities.

The Kändler figures of this period were astonishingly varied. The early 1740s saw the introduction not only of jocund comedy figures but of naturalistically modelled men in national costumes, known at the time as 'Peoples of the Levant'. These were based on one hundred engravings published in Paris in 1714. They included a richly dressed Turk, a well-armed Pandar, six Oriental figures in their national dress, as well as Persians, Bulgarians, Poles, Albanians, and others. For his long series of craftsmen Kändler found inspiration in Bouchardon's Cris de Paris.

'The Monkey Band', a satire by Kändler on the Royal Orchestra at Dresden, is a composition of twenty-one monkeys, dressed in coloured costumes and playing various musical instruments, headed by the conductor. Kändler's lively mockery of contemporary characters is also to be seen in such groups as those of the court jesters 'Fröhlich and Schmiedel', the latter tormented as usual by a mouse, a subject well suited to Kändler's often caustic humour. A magnificent series of miners appear to have originated from engravings which depicted a festival of miners at the Saxon court, one of the models being supposed to represent Augustus. Most of the novelties originated in Kändler's mind, especially those in which utensils are combined with the figures, such as the gardener's boy and girl mounted on salt-cellars. He also made a long series of soldier types.

As the mid-century approached he met the changing demands of fashion
with such groups as 'Muses and Putti', 'Neptune', and 'Apollo', and representational figures of the Seasons, the Senses, the Continents, and so on. By the outbreak of the Seven Years' War, however, something of the earlier vivacity was gone, in design as in colour, and by the end of it the leadership in ceramic art had passed to Sévres.

The actual building of porcelain figures was a long and complicated process. Originals were seldom used, as the work involved cutting models into suitable sections—head, body, limbs, accessories—from which individual moulds were made. The moulded sections were assembled and temporarily held in position by a thin slip made of clay and water. The workmen smoothed the surface and joins, and accentuated lines with a flat knife and a sharp tool. Outstretched arms and other projecting segments were propped by an elaborate system of clay scaffolding. This prevented distortion and warping, and might be assisted by the sculptor's skilful arrangement of accessories, such as a flowing cloak or a tree stump. Shrinkage took place during firing to the extent of about one-third, the sections being united by fusion into a perfect whole. Enamels were applied over the glaze, except for rare instances of underglaze blue and yellow.

Each of Dresden's master modellers displayed individual characteristics and many a porcelain figure may thus be attributed accurately to the responsible artist. Such details as the type of nose, the angle of inclination of the head, and the general proportions of the figure aid recognition. Kändler, for instance, usually modelled his figures with slightly upturned noses. Johann Friedrich Eberlein was an assistant who produced independent work of high quality differing from Kändler's. A characteristic is the slanting line of the eyes seen in all his figures: the face is narrowly shaped, with a nose drawn downward and a particularly sharp chin. Eberlein was keenly appreciative of the sculptural possibilities afforded by porcelain. He was often satisfied with an allusion and tended to make the larger parts of garments in wide surfaces.

In 1743 Peter Reinicke (1715–68) joined Kändler as a sculptor, and quickly assimilated his style. Between 1734 and 1744, for the Duke of Weissenfels, he executed several harlequins and clowns, the 'Beltrame and the Doctor', and he made a few criers, but these all lack the vitality and artistry of Kändler's similar statuettes.

The details of model-makers are missing from the Dresden archives for the years between 1748 and 1764, and work during that period can only be ascribed according to known characteristics. Elias Meyer, a former court
32. Dresden porcelain figures by J. J. Kändler: ‘Lelio the Lover’ and ‘Tragic Harlequin’ from the Italian Comedy, and a bagpiper. In the collection of the Hon. Mrs Ionides.

33. Seated Harlequin and Columbine, modelled by J. J. Kändler in 1743. In the collection of the Hon. Mrs Ionides.
Bristol enamel glass. The fluted vase is gilded with naturalistic flowers and insects; the remainder are ornamented in enamel colours. The decoration on the left-hand vase is attributed to Michael Edkins. In the Victoria and Albert Museum.
sculptor at Weimar, appointed to Dresden in 1748, modelled his figures with tall, slim bodies and small, slightly tilted heads, having piquant and faintly vulgar features. Even Kändler was slightly influenced by him.

Dresden porcelain is all hard-paste, and although extremely resistant to temperature and climatic influences, nevertheless mellows with age; its glaze has very gradually lost its original hard brilliance. A two-century-old figure will reflect much less light than a recent copy placed in a strong beam of light.
VII

Enamel and Milk-white Opaque Glass

Opaque-white glass was invented more than two thousand years ago by the Egyptians, who developed a formula closely resembling that in use today, their opacifying agent being oxide of tin. The Romans at the height of their power pressed opaque-white glass into pattern moulds and backed it with coloured glass, creating some splendid cameo work. The Portland Vase is an outstanding example. The art of making this glass seems to have been lost in Europe, however, until it was revived by the Venetians at Murano towards the end of the sixteenth century. White plates and bowls were made, but it is better known in the fine thread-like filaments of the celebrated latticino work.

‘Milk-white glass and strong’ were the instructions given by the London glass-seller John Green when importing opaque-white glass from Allesio Morelli of Murano during the years following the restoration of the monarchy in 1660. Sketches accompanied the original orders, and among those now preserved in the British Museum are undecorated jars and bottles in shapes copied from Chinese porcelain: no examples of these imports are known to remain.

White opaque glass was probably being made in England from late in the seventeenth century. Blancourt’s Art of Glass (London 1699) published two formulae for making white opaque glass taken from Neri’s L’arte vetraria (Florence, 1612). The process required: ‘12 Pound good Crystal Fritt, two Pound of Calcined Lead and Tin, one of each, and half an ounce of Manganese prepared ... the glass will be white as milk’. That such glass was a negligible English production during the first half of the eighteenth century is shown by its omission from the 1745 Excise Act, which imposed a tax of one penny a pound on the raw materials used in making flint-glass and white glass.

Authorities appear consistently to have misunderstood the use of the term ‘white glass’ so often associated with eighteenth-century glasshouses, and have wrongly drawn the conclusion that opaque-white glass was being manufactured. The frequently quoted advertisement from the Bath Chronicle of June 7, 1769, announced that: 'Notice is hereby given that the Glasshouse on
Redcliff Backs [Bristol], late Crosse and Berrow, will be disposed of on advantageous terms . . . the stock in trade consisting of every sort of the best White and Flint Glass Wares'. The contemporary term for opaque-white glass, however, was enamel glass. This is noted in several advertisements dating from 1764 to 1769.

The meaning of ‘white glass’ was clearly defined in *Instructions to be Observed by the Officers Concerned in Ascertaining the Duties on Glass*, published privately by the Excise Department to assist its officers in administering the Excise Act of 1745. Here it is recorded that ‘in Flint Glass Houses there is likewise a Metal known as White Glass, being made from the refuse or waste in crown and plate Houses and Flint Moils with Sand, Ashes, &c., which are generally near 30 hours melting before fit to work, save in small pots’.

The Redcliff Backs Glasshouse advertisement, then, was not referring to enamel glass, but to an inexpensive clear glass used for vials. However, the new proprietors, Messrs Little & Longman, were soon producing enamel glass, for early in 1762 they had a consignment decorated by Michael Edkins, a free-lance enameller of delft-ware.

The earliest announcement yet noted specifying enamel glass appeared in the *Bristol Journal* in 1764, when a new glasshouse established in Chepstow by Williams, Dunbar & Company, was advertised as a ‘flint and enamel Glass Manufactory’. In 1766 Josiah Perrin, a former employee at Redcliff Backs, established a glasshouse at Warrington, Lancashire, and in the following year announced in the *Liverpool Advertiser* that he had opened a local warehouse for the sale of ‘White and Painted Enamel Glass’. It is reasonable to assume that Perrin’s enamel glass was produced by methods similar to those he would have seen employed at Bristol. In the same year Jonas Phillips, of the Glass Warehouse, Lynn, advertised ‘complet sets of neatly painted enamel jars, the Colours more beautiful than China’. The New Glass Houses, Sunderland, advertised themselves as manufacturers of ‘white glass’ in 1769.

Enamel glass was a production rivalling the more costly soft-paste porcelains then being made by several English potters, the number of wasters being very much smaller. In the universal quest for the secret of making true porcelain resembling that of the Orient, the glass-centre of Bristol was early in the field. William Lowdin produced such ware from about 1748 until 1752, when the factory was advertised in the press as having been ‘united with the Worcester Porcelain Manufactory’.

While potters were endeavouring to bring clay to the point of delicate
translucency, glass-makers were working in the opposite direction and eventually Bristol succeeded in producing a virtually opaque-white glass with vitreous characteristics less obvious than its superficial ceramic resemblance. Sir A. H. Church’s analysis of Bristol enamel glass at the Royal Academy of Arts was: silica, 47·75; potash, 6·39; lead oxide, 43·71; oxide of tin, 0·86; soda, 0·82; alumina, 0·33; lime, 0·14. This lead-potash metal was difficult to manipulate, great skill being required on the part of the glass-blower. H. J. Powell has recorded in Glass-making in England that ‘small decanters and hollow-ware, thin in substance, light in weight, and graceful in form, were blown’. Moulds were used successfully in some pieces, the section of the metal being thicker than that of blown work.

The enamel glass of Bristol and of Warrington has a dense texture and a very white tint, likened by Hugh Owen in Two Centuries of Ceramic Art in Bristol to the soft paste of Sévres and Derby. The dense whiteness of its fabric is due to the addition of a small amount of tin oxide to a flint-glass mixture. Not only did the tin produce the desired whiteness, it also made the glass extremely brittle, with the result that although considerable quantities must have been made during a period of about twenty-five years, comparatively little remains.

If held to the light, Bristol enamel glass shows a dense creamy white and is translucent to about the same degree as Oriental hard-paste porcelain. Unlike the milk-white glass made at other English glass-centres, Bristol enamel glass is too opaque to display opalescence. Exceptions are to be found in some blown hollow-ware in which the lower walls may be thinner than is normally the case, such parts having a bluish tint. The surface feels rather soft to the touch and is fine and smooth: sometimes a very fine glaze is noticeable. Its high lead-content causes this glass to be very soft, with the result that it scratches easily, the marks eventually showing as black scars.

The blown enamel glass of Bristol has a distinct punty-mark on the base of each piece. The rod was usually broken off roughly, leaving a sharp scar around which twist lines are sometimes seen, showing that the rod was applied with a twist movement. In late pieces the rough projection was ground off. A frequent tendency with blown ware was for the surface to form slight striations easily detected with the finger-tips. Moulded pieces are appreciably thicker in section than those that are blown, and have no striations. Moulded ware might be hand-finished on the punty-rod, which was attached by a cement of clear flint-glass.
ENAMEL AND MILK-WHITE OPAQUE GLASS

After examination of authenticated specimens in museums the collector will find no difficulty in distinguishing between the enamel glass of Bristol and Warrington and the milk-white glass made elsewhere.

Opaque-white glass, like all soft porcelains, has no heat-resisting properties: domestic hollow-ware subject to heat in use is therefore rare and when found is usually very thick of body. Otherwise the list of objects made covers almost the whole range of goods issued by the porcelain-makers, whose designs, in the finer pieces, were consciously imitated. Outstanding are models after the Chinese such as trumpet-mouthed beakers and pear-shaped or oviform covered vases, often in sets of five for use as mantel garnitures; few sets have survived intact. Collectors look for flower-holders in the form of plain, white, spirally-twisted cornucopia shapes; tea-canisters with gilt metal caps bearing Staffordshire enamel tops; candlesticks and tapersticks with finely reeded stems rising from highly domed feet, their tall, straight sockets fitted with spreading nozzles of Staffordshire enamel rimmed with gilt metal; five-bottle cruets stands, their bottles decorated with floral sprays and labelled in gold—vinaigre, oil, pepper, mustard, sugar—and fitted with appropriate tops in silver or gilt metal. Jugs, sugar-basins, scent-bottles, finger-bowls, and stands may also be found in a representative collection.

Bristol enamel glass is celebrated for the high quality of its decoration painted in brilliant colours. Three methods of decoration were used: permanent muffle-fired enamels; oil or varnish colours hardened by heat but not properly burned in, and possibly the work of miscellaneous retailers who bought in the white; oil gilding fired at a low temperature. Muffle-fired enamels and gilding might be used on a single piece.

Three principal styles of decoration are found on ware enamelled in Bristol, flowers and foliage forming the most frequent motifs. First were the frankly imitative Chinese motifs and compositions, some primarily floral, others introducing tall, attenuated human figures, exotic birds, and rockeries. Second are the sprigs and posies of characteristic English flowers painted in a naturalistic manner. Third are boughs upon which are perched plump, bright-coloured native birds such as goldfinches and bullfinches.

Ceramic decorators, whose technique usually betrays experience in delftware, appear to have been chiefly employed, and the work of half a dozen principal hands has been noted, including that of a painter whose individualistic style appears on some of Lowdin’s early Bristol soft-paste porcelain. Over-elaboration with borders, bands, and unnecessary ornament was consistently
avoided. Many Bristol ceramic decorators maintained studios and muffle-
furnaces in their own homes. Technique and experience equal to that of the
Bristol decorators is seldom, if ever, found on the milky-white glass made
elsewhere.

The only free-lance decorator of this ware whose name has been preserved
was Michael Edkins. According to a vague tradition, he painted coaches and
theatrical scenes and was a singer of some ability, having appeared at Covent
Garden before settling in Bristol during 1760 as a painter of delft-ware. His
ledgers from that date until his death in 1787 have been preserved. During
this period, some 350 items are associated with glass decoration, but many of
these specify blue glass. This clearly indicates that 'the immense output of
opaque-white glass painted by Michael Edkins' noted by several authorities
has little foundation in fact.

The firms for which Edkins painted enamel glass were Little & Longman,
1762–67; Longman & Vigor, 1767–87; Vigor & Stevens, 1775–87; and
Lazarus Jacobs, 1785–87. The ledgers show that he received extremely poor
remuneration for his work in this medium, recording, for instance, '1 sett of
Jars and Beakers 5 in a sett 2s.; 4 Enamell Cannisters 1s.; 18 Enamell Basins
1s. 6d.; 13 Canns and Milk Jugs 1s. 1d.'

It is assumed that Edkins painted enamel glass in the colours and patterns
he used for delft-ware decoration. A collection of Bristol enamel glass made
by his grandson included examples believed to have been painted by Michael
Edkins. On this slender evidence collectors attribute to Edkins all the admir-
ably painted finches, tight bunches of curly flowers, and flower-wreaths con-
taining fuchsias and roses with flourishes in the Louis XV manner. There is
reason to consider it unlikely that he painted the Oriental figures featured
attractively on this ware and displaying a touch of the grotesque which saves
them from being mere servile copies of the Chinese.

In the Warrington and North Cheshire area I have noticed various examples
of enamel glass decorated with black transfer-prints. These obviously con-
tained lead and it may be assumed that they came from Josiah Perrin's glass-
house in Warrington. Some of these specimens were over-painted in enamel
colours and enclosed within frameworks of rococo scrolls. The majority
noted were vases about twelve inches high and badly disfigured with scratches.

The transfers were probably applied by Sadler & Green of Liverpool to
ware supplied by Perrin's warehouse in that city. Sadler & Green at that
time carried on an extensive business in decorating with transfer-prints the
35. Three white opaque glass scent-bottles. Dated (left) 1756; (centre) 1780; (right) circa 1760. In the Cecal Higgins Museum.


pottery sent to them for the purpose by the potters of Liverpool, North Staffordshire, and Leeds.

Scent-bottles of both enamel and milk-white glass are collected. These at first were plainly blown and ornamented on both sides with posies. Dated examples in enamel glass appear to indicate that scent-bottles were made during the late 1750s. Those in the Schreiber Collection are ascribed to Bristol: the inference might then be drawn that the pre-1760 examples were experimental pieces issued from Lowdin’s glasshouse. Scent-bottles from about 1765 might be enamelled with pastoral figures, exotic birds, naturalistic flowers, and diaper patterns in the manner of South Staffordshire enamels. It is possible, therefore, that some of these, and snuff-boxes in the same medium, originated in the Glassborough glasshouse, known to have been operating in 1761 less than a mile from the nearest Bilston enamel factory.

There is no evidence that enamel glass opacified with tin was made elsewhere than at Bristol and probably Warrington. Yet many collectors and dealers persist in classifying with it, and without distinction, the inferior milk-white glass. For the most part such glass consisted of a composition of soda-lime and potash opacified with arsenic or bone ash. This appears not to have been covered by the Excise Act of 1777 which increased the tax and included enamel glass within its scope. Consequently there was a considerable output, mostly in the white, until the glass taxes were repealed in 1845.

This glass, milk-white in reflected light, upon close inspection will be seen to have a creamy hue, often with a touch of blue particularly noticeable at the punty-mark. If held to the light, milk-white glass opacified with arsenic displays a ruddy opalescence known to glass-makers as ‘sunset glow’, often with a tinge of bluish green at the edges. Such ware was made at most of the English glass-making centres, at Sunderland, Stourbridge, Glassborough near Wolverhampton, and in Lancashire and Yorkshire. Variations in quality, thickness, and opacity occur, and decoration was frequently unfired and consequently has worn away.

Reproductions of the enamel glass of Bristol have been made: some may be detected by the faint trace of blue in their composition. Old, undecorated milk-white ware has been enriched with enamel colours in designs resembling those found on known pieces of enamel glass.
Old English Wine-bottles

Wine-bottles of thick, dark-green glass possess the appeal of all antiques made by skilled craftsmen for a specific, unambitious purpose. Their solid, satisfying shapes, lustrous surface texture, and individualistic seals and cyphers recommend them even to those who make no attempt to find their chronological sequence—let alone to discover the historical reason underlying each change in style. Yet there are few collectors' items whose beginnings may be traced with such near-certainty.

Although fragile bottles of a poor-quality glass had long been made in this country, it appears fairly certain that the first of these more valuable pieces were produced late in the reign of James I. Inventories taken in the first half of the previous century record many wine-bottles of tin at prices varying from ninepence to one shilling, whereas none of glass has been noted. During Elizabethan days, osier- or leather-covered glass bottles, inventoried as 'wanded bottles' at tenpence each, might be used for wine. Other references indicate that English bottled ales were contained in vessels of an inferior light-green glass such as had for long been made in English glasshouses.

At this period wine-bottles of thick dark metal were imported from France. The English glass trade had operated under a partial monopoly from 1592, and in 1615 its owners prevailed upon James I to prohibit the importation of glass. Three years later, Sir John Mansell acquired the monopoly of the entire glass-making industry in Britain, and thereupon he established at least one glasshouse specializing in the manufacture of dark green wine-bottles such as had formerly come from France. The French shaft-and-globe pattern was copied, long-necked and with a blown bulbous body. The English glass-men, however, at once evolved a method of moulding wine-bottles in which the body was made more angular, with a pronounced shoulder, and it is among these that the collector finds his characteristic pieces.

The wines chiefly drunk during the early eighteenth century were claret from France, sack from Spain, and sparkling Rhenish wines. Claret and sack were imported in barrels in which they were matured. The wine was then
38, 39, 40. Top: Three wine bottles dating between 1660 and 1690. Centre and below: A chronological series of sealed wine bottles, one for each decade from 1713 to 1786. In the collection of Messrs George G. Sandeman, Sons & Co., Ltd.
41. Sealed bottles for each decade from 1794 to 1823. In the collection of Messrs George G. Sandeman, Sons & Co., Ltd.

decanted into bottles by the vintners. Such bottles were stoppered with corks tied down with pack thread, which was anchored beneath a string-ring encircling the neck a short distance below the mouth. The corked mouths of the bottles were dipped into a mixture of warm resin and pitch to prevent access of air or leakage of the wine. The bottles were then placed slopewise on sand or sawdust strewn to a thickness of at least three inches on the floor of a cold cellar. These bottles of wine were sold singly to customers.

The sale of wine by the bottle was prohibited from 1636. The wine-bottle then became one of the essentials in well-to-do households. A barrel of wine would be ordered from the vintner, who was then supplied with a quantity of wine-bottles, each bearing a glass seal impressed with the purchaser's personal crest or cypher. The connoisseur of wine considered it essential to be present at the bottle-filling to prevent the bottler from adding a little water to each bottle before filling it with wine. Any liquor left in the barrel was the bottler's perquisite. Samuel Pepys recorded that on October 23, 1663, he went 'to Mr Rawlinson's and saw some of my new bottles, made with my crest upon them, filled with wine, about five or six dozen of them'.

It was fashionable to table wines in these bottles, from which they were poured direct into the goblets. Occasionally an example is found with a stout loop-handle to assist when used as a serving bottle.

By the end of the seventeenth century, however, tavern and inn keepers were selling considerable quantities of wine by the bottle, contrary to the ordinance of 1636. In this connection it was reported in a technical textbook published during 1754 'that one would think the glass-makers had entered into an agreement with the keepers of inns and taverns not to make any bottles that hold full measure. There are now none but what hold less, and some considerably so.' By this time there was a tax of twopence a pound on bottle-glass.

Old wine-bottles were made from glass of a quality varying with almost every bottle-house. The collector will find it impossible to assign any bottle to an individual house or even district. The materials used were sand, lime, potash, and sometimes clay. When easily available, such as at Bristol, London, and Warrington, soaper's ashes were used as their alkali, three measures being incorporated to each one of sand. Colour varied, but was collectively known as black, including tones of dark olive-green and olive-amber. Some old wine-bottles in reflected light (light that does not pass through their fabric) display a lustrous greenish hue, probably due to oxidization.
The trade became more widespread with the ending of the monopoly by the Cromwellian administration. By 1695, of the 90 glasshouses established in England, 38 were bottle-houses with a total production of 240,000 dozens of quart bottles a year.

These old wine-bottles were, of course, hand-made. Bottle-making was a specialized branch of the glass trade owing to the skill required in ensuring the correct thicknesses in various parts of the structure. The bottle-maker lifted a gather of molten glass from the pot by twisting the hot end of his blowing iron on its surface. A second gather was picked up over this, and the whole rotated in one direction only, over a tub of water. This caused the ball of molten glass to lengthen and run into a pear shape. This was then rolled upon the marver—a large flat stone measuring about three feet by two feet and about six inches thick, supported on a stone column and tilted slightly away from the worker.

The glass-blower then blew down the quarter-inch tube of his blow-pipe, thus distending the gather into a hollow bulb known as a parison. This was roughly manipulated to the required shape by an apple-wood tool. The base was flattened upon a marble slab set into the ground, and the parison was shaped into bottle form by putting it into a warm earthen mould set into the ground and blowing it to make it assume this shape. Next, the bottle was reversed and a depression, known as a kick, was made in the base by pressing with a conical tool. The body was then rolled on the marver and a punty-rod was attached to the apex of the basal depression. With the bottle held by this rod the neck was heated in the glory-hole of the furnace and the string-ring applied by winding a thick thread of glass around it near the top. The bottle-maker then sat in his chair and with his pincers shaped and trimmed the neck, rim, and string-ring. The punty-rod was broken away, leaving a rough scar in the apex of the kick, and the finished bottle was placed in the annealing kiln—a slow and inconvenient, but perfect, method of toughening the glass. The kiln was replaced from about 1760 by the lehr, a tunnel some fifty feet long through which the bottles passed on a manually operated, slow-moving conveyor, through gradually decreasing temperatures.

Earthenware moulds enclosed with iron bands were used for shaping wine-bottles from about 1735, and brass moulds are believed to have been in use at Bristol as early as 1750. Bottles stiffen rapidly in such moulds and a quick-setting glass was evolved for the purpose. A moulded bottle pre-dating 1830 may be recognized by the body having a slightly pebbled surface suggestive
of hammering. The mould mark, visible when metal moulds have been used, is clearly discernible at the top line of the body where the slope of the shoulder begins.

The shaft-and-globe wine-bottle, with full-curved shoulders, known throughout the period of its manufacture as the 'long-necked French quart wine-bottle', was blown to shape without the use of a mould, and its base was given a small, narrow kick. In the Northampton Museum is a sealed example dated 1657. During the early eighteenth century, there was a tendency to shorten the neck. Hogarth, in his Rake's Progress, illustrates bottles with tapering necks and crude string-rings in use as serving-bottles. Twelve dozen 'long-necked French quart wine-bottles' were bought at Brandsby in 1744 at one shilling and tenpence a dozen, distinguished in the same bill from 'common quart wine-bottles' at two shillings a dozen. The Brandsby accounts show frequent purchases of the latter at two shillings a dozen; by 1769 they were costing half-a-crown a dozen.

Many seventeenth- and eighteenth-century wine-bottles possess the particular interest of bottles embossed with identification seals. These were produced by the glass-worker, who placed upon the plastic bottle enough molten glass to form a flat seal no larger in diameter than half-a-crown. An inscribed metal stamp was pressed upon this hot glass, the interior of the bottle at the spot being supported by a tool to prevent distortion. In many instances the presence of intersurface bubbles will be noted. Seals might display the owner's crest, name, or cypher. Vintners' bottles were sealed with badge, tavern sign, initials, or other distinguishing mark. In both instances the seal might be dated.

The presence of dated seals from 1630 has enabled collectors to trace the chronological development of the wine-bottle. They class their bottles into six groups: 1620–60, 1650–80, 1675–1715, 1715–45, 1740–1800, 1800–1840. Change of form was gradual and the collector will have difficulty in finding two examples of the first four classes exactly alike, although all were supposed to hold one quart English wine measure.

The earliest authenticated wine-bottle of dark-green English glass is sealed with Raleigh Gilbert's coat of arms and the date 1620. This was recently unearthed, with some contemporary pottery, in the watch-tower of Compton Castle, South Devon. This is an earth-moulded example with a body extending outward from the base, which has a low kick. The diameter of the neck at its lower end measures one-third of that of the body; at its upper end the neck
is encircled by a thin, sharp-edged string-ring about half an inch below the smooth, flat-surfaced lip. At this time quart wine-bottles of English manufacture cost six shillings a dozen and corks fourpence a pound: they were listed as common quarts. Half-bottles or pints were also made.

Between 1650 and 1685 the bottle outline tended to show a more pronounced angle at the shoulder, the sides of the body sloping more steeply inwards towards the base, where, in consequence, the kick was narrower than before. The knife-edge was retained on the string-ring.

Between 1680 and 1715 the wine-bottle became gradually wider and more squat, with a high wide kick in the base. The whole outline at this period reflected the general fondness for curves, the neck, shorter and tapering, joining the body in a smooth curve which harmonized with the more rounded shaping of the body itself. By the end of the period, however, the body had become almost straight again. The string-ring lost its knife-edge, becoming a flatly horizontal little projection with a rounded edge.

Between 1715 and 1745 wine-bottles were longer of neck than during the previous period, with the body narrower and still retaining a high kick. Late in this period the sides of the body became perpendicular, and some had a slight inward slant, curving into the neck with a shoulder more square and pronounced than formerly. The neck was wide where it joined the shoulder, and the string-ring was placed immediately below the mouth.

Squat wine-bottles with curved sides could not be laid down in bins, a method of storage which became usual in this country in George II’s reign. For convenience in binning, bottles with cylindrical sides were essential, but the tendency to straighten had begun much earlier in the century. Hence the shape of the bottles made from about 1730 in earthenware moulds. Little or no change was made in dimensions or capacity. From this time there was a gradual evolution in the shape of wine-bottles, which became longer and narrower, until at the end of the century their form approached the tall cylindrical bottle of today. The string-ring was placed immediately below the lip, and a high kick retained.

During the 1760s, the wine-bottle became taller, with a slightly tapering neck and a cylindrical body about five inches in diameter. During the 1770s and 1780s the body was about four inches in diameter, taller than formerly, with a tapering cylindrical neck and a rounded string-ring immediately below the lip. The kick was deep. Special quart bottles were now made for the fashionable champagne, and cost three shillings a dozen.
During the 1790s and early 1800s, the diameter of the wine-bottle body was reduced to three and a half inches. The shoulders were higher and less pronounced and the finish smoother than formerly. The lip-rim was now deeply collared with a slightly curved outline, the string-ring, projecting less than before, being immediately below.

From 1821 the shoulders of wine-bottles became more accentuated again. A broad sloping lip shaped by a special tool obviated the necessity for an applied string-ring. This feature, with variations, continued until 1870. By 1840 wine-bottles were mechanically moulded and, owing to the use of the snap-case, there was no punty-rod scar.

Other shapes were made to order during the period: for instance, early in the reign of George II mallet-shaped bottles were made for cider, and the moulded octagonal form from about 1730 to 1775. Flat-sided bottles were also made, possibly early examples intended for binning.

Reproductions of early wine-bottles have been made, but these lack the slightly pebbled surface to be found on originals.
IX

Open-flame Glass Lamps

To many a collector a personal find, however small, is worth any number of recognized antiques. In these days, when even the most remote cottage and junk-shop have been ransacked for the more obvious treasures, such collectors must seek for the less publicized type of article. Among these, open-flame glass lamps commend themselves. Thousands upon thousands still exist, shapely little vessels telling their own simple tale, century by century, of domestic needs and the craftsman’s response. Mis-represented as flower-vases, patch-bowls, wafer-holders, they are still offered for sale among minor bric-à-brac, waiting to catch the eye of those who can recognize their real purpose and will introduce them into collections which display, in material, design, and workmanship, the whole chronological story of these once important little vessels.

From the first invention of a primitive lamp, methods of illumination remained virtually unchanged in England until the introduction of paraffin little more than a century ago. Such lamps as existed were simple containers of oil, their unprotected open flame giving hardly more illumination than a candle. Enough light to illumine the page of a book or section of needlework was all that was asked: anything further, such as lighting an entire room, was an enterprise only for the rich.

Anglo-Saxon float-wick lamps consisting of open glass bowls with flared rims have been excavated at Faversham. These are now in the British Museum, where are preserved also several illuminated manuscripts illustrating similar float-wick lamps with oil containers blown from coarse green glass. One of these miniature paintings shows such a lamp lighting the desk of a monastic scribe working in his cell. The furnishings and lighting of such a room resembled those in the better homes of the period. In 1477 Earl Rivers wrote: ‘I have putte mor oille in my lampe to studie by’.

Such lamps of glass, known as mortars and costing one penny each in the fourteenth century, were at that time plain, semi-transparent bowls two or

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three inches high, containing oil upon which floated a 'twyste of hempe', a wisp of flax, or a fragment of either wrapped around a strip of reed. In some districts a plant known as lamp-moss was dried and twisted into excellent wicks. From about 1600, lamp-wicks were sometimes made of cotton, and a special wick yarn was sold at fairs. The wick absorbed and drew up the oil when the free end was lit, thus maintaining a flame.

The fuel generally burned in open-wick lamps was whale-oil, known as train oil and referred to by Barratt in 1598 as 'common lampe oyle'. The best quality was known as sperm-oil. Until late in the fourteenth century no English boats were engaged in whaling. At that time whales were scheduled as 'royal fish' and the king bore the title of Honorary Harpooner. Whale-oil was imported from Spain and Portugal. Not until mid-Elizabethan days did Britain engage in large-scale whaling: by the end of the century the whaling fleet was seven sail strong.

Whale-oil was prepared by boiling the blubber of whales—and of seals, tunny, porpoise, and other fish. This unpurified oil gave a warm yellow flame, odoriferous and smoky, when burning in the lamp. It was expensive enough to keep the candle in common use. Oil pressed from lard was a better illuminant, but more costly. Colza oil made from rape seed was also used. During the seventeenth and early eighteenth centuries, numerous references were made to the use of lamp oil prepared from the castor-oil plant, *ricinus communis*.

The fumes diffused by a burning lamp might be unpleasant, particularly if the oil were tainted or rancid, which was often the case in days when transport was slow. To prevent these fumes from spreading through the room, a small sponge moistened in water was suspended a few inches above the flame. Contemporary accounts suggest that this absorbed all smoke emitted during the evening.

In order to reduce oil consumption it became customary in some districts, from late in the seventeenth century, for the free end of the wick to be carried on a floating disc of cork, the surface of which was protected by a covering of thick copper: from about 1720, discs of tinned iron came into use. Early in the eighteenth century another method was evolved for supporting the wick in a glass lamp: a thin strip of metal with a centrally placed hole for holding the wick extended across the mouth of the oil font, the ends fitting into notches cut into its rim. Snuffers were required to trim such wicks. Floating wicks gave a larger flame and were less liable to be extinguished by a draught than
the later central wick type. Hence their popularity throughout the period of open-flame lamps.

Float-wick lamps of flint-glass date from about 1680, the font being raised on a short stem rising from a flat circular foot. The bowl had straight, spreading sides and measured from two and a half to three inches across the opening. This type continued in use throughout the eighteenth century. From about 1700 one common type of oil font was in the form of a shallow, lipped saucer supported by a short stem rising from a plain, round, sloping foot.

Collectors will be interested in a long series of float lamps dating from about 1770 to 1830 and measuring between two and a half and three inches high. Often mistaken for a salt-cellar when the wick-holder is missing, this design has a font in double ogee outline resting on a flattened knop rising from a thick, flat, circular foot. In blown examples the knop is plain and may contain decorative air bubbles. In moulded examples the foot is usually decorated with diamond pattern or vertically ribbed, the latter sometimes superimposed with spiral ribbing; a dozen or so other ornamental moulded patterns will also be found. In this series the knop is ribbed and moulded in a piece with the bowl, the foot being attached. Foot rims may be shaped with from five to twelve scallops.

A series of these lamps, dating from 1785, was made more stable by introducing a thick square base beneath the foot. Base, foot, and knop were moulded in a single piece. This square base is usually entirely solid and flat beneath: others are found with a hollow cavity beneath impressed with a star pattern. In some instances the rim is encircled with notches, these acting as a support for a wire wick-holder. Vertical ribs moulded on the body of such a lamp were sometimes cut with matching notches.

Glass lamps with fixed central wicks, known contemporaneously as taper lamps, are not known to have been in use until the last decade of the seventeenth century. These, when constantly trimmed, gave no less light than a small candle, at less cost. They were of tough flint-glass. At first the bowl of the footed mortar was enclosed, except for a circular aperture covered by a metal disc through which passed a short upright tube holding a round, plaited wick. From about 1720 the aperture was made with a downward lip enabling the burner to be fitted into a short cork which sealed the font. This type of lamp continued in use for more than a century.

Until 1780 all open-flame lamps with central wicks were fitted with solid, round, plaited wicks of small diameter. Their size was necessarily limited,

45. Float wick and fixed wick lamps in flint-glass. These types were made throughout the eighteenth century. In the Science Museum, London.
because a thick wick was found to produce a very poor flame owing to the centre being inaccessible to the air. To some extent this difficulty was overcome in the early 1780s when the flat ribbon-wick made its appearance, giving a broad, thin flame with but little smoke.

N. Blundel in his Diary of 1707 has recorded that 'Mr Plumb first tryed a lamp with two weaks'. But it was left to Benjamin Franklin to prove, more than half a century later, that a two-burner open-flame lamp would give more light than two single burners. Three-burner central wick lamps were failures.

Central wick lamps burned the same oils as did the floating wick variety, whale-oil being compulsory from 1709, when a law was passed prohibiting 'lamps to be used in dwelling houses wherein any oyl or fat (other than oyl made of fish) shall be burnt for giving light, under the penalty of forty shillings for every offence'. This Act was not repealed until 1831. Vegetable oils and animal fats throughout this period were the monopoly of candle manufacturers. As is detailed in Chapter XVII, even the householder wishing to use kitchen waste for candles for household use required a licence costing one shilling per head of the household. The use of glass open-flame lamps was limited, therefore, by the high cost of whale-oil to the consumer: from two shillings a gallon in 1710 it had risen to two shillings a quart before 1780. The wholesale price in London for a tun of 252 gallons was £14.

Experiments carried out in the mid-eighteenth century to discover the cost of burning whale-oil in open-flame lamps showed that a round wick containing eight threads of cotton yarn consumed in one hour 1/4 oz. of whale-oil costing half-a-crown a gallon. The cost of burning a lamp for twelve hours was 4:57 farthings. Such a lamp gave illumination equal to a candle of eight or ten to the pound and seldom needed snuffing, while casting a strong steady light. If a wick made up of four threads of cotton yarn were used the cost of lighting was about halved.

When benzine was discovered in 1825 and a method of combining turpentine and alcohol developed two or three years later, there was a demand for the repeal of the 1709 Act. 'Camphene' and other 'burning fluids' were then marketed under proprietary names. These burned twice as long as good-quality whale-oil, gave brighter illumination, emitted no disagreeable smell, if spilled left no unsightly grease marks, and cost less. Unfortunately, lamps burning these fuels had a tendency to explode under careless treatment and were often termed 'liquid gunpowder'. This danger was minimized by making
wicks more tightly compact and by narrowing and extending the tubes to remove the flame as far as possible from the reservoir of explosive fluid. When twin burners were used they were set at a slight incline to separate the tips. Each was provided with a closely fitting extinguisher to prevent the fuel from evaporating when the lamp was not in use, and to minimize the odour of the extinguished wick.

None of these lamp fuels possessed great power of ascending the wick, and although oil-containers might be wide and shallow the flame rapidly diminished in size and efficiency. With the discovery of paraffin, illumination by lamp was revolutionized, and cheap paraffin lamps entirely displaced open-flame lamps during the 1850s.

Central-wick open-flame lamps of flint-glass were made in considerable numbers during the eighteenth and early nineteenth centuries. Although many examples are available to the collector at little expense, rarely is one found complete with the metal burner. Such lamps were recognized as being safer than candles or floating-wick lamps for carrying from room to room. Their portability was no small asset when the light reached scarcely an arm's-length into the general obscurity of a room.

Most lamps made earlier than about 1830 were blown, usually with applied stems and circular feet. Occasionally the spherical font might be supported by a high, trumpet-shaped pedestal. A popular type made from about 1750 has been termed by collectors the 'wine-glass lamp', because font and stem followed the shape of contemporary wine-glasses. Seldom is this form found with an applied handle. Stemless lamps were made, and such a design might include a handle of the loop variety or a flat, horizontal extension from one side.

The glass chamber-lamp, measuring up to ten inches in height, held equal status in the home with candlesticks of brass or pewter. These lamps were made, broadly, in the form of glass candlesticks. The baluster stem was supported on a domed and folded foot, a spherical font rising from an expansive saucer-shaped sconce which caught any drops of unburned oil that trickled from the burner. A solid loop handle extended from the top of the baluster stem to a knop placed immediately above the foot, and terminated in a crimped finial. By 1735 fonts were made more capacious, with a burning time of forty hours.

Such lamps were prominently featured in glass-makers' lists during the eighteenth century. The London Evening Post, 1737, announced: 'To be sold
Shoe-buckles set with paste, of a style fashionable in the reign of George II. In the London Museum.
at the China Shop at the corner of St Dunstan's Church in Fleet Street. The best Glass Chamber-Lamps for burning oil.' At this time such lamps were costing All Souls College, Oxford, twelve shillings each. The Salford glass-house in 1760 advertised that they made such lamps in white flint-glass. In 1775, when chamber-lamps cost only five shillings each, they were advertised as suitable for 'chambers, halls, shops and weavers'.

Early in the nineteenth century a series of lamps with blown fonts were made with two, three, or four hollow branches extending from a vase-shaped body that rose directly from a heavy square foot. Each branch finished with a horizontal lip into which the burner was fitted. Sometimes such lamps were supported upon bell-shaped feet of brass.

From about 1820 the fonts of flint-glass open-flame lamps might be pattern-moulded, a decorative treatment used by blowers. The patterns are divided into three general classifications: horizontal, vertical, or diagonal ribbing; vertical flutes; diamond pattern. After 1835, when demand had greatly increased, three-piece moulds were used, the majority of fonts being cylindrical, conical, or hexagonal, the shoulders above the moulding being left plain.

These lamps were usually of the pedestal variety with two burners. In many of these the hand-pressed foot was separated from the font by a thin disc of glass or by a thicker knop ringed or ribbed. A pressed foot was usually of the stepped variety, a hollow, fluted dome beneath giving it a silvery sheen. Other examples might have a thick scalloped foot or one plainly circular. Central-wick lamps of blue glass were made at this period. The moulded font was supported on a short stem rising from a hand-pressed square base, domed and fluted beneath.

Peg lamps, four to five inches in height and with spherical fonts of about three inches in diameter, were made with short, plain, footless stems, parallel sided, applied directly to thin bowls. Such pegs were of a diameter to fit snugly into candlestick nozzles where the lamps replaced tallow or wax candles. In the same way they could be placed in lanterns instead of candles. Hanging lanterns, square, with glass or horn windows, were equipped with peg lamps and used at doors, in passages, and in similar draughty positions where a constant glimmer of light was required. In the nineteenth century a heavy collar of glass was usual between bowl and peg. A series dating from about 1820 had cylindrical or ovoid bodies blown in small moulds.
Eighteenth-century Paste Jewellery

LAUNCHED upon the exclusive world of fashion by Madame de Pompadour, and brought to perfection by the Viennese Joseph Strass, the superb paste jewellery of the eighteenth century was, nevertheless, an English development, directly dependent upon this country's triumph in the manufacture of lustrous, heavily-leded flint-glass. For a hundred years, jewellery of this pâte de verre enjoyed masterly treatment of design and craftsmanship. It earned a high reputation among the creative arts of the eighteenth century, not as a substitute for precious stones but as a recognized rival, displaying a richness of colour surpassing that of sapphires and rubies themselves, and a mellow gleam regarded as a worthy accompaniment to rose-cut or brilliant-cut diamonds.

This may surprise those familiar only with the modern paste, which is frankly a poorly finished imitation of precious stones. This modern paste is shaped by pouring the molten glass into a mould, and is finished merely by polishing. Georgian paste was cut and faceted exactly like the finest jewels and given the same rich settings.

Jewellery mounted with paste instead of precious stones delighted wealthy Egyptians 5,000 years ago, shortly after the invention of glass itself. The Phoenician trading ships introduced it to the jewellers of the western Mediterranean countries between A.D. 500 and 800. At this period, however, precious stones of all kinds possessed but little intrinsic value, for it was not until the fifteenth century that the secret of refractive glitter was discovered. Jewels were appreciated chiefly for their colour, which played a dominant decorative rôle in ecclesiastical jewellery and in the dress of the nobility. Stones were mounted only as plain slabs, their surfaces flat, slightly curved, or shaped as four-sided pyramids. No discrimination was made between precious stones and paste; contemporary inventories list both without distinction.

Only in 1476 was the discovery made that facets could be ground on table-cut gems so that they would appear to radiate light in all its starry brilliance. The well-known early form of faceting, termed rose-cutting, was
 Forms of Cutting

Viewed on plan and elevation

1. Table-cutting.  2. Rose-cutting.  3. Brilliant-cutting.

probably developed during the late Elizabethan period. In this form of cutting
the facets were restricted to the upper surface of the jewel; the lower surface
was left flat. Authorities invariably state that rose-cutting was not developed
until 1643, as a result of experiments by Dutch lapidaries employed under the patronage of Cardinal Mazarin. The Cheapside Hoard of jewels in the London Museum, however, contains many finely executed examples of rose-cutting dating from around 1600. This is particularly notable, as the London-made jewellery in which such gems appear is not of a richly exclusive type, but more of the sort worn by the merchant class, suggesting that rose-cutting was already well established.

The cutting style known as the brilliant was invented at Venice in about 1700. The very term brilliant suggests the cut gem’s glittering fire. The distinctive development in this style of cutting was the play of light which entered the jewel through the facet-rimmed table of the upper surface and was internally reflected by the cone of facet-cutting which now constituted the jewel’s lower surface. In passing through the stone the light is dispersed or separated into its component rainbow hues, just as a prism breaks up sunlight into all the colours of the spectrum. These are reflected back and dispersed through the upper facets as prismatic beams of flashing radiance.

Diagrammatic views of rose-cutting and brilliant-cutting make their distinction clear. The common brilliant cut with fifty-eight facets is shaped like two unequal cones joined base to base, with each apex cut off. The upper apex thus forms a flat, eight-sided face known as the table. Sloping away from this at an angle of about thirty-five degrees are thirty-two top facets, including eight which are large and kite-shaped, extending from the table to the girdle or rim—the maximum perimeter—of the gem. Below the girdle are twenty-four tapering pavilion facets, eight of them large and making an angle of forty-one degrees with the girdle. These meet at the apex of the lower cone, this point being ground away to form the fifty-eighth facet, called the culet.

When the earlier rose-cutting was developed, the basic material of the contemporary paste was still comparatively dull. Until about 1685 English-made paste consisted merely of natural crystal melted and purified. In 1676, however, George Ravenscroft at the Savoy Glasshouse, London, discovered that a glass of surprising brilliance could be made by charging flint-glass with oxide of lead. It was his formula that was thereupon adapted to the requirements of paste manufacture. By the reign of William III the new paste, faceted like rose-cut diamonds, was already in demand. Lustrous material and exquisitely precise cutting made this paste an extremely ornamental adornment, and its high refractive powers were further assisted by the addition of
a mirror-like foil backing. This *paillon*, now slightly discoloured by age, accounts for the delightful mellow tone which distinguishes eighteenth-century paste.

This, then, was the charming adornment which Madame de Pompadour, flattered and mimicked in every detail by Louis XV's favour-seeking courtiers, launched upon a hundred years of success among the élite. Indeed, it was the ever-increasing demand for the material—regarded more as an accessory to the costume of the day than in the form of individual artistic creations—that prompted jewellers to search for even greater brilliance. As a result, Joseph Strass, who was working in Paris, produced in 1762 a greatly improved paste. This paste, known by his name, more closely resembled genuine precious stones than any former synthetic gem. Metallic oxides were added to produce colours. Diamond, topaz, ruby, and sapphire are to be distinguished from this paste by their hardness. Paste can usually be scratched with a steel point; turquoise and opal are no harder than paste; garnet and emerald are but slightly harder.

In the early years of the eighteenth century there was a notable intermingling of precious stones and this fashionable paste. A piece of jewellery might be set with precious stones, such as diamonds, on one side and paste gems simulating rubies and sapphires on the reverse. A typical necklace of the period might combine amethysts and diamond paste, table-cut amethysts with faceted angles alternating with smaller rose-cut diamond pastes.

Early eighteenth-century brooches were often in bird-designs which combined pastes of several colours. A typical peacock might be set with emerald, topaz, and sapphire pastes. Around the middle of the century, diamond paste was often used with ruby and pale emerald pastes.

These pastes, known also as Bristol stones, had by now acquired a wide variety of uses. From the beginning of the century they were used in Masonic orders, and were applied with considerable effect to the jewel-embroidered costumes of both men and women. As separate ornaments they were particularly fashionable in combs and other hair decorations, shaped as butterflies, sprays, aigrettes, and knots or pompons. A set of jewellery, part white and part coloured paste, was known as a harlequin *suite*, and might typically comprise a necklace with pendant, a bracelet, and a chatelaine.

Pictures of the period indicate the dazzling splendour which might be achieved with jewellery. A mezzotint of Queen Charlotte published by Thomas Frye in 1762 shows her wearing four strings of pearls and a *suite*
of jewel-pieces all set with diamonds: a tiara, a girandole style of ear-ring in seven sections, a sévigné, or bow-shaped brooch—a piece with many uses at this period—and a pendant. The girandole ear-ring was followed by the clip-on type, formed of two large stones, seen, for instance, in portraits by Reynolds. Before the end of the century the clump ear-ring had arrived, consisting of a button of gold. In general design jewellery in the middle years of the century largely escaped the rococo extravagance expressed in other forms of creative art, and the typical necklace was simply mounted on black velvet ribbons which tied in a bow at the back of the neck in lieu of a clasp. Bracelets were given similar mountings.

Until about 1760 the jewels themselves were solid-set. That is to say, they were not visible from the back: hence the general application of foil or paillon to paste at this time. Shortly after the accession of George III, however, open setting for jewellery became fashionable. The light was admitted to the undersides of precious stones and diamond pastes to enhance their glitter. Coloured pastes were still given a greater intensity of hue by enclosed settings. Blue paste was backed with foil, red often with Indian ink or lamp-black.

One outstanding charm of paste-jewellery setting was the fine craftsmanship expended on the reverse, in which the metal was hammered in convex facets following the contour of the pastes. The painstaking finish, together with perfection of welding, involved much laborious skill. Settings were always exquisite, particularly so in necklets, hair-combs, shoe- and knee-buckles, frames for miniatures, watch-backs, and vast quantities of rosette-shaped buttons.

By the late 1760s the variety of paste known as strass was worn to the exclusion of all others. At this time brilliant diamond paste might still be set in company with ruby, sapphire, or emerald paste, but by 1770 yet another turn of fashion was beginning to have an effect upon the jeweller’s craft. Dancing, which previously had been primarily an outdoor pastime, was now becoming accepted as an evening pleasure, associated with the softer light of candles. Inevitably, coloured jewels, and most especially sapphires and sapphire paste, were restricted to other daytime occasions: under the mellow artificial light the dancers found diamonds and diamond paste incomparably lovelier. This accounts for the existence of so many pieces set exclusively with white paste. Craftsmanship displayed in mounting these crystal pastes often surpassed the setting of contemporary diamonds.

In daytime wear, however, fashion now particularly favoured the blue
50. Posy-holders of the cornucopia type. The second example terminates in a flower bud, each petal filled with flowers and leaves in filigree. In the two on the extreme right the containers are assembled from stock-pattern parts shaped by fly-presses. In the collection of Mr L. Graham-Wigan.

51. Typical posy-holders such as were made in Birmingham from about 1850. The specimen on the extreme left illustrates the fable of the fox and the grapes. In the collection of Mr L. Graham-Wigan.

52. Posy-holders of exceptionally delicate filigree work. The container of the central specimen is formed of roses exquisitely worked in relief. In the collection of Mr L. Graham-Wigan.
53. A group of posy-holders in gilt metal with mother-of-pearl sticks. The second and fourth are fitted with reducing mirrors, the third with pearls and turquoises. In the collection of Mr L. Graham-Wigan.

54. Tripod posy-holders in gilt metal with folding legs. The second and fifth examples of a late, more stable, design are encrusted with gems. In the collection of Mr L. Graham-Wigan.

55. Firmly pinned into its little gilt-metal cornucopia, such a posy as this would stay immaculately fresh and sweet throughout an evening's entertainment.
paste. This was set in silver and studded against a blue background. Paste as developed by Strass was sufficiently brilliant for the addition of cool colour to enhance rather than diminish its gleam, and blue paste glowed with an intensity surpassing that of many genuine sapphires. A curious and characteristic feature is the extreme thinness of blue paste, which, when mounted, achieves, nevertheless, an effect of massive weight.

Blue-paste jewellery may be classified in two groups distinguished by their mounts. Some was set like other pastes in silver or a composition of white metal. More usually it was associated with yellow metal, fixed in its setting by a soldering process. A feature of jewellery in this group is that the blue paste was generally reduced to a narrow band enclosed by larger white pastes. The blue band consisted of a row or circle of oblong sections, each cut with four facets. These might be curved or angular to follow the design. A later eighteenth-century jewellery fashion, contemporary with the vogue for blue paste, and reaching England in about 1780, was that beautiful Georgian ring, the marquise. An expansive oval or oblong shape, the bezel might be so large as to cover the first phalange of the finger, providing the jeweller with the opportunity to introduce a miniature, or later a silhouette, or more especially to set scintillating diamond pastes in rows or in a graceful floral or basket arrangement. French jewellers working in London originated a marquise ring which met with wide approval. The bezel was curved to fit the finger and set with blue paste over matt gold.

Although France set the fashion, Georgian paste differed from the more sophisticated Parisian jewellery: stones were cut larger and squarer, to resemble rock crystals rather than diamonds. Settings were therefore heavier, the finer examples being in gold, the majority in pinchbeck or other yellow composition.

Gold was often allied with copper to intensify its colour and thus the better to set off the paste. French jewellers considered silver or steel a more appropriate mount. Stones were close-set, graceful effects being achieved by combining in one ornament pastes of various sizes and colours such as emerald, sapphire, and topaz. The inner row of a shoe-buckle might consist of tiny stones very finely faceted, and the outer row of larger stones interspersed with small and medium-sized rosettes.

Provincial jewellers reached a high degree of excellence with their settings for rock-crystal paste mounted on a high boss. Such settings were uniformly chiselled in silver or steel and displayed a most attractive lace-like effect.
Cruciform pendants were made in large numbers, to hang from velvet neck-ribbons.

In contrast, nineteenth-century paste was poorly faceted, giving it a cold, glassy glitter. It was often ultra-large in size and mounted in settings which were inclined to be clumsy. It was now merely flamboyant, entirely lacking that mellow grace which distinguished the golden age of paste.
XI

Posy-holders

For centuries the fastidious had to depend on a profusion of sweet scents to repel the less delectable odours that marred their pleasures. Stuart pomanders, Georgian scent-bottles, and Victorian vinaigrettes all had their day; but none proved an enduring rival to the radiant sweetness of a nosegay of fresh flowers. Fashions and manners changed with the years, but carnations, roses, violets retained their allure. The colourful cluster of blooms worn on the corsage of the 1750s was in essence the same as the 'Victorian posy' which decorated every kind of social occasion a century later, and both presented the same problem: protection, whether of dress front or of imperatively immaculate gloves, must be provided against the flower-stems. So every Georgian lady had her porte-fleur brooch, and every Victorian maiden her porte-bouquet or bouquetier, featured in jewellers' catalogues as a flower-holder, and today recalling the vanished Victorian scene with the collector's name of posy-holder.

The Hanoverian court introduced the porte-fleur to flower-loving England. At first, a slender and plain funnel shape of metal or glass was fitted into a tiny pocket made for the purpose in the corsage. Moistened sponge packed into the base of the funnel kept the flowers fresh. The earliest of these was a slender tube of gold, finely engraved round the rim. A trade card of the late 1730s in the collection of Sir Ambrose Heal, issued by H. Pugh, goldsmith and toyman, Raquett Court, Fleet Street, London, illustrates such a toy. Ten years later the trade card of Thomas Clark, jeweller and toyman, at the Golden Head, near Arundel Street in the Strand, London, pictured a slim, tapering porte-fleur, its plain body still merely engraved around the rim, but fitted with a spring dress-clip.

As the feminine fashion for wearing sweet-scented flowers became more widespread, inexpensive holders were made of flint-glass, at first trumpet-shaped and later in the form of flat flasks. Trumpet-shaped examples in common glass were bought in quantity by florists at sixpence a pound and sold
with their nosegays and bouquets, which thus remained fresh until required.

The widespread fashion for paste jewellery, dating from the middle of the century, prompted the development of a more flamboyant variety of *porte-fleur* brooch. Later eighteenth-century portrait painters frequently depicted these ornaments, enhancing the correspondingly more elaborate flower sprays which were then the fashion.

The demand for *porte-fleur* brooches continued for more than a century: examples were displayed at the Great Exhibition of 1851. Martin Baskett & Martin of Cheltenham considered the designs of their *porte-fleur* brooches sufficiently important to necessitate their registration at the Patent Office to prevent piracy.

By the beginning of Victoria's reign, however, fashion was already setting the goldsmiths new problems: flowers might now be carried in the hand as well as worn, on formal occasions, as a colourful alternative to the fan. Once again the holder first devised was a slender creation in gold. This early *bouquetier* consisted of a simple stem or handle topped by a decorative cup. Jewels, or, more frequently, equally glittering paste, or even a delicate miniature, might be applied to the gold. Sometimes a tiny reducing mirror might be added, for viewing the surrounding company.

Soon *bouquetiers* were made of silver-gilt, their cups set with stones such as emerald and turquoise. In shape these early posy-holders might be deep trumpet funnels for containing the long stalks of a small bouquet, or shallow to take a nosegay of closely arranged flower-heads. Solid cups were frequently of cast silver-gilt or pinchbeck, their gilded surfaces either carved or chased with simple scroll patterns. Later examples of similar high quality might be lined with white enamel.

Inevitably the exclusive fashion became the general vogue. The creation of the goldsmith had to be modified to meet the needs of a large-scale commercial enterprise. It is indeed to the credit of these nineteenth-century craftsmen that, despite poorly paid, hasty manufacture and inexpensive materials, their products retained a charm and individuality that to the twentieth century makes them appear extremely collectable trifles.

At prices to suit a wide range of customers, these posy-holders might now be made of silver or silver-plate, of filigree or wirework, of pinchbeck or gilt-brass, tortoise-shell or porcelain. Some were encrusted with jewels; others, of gilded brass, were so inexpensive that florists supplied them free with their nosegays. Birmingham 'toymen' despatched such holders to the spas and
watering-places by the dozen gross. The majority were pressed from flimsy brass alloys.

In shape Victorian posy-holders may be grouped into four classes:

(a) The short cup with a pencil-thin stem.
(b) The trumpet-shaped funnel tapering to a terminal loop.
(c) The cornucopia.
(d) The variety in which the handle incorporates a folding tripod stand.

To the first class belong the majority of posy-holders in gilded metal openwork. The cups for these were assembled from small decorative pieces pressed out of thinly rolled brass or an associated alloy. The Birmingham gilt toy trade produced these parts at an unbelievably low cost. The metal was steam-rolled to the required gauge, and blanks were then cut and shaped by a hand fly-press. These parts were sold to manufacturing jewellers for assembly. First they were soldered into vertical sections, each consisting of rim, body, and collar pressings, and these sections in their turn were soldered together into the shape of the cup, the sections usually being arranged in either two or three repeats of two designs. These cups were finished by electro-gilding and, if necessary, were polished.

An idea of their low cost may be obtained from an example of Birmingham jewellery recorded in the Journal of the Royal Society of Arts for 1868. Here it stated that a 'hinged locket, in the shape of a book and with good likenesses of the Prince and Princess of Wales embossed on each and fitted with glass, was sold wholesale at one halfpenny, one penny in the shops'.

The majority of gilded open-work cups were, however, of finer quality metal and workmanship. One series was set round with large ovals of mother-of-pearl, and sometimes one or two miniature reducing mirrors. A successful series of posy-holders in metal open-work displayed Scotch pebbles in various colours, opaque and translucent. Cameos, miniature portraits, silhouettes, painted enamels, and lockets were similarly inserted into the cups of posy-holders.

When the cups were of cast metal they were finely cut, double-gilt, and burnished. Some were fretted. The double-gilt pinchbeck type of metal, known as mosaic gold and prince's metal, was popular and was often enriched with pavé turquoise and seed pearls. One attractive series of imitation gold posy-holders was decorated with marcasite and enamel; occasionally paste was introduced. Silver-gilt cups were sometimes enriched with multi-coloured enamels in floral designs.
The use of cheaper metals in place of the earlier gold necessitated the introduction of a different material for the handle which could not stain the gloves nor offend the lady's nostrils. In shape these handles were little more than slightly tapering pencils, and lent themselves to such materials as ivory, bone, hardstone, glass, coral, and enamel. Amber proved light and pleasantly warm to cold fingers; porcelain or mother-of-pearl remained refreshingly cool. The mother-of-pearl handle usually had a crooked terminal in the shape of leaves and flowers in flat silhouette and crudely engraved. Those of porcelain were decorated with tiny flower-sprays in natural colours on white reserves against grounds of blue, green, red, or yellow, enriched with gilt scrolls and stars.

A popular alternative to such designs was the tapering funnel made entirely of flint glass. Some were clear, some coloured, and many were given additional surface decoration. Flower-sprays or formal rim-borders were often engraved upon them: Bacchus & Sons, of Birmingham, issued a series diapered in gilt and hand-painted with flowers in coloured enamels; Nailsea produced others in which the clear or coloured glass was decorated with white latticino.

Posy-holders of cornucopia shape were fashionable until about 1875. In these there was no break between flower cup and handle, and the tapering curve proved a particularly satisfactory design. Among the most charming of these was the series in porcelain, imitating eighteenth-century Chelsea work and decorated with flower-sprays and busy cupids, usually enriched with gilding. The majority are unmarked, but some bear crossed swords suggestive of Dresden swords although obviously of English manufacture.

Cornucopia posy-holders in metal, like the flower cups already described, were mostly assembled from segments pressed in high relief in the form of a multitude of flowers, leaves, and insects. These were often of thin brass, silver-plated and polished. The style with a solid body might be engraved, set with semi-precious stones, or, occasionally, set with a tiny mirror or medallion. The curl of the cornucopia frequently became a loop by which the posy-holder might be held.

Filigree posy-holders, usually of cornucopia form, had a considerable vogue; the wire used was sometimes gold or silver, but more commonly tin, obtained from the Coombe Martin mines in North Devon. The favourite cornucopia design terminated in a flower-bud with each petal and sepal filled with filigree flowers and leaves, and the lower part of the body was composed of coiled milled wire.
The metal of the threads used in this filigree work was as pure as possible, so as to be entirely inelastic. When it was woven into delicate forms there had to be no risk of its springing out of place. The wires were drawn through a series of hard metal swages until they reached the requisite degree of fineness. Two strands were usually twisted together to form a single cord. In producing the sections for a posy-holder cup, a relatively heavy framework was shaped from wire containing a stiffening alloy. The threads were then fitted into place by hand, pincers being used for bending and twisting the wire. Each thread was soldered to its neighbour and to the framework with an almost invisible drop of solder. Even with the aid of a magnifying-glass it is difficult to detect the binding points. One prolific maker of filigree flower-holders was F. Allen, of Birmingham, who displayed a large selection at the Great Exhibition of 1851.

From about 1865 a factory approximation of filigree cornucopias was evolved, in which punch marks, indented lines, and milled wire-work produced a somewhat similar effect.

Though they were delightful to carry, it was difficult to put down any of the posy-holders so far described without disturbing the careful arrangement of the nosegay. In about 1840, Hilliard & Thomason, silver manufacturers, of Birmingham, devised a handle that would spring out into a tripod stand if one unscrewed a terminal knob, secured by a guard chain. This enabled the posy-holder to stand upright on a table. A competing tripod was quickly designed. This had a press operating within the handle, which terminated in three outward curving leaf-shapes. When pushed upward, the plunger divided the handle, which spread into a tripod, made stable with hidden springs.

In all varieties of posy-holder some means had to be devised to hold the bunch of flowers in place. Usually a strong pin was inserted across the mouth of the cup, through perforations drilled in the sides, thus preventing the flower bouquet from falling out. The pin might be split from the thick end, thus giving it enough spring to fit tightly into the hole, but more usually it tapered plainly to a sharp point. A few pins have been noted with flat shanks and pin-points. As they seldom screwed into position they were at best insecure and required dainty guard chains, whose minute links might be elaborately designed. Only in late examples was the thick end of the pin threaded so as to screw firmly into the cup perforation.

As an alternative to the horizontal pin, the interior of the cup might be fitted with four downward projecting spikes so that the flower-stalks could be
pushed in but not easily withdrawn. This was the registered design of Heeley & Sons, Birmingham. The same firm produced yet another form of grip, an open-work cup of four silver-gilt leaves being encircled by a movable compression ring. When thrust upwards, this ring forced the springy leaves against the flower-stems, gripping them tightly.

Many posy-holder sticks terminated in loops so that they could dangle from ribbons during the dance. The majority, however, were supplied with plain finger-rings. Such a ring was attached to the holder by a chain matching the pin-guard. Most rings were severely plain, but some were chased, and a few were split so that they would fit any finger.

In a few instances the posy-holder served also as a porte-fleur, being fitted with a long hook to attach it to the dress. Alternatively it was approved to have porte-fleur and bouquetier as a harmonizing pair. Occasionally in the late 1860s another small posy held the folds of the voluminous ball dress caught up on the hips in the fashion of the day, as crinoline gave place to bustle.

Posy-holders, catalogued as flower-holders, were included among the jewellery exhibits of the Great Exhibition. John & William Guest, Little Hampton Street, Birmingham, displayed in their array of gilt articles a selection of engraved flower-holders. Mr Balleny of Birmingham exhibited flower-holders of pinchbeck in which the stems were twisted into a loop handle; the cups were covered with vine leaves and grapes in deep relief.

In that age of ‘devices’ the posy-holder inevitably tended to become a dual-purpose or even triple-purpose trinket. Andrew Campbell, of Tottenham Court Road, London, showed at the Great Exhibition what he described as a ‘registered standard gold cornucopia designed to combine the three several uses of a dress brooch, a flower-holder, and a watch-protector’. In 1871 a silversmith whose maker’s mark was registered B.H.J. at the Birmingham Assay Office issued a combined bouquet-holder, vinaigrette, and scent-bottle in silver-gilt and enamels. The same silversmith had earlier brought out a posy-holder incorporating a method of holding the flowers securely which was a considerable advance on earlier designs. This was patented in 1863 by Adam Dixon & Josiah Pumphrey of Birmingham. The opening was fitted with a pair of slightly toothed spring clips which met together to grip the bunch of flower-stems.
69 (above). Shell cameo portrait of Sir J. E. Millais, R.A., shown in several stages of progress, from the original shell to the finished cameo. Cut by James Ronca. In the Bethnal Green Museum.

57. ‘Hebe Feeding the Eagle’ cut on a black haliotis shell. In the Bethnal Green Museum.
More than six thousand years ago the Syrians and Egyptians appreciated the naïvely charming effects that could be achieved with carved cameos. In precious and semi-precious stones, and later in glass, they developed the decorative possibilities of differently coloured layers or strata so carved that a decoration worked in a stratum of one colour stood out in low relief against a contrasting background. In early Victorian England the ancient fashion took on a new importance when the craft was developed in the particularly appropriate medium of richly coloured conch shells.

Shells first came into use as a material for cameo carving during late Tudor days, that age of exploration which opened the waters of India and the Pacific Islands to traders. It was when the wonders of the Caribbean Sea were revealed that coloured shells with the hard laminae necessary for cameo work were discovered. The first shell cameos made in the modern manner date from the late sixteenth or early seventeenth century. A few specimens of the later period survive in museums.

Production of shell cameos on a wide scale came with the industrial age, its development keeping pace with that greater distribution of wealth which brought into existence the money-spending middle-classes of Western Europe. The carving of shell cameos for popular adornment began in Italy about 1820, quickly spreading to Paris, where the art was flourishing many years before it reached England.

The reason why shell cameos were acquired by all who could afford them is not far to seek. The classical revival of the eighteenth century had awakened a keen interest in early Grecian and Roman cut gems. The paste replicas of James Tassie and the jasper-wares of Wedgwood had popularized this fashion. Equally classic in subject, fresh from the hand of the cutter, yet low in price even when encircled within a thin gold or pinchbeck mount, the shell cameo made its wearer feel in tune with the aesthetic tendency of the day. The essential beauty of these personal adornments was accepted as unassailable, for
the designs were, almost without exception, derived from originals which contemporary art critics found incomparably lovely.

The shell-cameo industry flourished until about 1870. Even today it is sufficiently important in Italy to justify the maintenance of a school for cameo-cutters at Torre del Greco, near Naples. The heyday of the craft in England came during the 1840s and 1850s, when Parian porcelain was in its prime and when sculptors were viewing the world through Hellenic spectacles. The majority of shell cameos which a discriminating collector would acquire would have been made before 1860. Examples earlier than 1830 are rare and the many cameos made between 1860 and 1870 are usually very poorly cut. Precise dating is out of the question, as shell cameos do not lend themselves to a process of listing and scientific classification, their subjects and general style being as fixed as those of the monastic paintings of Mount Athos. The hallmark and the style of the mount are the only clues by which the framed cameo may be dated.

The decline of the cameo in public esteem was brought about by this paucity of design, coupled with deterioration in craftsmanship. Cameo-cutters were not artists: they merely copied, to the minutest detail, figures, posies, and decorations designed some two thousand years earlier. The mid-century demand brought high wages to skilful cutters, most of whom spent their earnings on drink. As their skill deteriorated prices fell, and by 1860, instead of being sold singly, cameos were being quoted at so much per dozen.

A second phase in English shell cameos began during the late 1880s, sponsored by H.R.H. Princess Louise, Marchioness of Lorne. As opposed to the cameos of the former period, with their abnormally large heads, the new style was for small shell cameos in rings, brooches, ear-rings, buttons, pins, cuff-links, and so on. They were also used to embellish book-covers, photograph-albums, cabinets, and boxes.

Various types of the conch or so-called helmet shells are used for cameo-cutting, being composed of dense thick material arranged in two or three layers of different colours. The favourite variety was the red helmet or bull's mouth (*Cassis rufa*), from the Indian Ocean. Its pale golden-yellow or bright orange-red lining makes a perfect ground for the clear relief cut from the white portion of the shell. From the West Indies comes the black helmet (*Cassis tuberosa*), which offers a jet-black, brown, or claret-coloured background. Shells with a dark claret lining are found in the waters around Madagascar, and from the islands of Japan comes the horned helmet (*Cassis
cornuta). The Caribbean Sea yields the beautiful pink-green conch (Strombus gigas).

The collecting, preparing, and despatching of these shells was, and is still, a trade providing considerable revenue. From about 1821 until 1870 all the shells used in the European cameo trade were exported from England. In 1847 the Hatton Garden dealers Francati & Santa-Maria, who held a monopoly in shell-cutting, exported 100,500 pieces of shell worth £8,900 and productive of cameos valued at £40,000. A simple shell of ordinary size, when cut, produced three or four pieces suitable for cameo-cutting. The red helmet is small and consequently one-quarter the price of other shells, the most expensive being the rare black helmet, of which there might be one to ten thousand of other varieties.

In shape a conch shell resembles a human ear. The cutter divided it into six parts, the back edge going to waste, while the dome, comb, mouth, lip, and face were suitable for the cameo-worker. The shell was cut by a thin wheel revolving on a treadle spindle. Above the wheel was placed a sloping dish shaped to a point, containing emery powder. Over the dish was a small keg of water, regulated by a stop-cock in such a way that, as the water trickled down the pan, it carried particles of the emery to the wheel. The shell-cutter discarded all pieces of shell which were decayed, marked by worm, or showing a tendency to chip.

The piece in the upper portion of the dome was most valuable to the cameo-cutter because its colour showed no variations. Pieces cut from elsewhere varied slightly in tint, the colour gradually deepening towards the mouth. The comb was cut into separate knobs, which were utilized for carving heads required to stand out in bold relief. The lip was found suitable for large cameos such as umbrella handles and paper-weights. More frequently it was cut into pieces between the raised edges running at right angles to the mouth: these were then used for carving fish or birds, or other forms requiring portions cut in high relief. When the dome has been cut through, the second layer of shell appears immediately beneath. The dome has three distinct layers instead of the two found elsewhere on the shell. The outermost layer is always dark brown or red, and served for hair ornaments or a helmet on the head of a warrior; the second layer is always a chalky white, and was used for carving the figure; the third, harder layer is the brown or red ground.

The methods of carving were simple. A piece of shell approximating to the desired size and shape was selected. After being ground or filed to the required
shape, it was attached with a resinous tar-cement to the end of a short stick—the end of a broomstick usually served. Supporting the shell with this stick in his left hand, the cutter went to work with a few very delicate cutting tools and scrapers. These included four round scrapers with different points, used for cutting the figure and developing decorations; two flat scrapers for smoothing; two spit-stickers for finishing; and a fine file. Grinding wheels were used only on later crude productions.

First the subject was outlined on the white body. Then the remainder of the white portion of the shell was carefully cut away, leaving the design blocked out on its tinted background. The cutter now worked in detail on the various features of this design, the shallow nature of the relief making it necessary for him to progress equally over all parts of the surface at once.

The shell-carver’s skill was evident not only in delicacy of workmanship, but in an ability to incorporate surface irregularities with the design, which had also to be so arranged that if the blush of the background showed through any thin portions of the white, the general effect would be enhanced. Imperfections in the white surface had continually to be looked for, since the belated appearance of a worm furrow or the development of flaking might spoil a half-finished work.

When carving was complete, the ground was smoothed with pumice and water, applied with a hard, pointed stick. The raised surface was then smoothed with pumice and oil, and the entire cameo polished with a paste of rottenstone and sulphuric acid. The cameo was then ready for mounting.

Tradition has always guided the hand of the shell cameo-cutter. Copies of ancient sculpture and famous paintings, vacuous ‘ideal’ heads, allegorical figures, and family portrait-profiles were the stock motifs of shell-cameo designers. An ambitious artist would occasionally carve an entire shell with a classical group, surrounded by decorations in the same style, derived from imitations of antiquity.

The carving of shell-cameo profile-portraits was contemporary with the cutting (not painting) of silhouettes; but the results of the former were not comparable with those achieved by means of scissors, paper, and a little bronze paint. The silhouettist was primarily concerned with obtaining a vital likeness; the cameo-cutter, on the other hand, felt compelled to endow men sitters with the bearing of demigods, women with the charms of Venus or Juno. The results in these efforts were often far from admirable. Itinerant cutters of shell cameos, working from life, were travelling the country during
59-64. Shell cameos mounted as brooches. Top left: Madonna group showing unusual skill in achieving full-face effects instead of the more easily carved profiles. Top right: A more typical warrior study. Centre left: Erato, Muse of poetry and mime, accompanied by Love and Friendship. Centre right: An example showing the wealth of detail that could be obtained by skilful cutting in very low relief. Lower left: Europa and the Bull, an ambitious subject for the shell cutter. Lower right: A cameo cut in three strata. By courtesy of Cameo Corner, London.
the 1850s. This was a period when shell-cameo work was viewed with an indulgent eye: it was advertised as 'in most exquisite style of finish and perfect in contour and taste'. Prices for such perfection were reasonable. Good shell cameos cost £1 to £5 for heads, £3 and more for the finest large brooches; combs cost £10, and a complete set, consisting of necklace, ear-rings, and brooch, twenty guineas.

The quality of a shell cameo can be assessed only by the eye, and personal judgment alone can decide whether a shell is worth acquiring. Complexity of design, however, should not influence opinion concerning quality of craftsmanship, which must be of the highest. Because imaginative quality is entirely lacking, the cameo can be judged only by its technical perfection.

Some collectors place first emphasis upon the carver's ability to adjust his design to the peculiarities of the shell and make clever use of its colour. A large piece of shell seldom supplies the cutter with a perfectly plain surface. Even if the white overlay is worked down absolutely flat, the coloured ground will undoubtedly possess some curvature. Great skill, therefore, is required to carve a head so that each feature appears correctly related to the rest. A profile may be cut so that the face will seem to turn either towards the background or away from it. This will be determined by the way in which the white overlay is thinned along the face profile or at the back of the head. In either case no part should appear out of focus.

Surface treatment is important. The cameo-cutter is forced by the nature of his medium to work in extremely low relief. A sense of three-dimensional solidity has to be achieved by the merest suggestion of surface modulation and line graduation. Ground colours should be carefully noted. Pallid pinks are less valuable than rich pinks, and these in turn are less valuable than the flame colour, between red and orange. Still more uncommon are dark claret and maroon, with black the rarest of all.
Pewter Flagons and Tankards

From pewter tankards polished to a silvery sheen, Samuel Pepys and his witty, roystering companions drank at the famous Cock Alehouse in Fleet Street, the drawer dispensing the foaming liquor from a tall, two-quart flagon. Pewter lingered on in the old taverns and chop-houses long after industrial improvements in the pottery trade had enabled potters to put on the market much less costly utensils in ware that was strong and white and easy to clean.

The term flagon had for centuries been applied to any vessel containing approximately two quarts of wine: it first came to be applied to a specific style of hollow-ware when adopted for the church Communion vessel. These early ecclesiastical flagons replaced Communion cruets, in which one vessel had contained wine, the other water. Like cruets, flagons were also made in pairs. These flagons had bulbous bodies resting upon spreading tazzaféet, a type made as late as 1615. St Margaret’s Church, Westminster, possesses a pair in silver, hall-marked 1583: at Cirencester there is a pair hall-marked 1576.

Such early ecclesiastical flagons were seldom made of pewter, however. As early as 1375 a Council at Westminster had forbidden bishops to consecrate pewter. Nevertheless, Elizabethan church flagons were not always of precious metal, for an entry in the churchwarden’s accounts at Wing Church, Buckinghamshire, records a payment in 1576 ‘for a tynne wyne bottell for the Church, XViijd’. After the accession of James I, clerics were officially permitted by the twentieth Canon of 1603–4 to ‘bring to the Communion table a clean and sweet standing pot or stoup of pewter—if not of purer metal’.

Silver flagons set the fashion for pewter. Short, vertical-sided Communion flagons in silver were made during the 1560s, one of the few remaining examples being hall-marked 1572. Not until after 1590 were such flagons made sufficiently tall to contain two quarts of wine. Inventories during the next decade contain frequent entries of ‘1 paire of pewter flaggon pottes’. None of these appears to remain.
Copies were made in pewter for both ecclesiastical and lay purposes. These early pewter flagons were tall, weightily massive vessels made of thick metal. The body was slightly conical, with straight sides and no spout. To the sturdy handle was hinged a lid with a stout, upright thumb-piece. A slightly spreading moulded skirt with a beaded rim served to lift the base a little above the table. Without this protection the flat, soft, metal base of the vessel itself, tending to develop a slight bulge in the course of time, proved unstable in use. In the seventeenth century a deep, wide-spreading skirt might be fitted, such a design being specifically referred to in contemporary inventories.

The majority of pewter flagons still intact are those which were made for ecclesiastical purposes, their association with the Church having prevented their destruction in the melting-pot. The churches of Leicestershire possess some 350 examples. Among the earliest dated pewter flagons is an example preserved in Werrington Church, Northamptonshire. Inscribed with the date 1609, this measures fourteen inches in height, six and a half inches across the skirt, and four and three-quarter inches at the top. The majority of flagons were about 11 inches high: when taller they were termed 'great flagons'. The inventory taken at Chastleton House, near Moreton-in-the-Marsh, in 1632, refers to 'three great flaggons'.

The pewter flagon made earlier than about 1610 had a thick, towering thumb-piece fitting into a pair of strong hinge-lugs cast on the handle. This was the lever by which the lid was raised. A D-shaped handle extended two-thirds down the body, terminating in a flat, semi-circular finial. The bold, single-curved concave foot-rim, with a beaded edge, matched similar moulding, inverted, encircling the mouth. The low, domed lid was designed with a matching profile, and enlivened with a wide, flattened knop. By 1615 pewter flagons were tending to become light in weight, the more slender thumb-piece possessing a backward tilt.

During the reign of Charles I, flagon skirts became more expansive, the moulding containing more curves than formerly, but seldom matching the lip-moulding. This still matched the lower moulding of the bun lid typical of this period. The well-designed central knop on the lid was considerably taller than formerly. The thumb-piece tended to be wider and flatter, and might be decorated with heart-shaped piercing.

The handle now became S-shaped, extending to a point immediately above the foot-moulding and terminating in a flattened finial, usually semi-circular. From about 1640 a short intervening strut might join handle to body. At
about the same time appeared the now rare knopless flat lid, and the skirt tended to become deeper and more expansive. A hammer-head thumb-piece was not uncommon from now until 1760.

The influx of Continental craftsmen at the time of the Restoration led to increased lightness and shapeliness in pewter-ware. The flagon body might now be decorated with encircling reedings, often singly but more frequently in pairs, dividing the body-surface into a series of plain bands, alternately narrow and wide. A flat, shallow dome rose from the centre of an otherwise flat and knopless lid. By 1665 this had changed into the beefeater lid, so-called because of its resemblance to a beefeater's hat. The body might be plain, or might show decorative reeding, either encircling the lower body above the cavetto moulding of the base, or else at each end of the body. The lip rim might be finished with plain, narrow beading. Twin-ball thumb-pieces were now common, and sloped backwards. They were shaped to fit the thumb and might terminate in buds, acorns, shells, links, or pomegranates. This type of flagon, with numerous minor local variations, continued throughout the century.

The lip of the cover from about 1690 was provided with a flat frontal projection, generally with a serrated edge and always with a plain surface. The lid now became double-domed and the dolphin-tail finial is found on some S-shaped handles.

Shortly before 1720 the spouted or lipped flagon made its appearance in England; already for centuries it had been popular on the Continent. A few years elapsed before the lid was extended to cover the spout opening, this extension often having a serrated edge. Such a lid was usually surmounted by a moulded knop, frequently an acorn. At about the same time appeared the re-curved scroll handle with its decorative terminal: the S- and D-shaped handles continued in general use until pewter flagons ceased to be made. By 1750 the profile of the skirt was re-designed to form a continuous line with the tall body, now considerably tapering towards the lip. By the end of the century the flagon base was finished merely with a narrow band of moulding matching similar decoration around the lip rim. The Oxford ale-flagon, a Regency innovation, had an urn-shaped body and a double-domed lid leaving the spout uncovered. Such a flagon was fitted with a perforated grating behind the spout.

The now rare acorn-bodied York flagon, with its centrally knopped double-domed lid and its heart and leaf-spray thumb-piece, was made from about
1725 until 1760. The bodies of early examples were plainly smooth, the sides of the spouted upper body being perpendicular. By 1750 the upper body had become tapering and might be encircled with reeding, as was the outer perimeter of the spherical lower body. In late examples the spout projected from the body in a bolder curve than formerly. The S-handle was soldered to the body immediately above its most prominent bulge. A light, moulded base-rim lifted the base of the flagon above the table.

Flagons and tankards were the work of specialized hollow-ware pewterers. Until late in the eighteenth century the Pewterers' Company required all domestic pewter to be well hammered after casting to make the metal compact. Pewterers assembled flagons from six cast sections: upper body and lip, lower body and base moulding or skirt, circular base, lid, thumb-piece and hinge, and handle. The bodies of pre-Restoration flagons were usually cast in two vertical halves.

The difference between a flagon, particularly a domestic serving flagon, and a tankard is sometimes very slight. But the standardized forms of the component parts during the various periods usually display features enabling a distinction to be made at a glance. A large tankard may occasionally be mistaken for a small flagon, but these half-way pieces, seven and a half inches to eight and a half inches in height, are comparatively rare in pewter, though frequent in silver.

The word tankard does not appear to have been applied to drinking-vessels until late in the reign of Henry VIII. The Naval Accounts of Henry VII for 1485 refer to 'drynyng bolles of tree, xx; tankardes viij'. These were nine-gallon vessels of wooden staves and hooped, used for carrying water from the conduits: the carriers were called 'tankard-bearers'. Leather cups with metal lids were called tankards from about 1550. An early example of the new application of the word is found in the will, dated 1576, of Sir George Heron of Harbottle, who bequeathed '3 silver tankards' to his daughter.

Pewter tankards are not heard of until the reign of James I. An inventory of pewter taken in 1614 lists 'three tankers' and a 'tankerde potte'. Tankards always possess lids. Doctor Johnson defined tankards as 'large vessels with covers, for strong drink'. The lidless tankard was known as a mug.

The tankard lid of the James I and Charles I periods was flat, with a low, vertical-sided central lift and a slight front lip. The sides of the cylindrical body were vertical and encircled by narrow base-mouldings. The D-shaped handle with a short tail was light, with little thickness of metal at the upper
terminal, and the lower end placed low upon the body. Very few pewter tankards remain that may be correctly assigned to this period.

Little change took place in the basic features of the tankard until the accession of George I. After the Restoration the body was made slightly tapered and might be of greater diameter in proportion to the depth than at any other period. The base rim was deeper and more elaborately moulded. The beefeater lid had a flat rim three-eighths of an inch to half an inch wide. In this style of lid the vertical rise of the former period was replaced by convex moulding below the flat top. At the front the rim on such a lid was usually extended into a projection with serrated edges and a plain surface, sometimes fretted. The graceful swan-neck handle now appeared on pewter tankards, the lower terminal sometimes ending in a twin spiral, a heel-shaped slice, or an applied shield. Such handles continued until Georgian days. Reeding encircled the bodies of many tankards from about 1695 and continued in general favour throughout the collector's period until 1830, with the exception of the two decades immediately following the accession of George III.

Tankard lids were opened by pressing on thumb-pieces, known to contemporary pewterers as purchases or levers. The pre-Restoration twin-dome thumb-piece is rarely found. From 1660 to 1715 rams' horns and the fleur-de-lis in many variations were most frequently used. Late Stuart types included also beaded scrolls and love-birds beak to beak. Scroll patterns were used throughout the reigns of the first two Georges, followed by the perforated type, which held the field to the virtual exclusion of other designs.

The double-domed lid fashionable during the eighteenth century is not found on pewter tankards made earlier than about 1695. The extended serrated lip, without perforations, continued until about 1715. Then the flat rims around the lid gave way to cavetto mouldings starting direct from the outer edge of the lid. This style of lid was never superseded as a standard pattern.

At about the same time the swan-neck handle began to give place to a more massive-looking handle displaying more flowing curves in an S outline. These handles were cast hollow. As in earlier work, the upper end of the handle was usually sliced obliquely across its section and this area soldered to the body; in other cases the handle was provided with a lug which might extend halfway down the body of the tankard. The re-curved scroll handle appeared on some tankards from about 1730, with a short strut between either or both terminals and the body.
66-67. Pewter jug, the flat lid engraved with the date 1677: struck with the maker's mark P.B.

In the Victoria and Albert Museum. Right: Full-skirted and crested pewter flagon with double-domed lid with turned finial, and double-curved handle.
68. Section of the surface of a London-made pewter plate, showing the marks produced by hammering the interior rise to give rigidity and compactness to the metal. *In the collection of the Rt Hon. Earl Beauchamp.*

69. (below). Broad-rimmed pewter plate, edge decorated with thin oval beading and single reeding, a typical shape of the first half of the eighteenth century. *In the collection of the Rt Hon. Earl Beauchamp.*
A tankard with a swelling bell- or tulip-shaped body raised on a narrow moulded foot and with a double-domed lid was a West Country design, contemporary with the cylindrical tankard from about 1720 to 1790. This had a period of high popularity between 1760 and 1780, when few tankards with vertical bodies were made. The tulip tankard was made again from about 1810, this series having vertical rims, earlier examples being beaded.

Tankard bodies from about 1660 might be decorated, but the majority were left plain, sometimes with the addition of encircling reeding applied during manufacture. At first large floral devices in broken or wavy line-work were produced by what was then known as wriggled or jogged work. This was carried out by tapping a rough chisel and rocking it from side to side. Later decorations were done with a graver or a tracer: these engravings are sometimes of a considerably later date than the tankard itself. The graver removed a fragment of the soft metal at each cut; the tracer removed no metal, as the tool was held vertically and struck with a hammer, displacing the metal and forming a furrow. Deep engraving is seldom found, as this would weaken the pewter. Tankard bodies might be engraved with portraits, coats of arms and cyphers, symbolic Stuart designs, and lions, birds, foliage, and flowers.

Pewter engravers journeyed from pewterer to pewterer, carrying out decoration on the premises with their own tools. Engravers of silver, whose advertisements and trade cards indicate that they decorated pewter too, called this branch of their art 'scratching'.

The majority of early pewter tankards are unmarked: some were struck with the makers' initials. When touch-marks are present they are usually found on the inside base of the tankard. So-called hall-marks were struck either across the outer surface of the lid or on the body near the lip and handle junction.
XIV

Pewter Plates and Dishes

The flawless texture and mellow silvery sheen of English-made pewter had long been admired and collected on the Continent when Pope Gregory XI in 1382 directed that the chargers, platters, dishes, and trenchers used in the Vatican must be of English manufacture. Considerable further quantities were ordered, and in 1387 the Papal Nuncio in London could think of no more acceptable present to send his master than a barrel full of London pewter engraved with the Papal arms.

London flatware was distinguished by being hammered or planished, a costly process compared with the production of flatware which was merely cast and its surface cleaned by the sadware turner. These London pewterers shaped their ware on a wooden form, using short-handed hammers with bright smooth panes, or hitting surfaces, of various contours. The interior rise or bouge of the plate was then beaten on an anvil and swage. The hammer marks left a series of concentric rings, which were cleared from the upper surface by turning in the lathe, but remain visible on the underside. This process was followed by all-over burnishing, a lathe operation carried out with bloodstones or agates of various shapes set in long-handled tools.

Hammering gave rigidity and compactness to the alloy: consequently the ware was less liable to be distorted than ordinary flat pewter and its wearing qualities were enhanced. Such pewter emits a bell-like ring when struck, very different from the dull tone of ordinary cast sadware, finished merely by lathe-turning and burnishing.

Hammered pewter was noted by Harrison in his Description of England, 1580: 'In some places beyond the sea a garnish of good flat pewter of an ordinary making is esteemed almost as precious as the like manner of vessels made of fine silver'. He added that foreign pewterers were not nearly so skilled as their English confrères. He also noted that in his day the depressions in plates were beginning to be made considerably deeper, making them 'more convenient for sauce, broth, and keeping the meat warm'. The finest metal
was used for hammered flatware, the Pewterers' Company's formula being: tin, 100; antimony, 8; bismuth, 2; copper, 2.

Garnishes of pewter were the pride of the old-time kitchen, where they were displayed on tiers of shelves with their backs facing outward. The custom was not only to wash and rub the pewter vigorously after each meal, but also to give it a monthly scrubbing with oil and rotten-stone, or sand applied with rushes. A garnish of pewter flatware was defined by Harrison as 'twelve chargers, twelve dishes, twelve plates and those are either of silver fashion, or else with broad and narrow brims, which is now valued at sevenpence [per pound], or, peradventure eightpence'.

The Pewterers' Company in the mid-fifteenth century grouped flatware into four types and standardized their weights: chargers were made in four sizes, 7, 5, 3½, 2½ lb.; platters, 2½, 2½, 2, 1½ lb.; dishes, 1½, 1¼, 1, ½, ½ lb.; saucers, ½, ⅛, ½, ⅛ lb. A century later these weights were more or less ignored and flatware sold under more fashionable designations. Numerous inventories taken in the northern counties of England during Elizabethan days specify pewter articles by name, giving both quantity and weight, thus enabling the weight of individual pieces to be calculated.

The inventory of Thomas Hall, Durham, taken in 1586, specifies a wide range of flatware in pewter: great chargers, 5¾ lb.; chargers, 4¾ lb.; lesser chargers, 3½ lb.; great platters, 3½ lb.; platters, 3 lb.; lesser platters, 2½ lb.; doublers, 3 lb.; lesser doublers, 2½ lb. Special-purpose flatware was also itemized: custard plates, 1¾ lb.; spice plates, 1½ lb.; pudding dishes, 1¼ lb.; pie and pasty plates, 1 lb.; egg dishes, 1 lb.; banquet dishes, 14 oz.; large saucers, 14 oz.; lesser saucers, ¼ lb.; plate trenchers, 14 oz. to 9 oz. Such pieces were distinguished by shape, depth, and rim width, following fashionable styles in silver. Finished pewter at this time was worth about sevenpence a pound.

The early pewter plates which replaced the shallow platters were broad-rimmed with plain edges: existing specimens measure from eight to ten inches in diameter. Special-purpose plates were narrow-rimmed. Chargers for accommodating large joints or the traditional boar's head had rims commensurate with their size, the rim of a twenty-six-inch diameter charger usually approximating four inches in width. The diameter of a dinner plate varied with the whim of the day. In 1661 the Coopers' Company exchanged their pewter plates for a similar number 'of a larger and more fashionable size'.

Pewterers' moulds were weighty and expensive: complete sets were stored
at Pewterers’ Hall and might be borrowed by ‘qualified masters of the craft’. Flatware from these moulds is to be recognized by a seldom-changed series of decorated rims. Thus the collector may now date most plates and dishes within wide but well-defined limits. Other rim patterns are found taken from moulds which were the joint property of small groups of pewterers whose combined businesses were large enough to keep such sets of moulds in continual use.

The rim of a piece of flatware from about 1575 might be strengthened with a beaded edge, usually oval in section. The bouge was deeper and less abrupt in its fall, a feature retained throughout the rest of the pewter period. From early in the seventeenth century until 1660 the rim beading was circular in section. The rim was also encircled with two closely placed chased lines, the space between them being slightly concave. These and most earlier plates were horizontally rimmed: a few existing examples have a slight rise from the top of the bouge.

Between the Restoration and early in Queen Anne’s reign three standard types of decoration encircled the rims of pewter plates. From 1660 to 1695 the width of the rim might be half that of the former period and its edge strengthened with beading in oval section. This style of rim rises slightly upward from a circle cut deeply into the rim-bouge junction, the upper surface shaped in the form of a simple moulding. A second type, its use extending until after 1705, has a wide horizontal rim bordered with triple reeding and a beaded edge oval in section. Contemporary with this was a rim of similar width decorated with simple moulding twice as broad as the triple reeding, and a beaded edge circular in section.

A broad rim with single reeding and a wide, thin oval beaded edge generally belongs to the first half of the eighteenth century. With the decline of the pewterer’s craft from the 1740s plain rims became usual. Only a small percentage of these appear to have been hammered in the style of earlier examples.

Facing competition from the potters, pewterers now began to supply a series of more decorative dishes and plates than the plainly oval and circular. These included octagonal plates, at first with plain rims, later with borders double or treble reeded, gadrooned, or showing a combination of beading and reeding.

Some of these closely resemble silver salvers of the Charles II period nearly a hundred years before. Wavy-edged plates in pewter copying contemporary shapes in silver were made: five-lobed with double-reeded rim; five-lobed,
70. A late seventeenth-century pewter marriage charger, inscribed BE WISE FEARE GOD LET NOT A MOMENT'S PLEASURE DEPRIVE THY SOUL OF HEAVEN'S IMMORTALL TREASURE. In the collection of the Rt Hon. Earl Beauchamp.

71. A group of late seventeenth-century pewter: stemmed tazza; charger with Charles II type of beading to rim; doubler; and hot dish stand. In the collection of the Rt Hon. Earl Beauchamp.
72. Brass warming-pans with wrought-iron handles decorated (left) with the arms of the Cloth-workers' Company, circa 1608. (centre) with the arms of King James I, circa 1609. (right) with stamped emgeran pan and lid, polished hardwood handle; late seventeenth-century. Copper warming-pan (right) with plain raised lid and wrought-iron handle. In the London Museum.
reeded, gadrooned and plain; five-lobed with scroll and shell decoration; eight-lobed, plain, single, and double reeded.

Thin squares or discs of pewter known as trenchers were used on the English table for more than a thousand years. When platters and plates eventually became part of the table equipment, the trencher was laid additionally for the individual cutting of food, to save the plates from becoming scarred with a multiplicity of knife marks. During the fourteenth century, plate trenchers came into use and are consistently noted in domestic inventories for the next three centuries. Plate trenchers were square or slightly rectangular, with a low rim in the form of a wide inverted U.

The platter was an early development of the trencher, with a shallow depression for solid foods. When in mid-Elizabethan days the bouge was deepened, the newly fashionable table vessel was termed plate, after its prototype in silver. The name platter lingered in the provinces, however, until the nineteenth century. Doublers, which are mentioned so frequently in inventories from the fourteenth to the seventeenth century, are plates with exceptionally deep depressions, rather deeper than Victorian soup plates. They are flat-bottomed, with wide, thickly beaded rims, slightly uprising. Doublers were used for serving the many semi-liquid foods of the period eaten with a spoon.

Dessert plates, known until about 1820 as banqueting-dishes and weighing less than one pound, appear to have been widely used. In large establishments the banquet was a course of sweetmeats, fruit, and wine served either as a separate meal or a continuation of the principal meal, but in the latter case usually in a different room. As late as 1800, Southey noted the drawing-room 'as the common place for banqueting or of eating the dessert'. In the northern counties the repast was referred to as a 'fruit banquet' and was accompanied by wine if a visitor were present. Venner in 1620 noted the prevalence of 'banquets between meals, when the stomach is empty'.

Banqueting-dishes of pewter were about six inches in diameter and cast. A concave rim rising from a flat base terminated in a scalloped edge and its inner surface was enriched with simple designs in low relief. The base might be either plain or decorated with punched work. After about 1600 a pair of thin ring-handles might be soldered diametrically opposite to each other. In the second half of the century flat handles, or ears with surface decoration, were attached. Banqueting-dishes of the eighteenth century were shallower and usually resembled small waiters, but few appear to have been made in pewter.

Spice plates of pewter are noted frequently in inventories, north and south
country alike, from early in the fourteenth century, their weight varying from 1½ lb. to ½ lb. Earl Derby's expenses for 1391 record purchases of 'spype-plates peutre'. Towards the end of the sixteenth century they are often inventoried as 'spice treys'. The number in a household seldom exceeded four. No contemporary record of their shape in pewter has been noted, but such trays in silver were raised above the table on three small feet.

Spice at this period was defined as 'raisins, currants, plums, figs, and such like fruit', and in 1828 Marshall defined spices of that period as 'sweetmeats of any kind', and 'the spice is served separately on a spice-plate'. These spices must not be confused with the pungent spices used for flavouring. These were usually tabled in a box, sometimes having several compartments and equipped with a small spoon. Such spices accompanied some wines until about a century ago.

Saucers of pewter were made in tens of thousands until the mid-eighteenth century, yet few are found in collections. So much food had to be dried or salted to preserve it in days gone by, and strong flavours and scents were so customary, that sauces were essential to add piquancy. The Yeoman of the Saucery was an important official in a large establishment. The sauces were tabled in deep, rimless dishes about six inches in diameter, inventories showing weights to range from ½ lb. to 1 lb. Bailey's Dictionary of 1728 defined a saucer as 'a little Dish to hold sauce'.

Dishes known as mazarines were fashionable for more than a century from 1660. Andrew Marvell in 1663 remarked: 'What Ragouts had here been for you to have furnished the Mazarines on your table!' Ragouts of the period consisted of diced meats stewed with vegetables and highly seasoned. Kersey's Dictionary of 1706 defines mazarines as 'a kind of little Dishes to be set in the middle of a large Dish for the setting out of Ragoo or Fricassies'. In the same year the Northwick House inventory listed '2 new mazarines' among the pewter. The large dish or charger on which the mazarines were placed was circular, wide-brimmed, and might be decorated with an enamelled or copper boss in the centre: this might be engraved with a coat of arms or crest. The outer edge might be strengthened with a single reed encircling punched decoration, small intersecting circles being frequent. Sometimes recorded as 'treys', these chargers were also used to table the containers of hot confections, such as custard coffins.

Heavy oval trays, inventoried as 'pewter voiders treys' and as 'voiders', were used in large establishments for the reception of soiled dishes, left-overs,
and scraps taken from the table during a meal. Leyland in 1466 recorded that 'the Sewer [server] geyeth a voyder to the Carver, and he doth voyde into it the Trenchers that lyeth under the knyve's poynet...and so cleanseth the table clean'. Sir William Fairfax's pair of pewter voiders were valued at ten shillings in 1590, their weight being 5½ lb. each. In 1739, R. Ball described pewter voiders as being used to carry away greasy plates during a meal. By the end of the Georgian era the voider tray had become obsolete, being replaced by a staved vessel hooped with brass and polished within and without.

As the fashion for giving wedding-knives declined, it became customary during the Stuart and Hanoverian régimes for bride and bridegroom to receive a pair of marriage plates, in silver or pewter according to their station in life. Early pewter marriage plates might be decorated with line engraving or wriggled work, the wide rims being inscribed with appropriate posies or mottoes, the flat centres displaying pictorial or figure scenes. Pairs of marriage plates appear to have been bought from the pewterer already decorated, for the initials of husband and wife, with the date of their marriage, were frequently added in a different hand from other inscriptions.

'Merry Man' plates were issued early in the reign of George III. These are sets of six ordinary plates with triple-reeded edges, each bearing the same touch-mark and each inscribed on the flat with one from a series of numbered consecutive sentences. Thus the complete set reads: '1. What is a Merry Man?'; '2. Let him do what he can'; '3. To entertain his Guests'; '4. With wine and Merry Jests'; '5. But if his wife does frown'; '6. All merriment goes down'. Such sets have become more common in recent years as half-dozens of old plates bearing matching touch-marks have been engraved, the deception being virtually impossible to detect. Suspicion might be aroused by the presence of the word 'merrie'.

The Northwick House inventory of 1705 contains the following interesting entry: '2 pewter rings for a table, one pewter stand for a dish and plates'. The pewter rings have their counterparts in hall-marked silver, often known as potato rings, being spool-shaped, plain surfaced, and about nine inches in diameter by three inches in height.

In addition to the personal mark, or 'touch', that the Pewtersers' Company required to be struck upon all pewter, flatware might be engraved upon the rim with the owner's arms, crest, or cypher, or inscribed beneath the rim with the owner's name, and with the date when the pewter was bought. Unlike silver, there is no legal ban on the forging of old-time touch-marks.
It should be remembered that old shapes have been copied in an alloy made from the old formula for fine pewter. Early marks may be applied after a piece has left the factory, and it may be scratched, dented, and otherwise antiqued by burying or with acids. The writer has noted pewter in a galvanizing shop to which it had been taken for suitable immersion in the 'pickle'.
XV

Warming-pans

The ancient office of Yeoman Bed Goer, in existence to this day, was no sinecure when both the safety and the comfort of the monarch depended upon it. It was required of him that he ‘tumble up and down the King’s bed for the search thereof’ and to warm it with his own body. It might be unusual to find, as did Henry IV’s Bed Goer in 1401, that the mattress had been filled with ‘braunches mad so scharp’ that they might have killed the King, but the liking for warmed sheets was not restricted to royalty. Until the end of the fourteenth century it was customary for a page or apprentice to warm his master’s bed by lying in it until the latter was ready to retire.

The earliest record of an effort to improve on this ancient custom is to be found in the Chronicle of Froissart (1337–1410), where reference is made to an old man’s bed being set alight while being warmed with hot air. Through succeeding years, until early in the nineteenth century, it continued to be the custom to temper the chill of linen bed-sheets with a pan of hot embers; yet today many possessors of old warming-pans are entirely ignorant of their proper function. Blazing or smoking coals were never placed in the pan: charcoal or clear wood-embers from the fire supplied the heat. The metal pan might be wrapped in a piece of fabric to avoid the ever-present danger of scorching the sheets. A servant would open the bedclothes and insert the pan at the foot of the bed, then move it gently between the sheets until they were warmed.

The earliest container for the embers was a covered metal pan set inside a cage of oak or iron; a design which continued until early Georgian days. Early in the fifteenth century, however, a long handle, of wood, brass, or wrought iron, had been attached to the pan, and eventually the cage was dispensed with. By 1450 brass warming-pans were considered essential items in the equipment of noble households.

The warming-pan used in the bed of Louis XI in 1481 was of brass. The first recorded owner of a silver warming-pan was Babou de la Boudaisière,
Treasurer of France. This was about 1490, and thereafter all royal warming- 
pans were of silver, their black ebony or wooden handles ‘grooved like a 
column’. The silver warming-pan lid might be decorated *en suite* with an 
accompanying rose-water ewer and basin.

Warming-pans of silver were manufactured in England from early in the 
sixteenth century, being used in royal and noble bed-chambers until the middle 
of George III’s reign. Few examples remain and contemporary references are 
sparse indeed. The Earl of Northampton’s warming-pan, weighed in 1614, 
contained seventy-one ounces of silver. An existing example made by Charles 
Petit in 1661 has a six-inch cast-silver socket into which is fitted a handle of 
ebony three feet long. One leaf of the hinge is attached to the upper side of 
the socket, the other to the interior of the lid. The centre of the lid is engraved 
with a coat of arms in a shallow depression, the surrounding area being saw-
cut into an elaborate openwork design.

On New Year’s Day, 1669, Samuel Pepys was presented by Captain Beck- 
ford with ‘a noble silver warming-pan’. Among the *Exchequer Papers* are 
preserved the expenses of Nell Gwynn for the year 1674, in which reference is 
made to the cleaning and burnishing of a silver warming-pan. This very 
warming-pan still exists as one of the few remaining relics of this notable 
woman. The accounts of Haddon Hall for 1690 record a payment for a 
sixty-five-ounce silver warming-pan ‘and even more money for engraving 
the arms’.

A silver warming-pan made in 1690 by T. Izod, of London, is in the collect- 
ion of Earl Beauchamp. It was made for Sarah Jennings, later Duchess of 
Marlborough, and is engraved with her crest. Of standard shape and size, the 
cover is divided into twelve sections, with a raised rose centre, all finely 
pierced. This elaborately worked lid is protected from injury by a stout cross 
of silver wire, clearing the cover by three-eighths of an inch. The thick handle, 
of heavy hardwood, is turned with a deep spiral twist and black japanned. A 
finely pierced example made in London by Seth Lofthouse in 1715, and now in 
the collection of Her Majesty the Queen, belonged to Queen Caroline, wife 
of George II, and was later in the possession of Queen Charlotte.

Warming-pans of brass were probably made in England no earlier than 
about 1585, although considerable numbers were imported, for references to 
their use are frequent throughout the Elizabethan period. The absence of 
home-produced brass ingots resulted in a large, unsatisfied market for finished 
brass goods such as kettles, cooking-pans, and warming-pans. Aware of this,
74 (left). A brass warming-pan with lid pierced in the Continental manner: the wrought-iron turned handle is enriched with brass mountings, circa 1670. *In the Victoria and Albert Museum*. 75 (centre). Silver warming-pan with ebony handle made by Seth Lofthouse, London, 1713. Formerly in the possession of Queen Caroline and Queen Charlotte. *By gracious permission of H.M. the Queen*. 76 (right). Copper warming-pan made of rolled metal, with cast brass socket and beech handle, circa 1730. *In the collection of Mrs Anderw McFarlane.*
77. Brass candlesticks. The central example is English-made of the early sixteenth century, and is a development of the earlier Flemish styles shown left and right, In the Victoria and Albert Museum.

78 (left). Elizabethan brass candlestick with a trumpet foot and flat drip-pan, and horizontally corrugated stem. In the Victoria and Albert Museum. 79 (centre). A three-piece adjustable candlestick, the upper section cast solid and drilled, the drip-pan shaped from battery brass, and the lower section cast solid and turned. Early seventeenth century. In the Victoria and Albert Museum. 80 (right). A cast and turned gunmetal candlestick of the late seventeenth century. In the Victoria and Albert Museum.
William Humfrey, Assay Master of the Mint, applied for and obtained in 1565 the sole privilege of introducing 'battery works' such as had long been operating successfully in Germany.

By means of this mechanism, operated by water-wheels, ore could be crushed and ingots of brass beaten into plates with hammers of various weights, some as heavy as five hundred pounds. The battery process included also the use of small hammers suitable for raising hollow-ware, such as the ember containers of warming-pans. The manufacture of brass and the raising of brass hollow-ware became the monopoly of the Society of the Mineral and Battery Works, who were empowered to impress workmen and horses. The Society erected battery plants, which were operating in the production of copper ingots and copper sheets by about 1570.

English brass was not made in commercial quantities until 1588, six years after John Brode and his partners at Isleworth in Middlesex were licensed by the Society to use the battery process in the production and manufacture of brass. A second works was established at Rotherhithe in 1596. Sir John Pettus has recorded that early in the following century an extensive brass-works was also operating in Nottinghamshire, giving daily employment to eight thousand people. The brass monopoly continued until 1690, with a break during the Commonwealth. During the entire period, the Society of the Mineral and Battery Works used every endeavour to restrict the import of competing material.

The quality of English brass was poor throughout the monopoly period: brass-workers disliked its hard, scurvy nature, preferring the more costly foreign metal as being of more attractive colour and less expensive to work. Brass-making required great skill owing to inconsistency in the quality of the raw materials. Until about 1725 English brass always had the reputation of being inferior to the foreign metal.

Warming-pan lids were hand-raised from thin brass sheets usually obtained from Holland; the heavy ember-pans were made from English brass by the battery process. Ingots of metal weighing about seventy pounds were hammered into sheets about one-eighth of an inch thick. These were cut into discs with shears operated by water-power. Four or five discs would be hammered together, and then, with the battery hammers, 'raised up round into hollow shapes, as women make pies'. Pans raised by the battery method displayed hammer marks on the surface. The great art in this process consisted in using hammers of the correct weight and regulating the heat of the plates before
carrying them to the swage. The beater might use as many as twenty different hammers in raising the ember container of a warming-pan.

The hammer marks were later removed in the lathe; the ware, then known as ‘metal prepared’, was sold to domestic workers and small masters, who completed the finished article. Large numbers of brass-finishers were employed by the Society of the Mineral and Battery Works on a factory basis. The market for finished goods was mainly in London. Although the battery process continued in use until as late as 1790, it was usual from about 1730 for brass and copper intended for the hollow-ware trade to be compressed into sheets between cylindrical rollers.

The growing Elizabethan custom of using warming-pan was clearly manifested in 1582, when the Queen’s New Year gifts included a ‘small warming pan of golde, garnished with small diamonds and rubies, with two ragged perles pendant’, from Lord and Lady Hunsdon. The extensive inventory of Sir Thomas Ramsey, a former Lord Mayor of London, reveals that in 1590 his household possessed but one ‘warminge panne’, valued at eleven shillings, but in the seventeenth century they had become part of the normal equipment of every well-found household. The journal of the Reverend Silas More records that in 1656 he ‘bought a warming pan from Johnson at the shop in Grace Church Street, Brasier, for seven shillings and six pence’.

The Elizabethan brass warming-pan was provided with a handle of iron hand-wrought from the flat and incorporating elaborate scrolls in its three-foot length. The intention of such a design may have been to keep the weighty pan from twisting in the hands while being carried to the bedchamber. Warming-pan of the James I period were slightly lighter in weight and consequently less expensive. Their plain, tapering handles of wrought iron a quarter of an inch thick varied from twenty-seven to thirty inches long and terminated in loop finials for hanging from a hook when not in use. From about 1625 the handle might be of solid brass, terminating in a loose shackle of the same metal. The stem was decorated at both ends and in the centre with turned baluster and knop ornamentation.

During the second half of the seventeenth century, handles of brass continued to be popular, but there was also considerable use of a handle design consisting of two fifteen-inch lengths of square or round iron fitted into three cast brass mountings of baluster and knop formation. The finial was fitted with a brass shackle.

After the Restoration, English warming-pan might be given handles of
oak or other hardwood finely carved with flutes and terminating in large decorative knobs. At first such handles were finished merely with polishing; towards the end of the century it became customary to cut the cost by making handles of cheaper but more perishable woods disguised with black japan. Few genuine brass warming-pans of this period with wood handles are known: reproductions are numerous.

In the wrought-iron handle design the end of the handle was expanded into a flat shoulder about two inches wide. The flat ring of iron about three-quarters of an inch wide which supported the ember pan was finished with a projecting tongue of metal so that it could be welded to the handle shoulder. Upon this ring rested the wide rim of the deep, vertical-sided ember pan, which was firmly attached to it by four to seven brass, copper, or iron rivets. One leaf of a five-jointed brass hinge was riveted to the flat shoulder of the handle, the other leaf to the interior of the warming-pan lid. In a similar way the pan end of the brass or brass-mounted handle was shaped into a wide, flat-shouldered section about three-quarters of an inch thick. This was channelled on the upper side to contain the flat tongue of the ember pan-ring, which was attached by means of two thick rivets. Over the tongue, and fixed with three thinner rivets, lay the leaf of a five-jointed hinge made of battery brass. The other leaf of the hinge was riveted to the underside of the lid.

Straight, almost vertical sides were standard for the ember pan of brass warming-pans until about 1720. The pan was approximately three and a half inches deep and eight and a half inches in diameter, with the addition of the flat one-inch rim already mentioned, which contained the rivets securing the pan to the iron ring. In later examples the outer edge of this rim might be bent downwards to conceal the iron ring. Tool-marks resulting from smoothing and polishing the metal in a lathe are sometimes visible on ember pans. Very frequently, however, generations of nightly heating and hard wear have oxidized both exterior and interior surfaces of the metal, which has scaled and obliterated such marks. The furrows made by these early tools are less regularly spaced than those found on similar warming-pans recently made with intent to deceive collectors.

Thinner, softer brass of finer colour, imported from the Continent, was used for the lid of the brass warming-pan. The lid was about a foot in diameter, hinged to the handle, and swinging loosely over the ember pan. The rim of the lid was strengthened by folding the brass over a circle of iron wire. Lids were beaten to a concave form on a pitch block with wooden mallets of variously
shaped faces, and were deeply concave during the second half of the seventeenth century. Features in slight relief—an animal, perhaps, or the shield of a coat of arms—which might ornament the convex surface of the lid, were raised at the same time.

Punched decorations enlivened the lids of some brass warming-pans and are often erroneously referred to as engraving. These were produced mainly with a series of point, circle, and line punches, used in combinations enabling any number of simple patterns to be designed. Careful comparison of these punch-marks on existing early Stuart warming-pans shows that there was little variation in the punches used.

Stock designs for which repeats would be required were drawn on parchment and the outlines picked out in closely spaced pin-holes. The parchment was laid upon the convex surface of the unpolished lid and sprinkled with fine chalk, which was rubbed through the pinholes, leaving an outline pattern to guide the brazier’s hammer and punches.

Throughout the seventeenth century the brass warming-pan lid might be ornamented with a centrally placed coat of arms encircled by a ring of regularly spaced holes one-eighth of an inch or three-sixteenths of an inch in diameter and about a quarter of an inch apart. The remaining lid space contained a motto enclosed within a double ring of small circles and semi-circles. Sometimes a second circle of drilled holes surrounded the entire design.

Royal heraldry was always popular, and warming-pans so decorated were frequently inscribed with the date. Examples are known dated 1604 and 1614. A warming-pan from Goodrich Court now in the British Museum is inscribed with the legend God Save Our King James 1620. A similar example in the Royal Albert Memorial Museum, Exeter, is dated 1622. The lion and unicorn supporters were included in the design until the last few months of James I’s reign, but were omitted in such work from 1624 and throughout the reign of Charles I. A rare example of a James I lid with the coat of arms lacking supporters is illustrated in Plate 72.

Other warming-pans were patterned with a coronet and the Prince of Wales’s Feathers placed between the flags of England and Scotland and encircled by the motto God Save Our Prince Charles and the date. Cromwellian warming-pans might be decorated with the arms of the Commonwealth copied from the coinage, and the motto England’s State: Armes. With the Restoration the supporters were reinstated on royal coats of arms, motto and dating continuing as before. Warming-pans of the Charles II period might
be ornamented with the famous Boscobel oak, its branches supporting the three crowns of England, Scotland, and Ireland, with the motto THE ROYALL OAKE.

Many seventeenth-century warming-pans were decorated to the order of purchasers, such as those bearing the arms of noblemen in whose establishments they were used. The Victoria and Albert Museum has an example bearing the arms of Devereux—a coroneted stag collared and chained—with the date 1630 and the words THE EARLE OF ESSEX HIS ARMES. The body of the stag, its head, and the ground upon which it stands are raised from the underside of the lid. Other pans were made and decorated for the Livery Companies, such as the London Museum example bearing the arms of the Clothworkers’ Company and inscribed MY TRUST IN GOD ALONE.

Portraits of celebrities, with appropriate mottoes, enhanced brass warming-pans from about 1630, no tools other than the brazier’s punches being used. Notable churchmen, politicians, and generals associated with the Civil War were commemorated in this way. In the British Museum is a brass warming-pan bearing a figure of the Charles I period carrying a sabre and target, inscribed WHO BVRND YE NOBODIE 1635. Other examples have been recorded in which the inscription read WHO BVRNED THE BED NOBODIE—indication enough of the damage many a bed must have suffered through the servants’ careless manipulation of the warming-pan. Texts, moral precepts, and crudely rhymed mottoes were inscribed on many brass warming-pans, as on other contemporary household goods. The Welsh Levite Tossed in a Blanket, dated 1691, has a reference to the fact that ‘our garters, bellows and warming pans wore godly mottoes’.

A number of brass-workers from Holland followed closely in the wake of Charles II in 1660 and established themselves in London, bringing with them technical and artistic improvements throughout the brass trade. Warming-pan lids became more deeply concave than formerly, and might now be elaborately pierced with fret-cut designs.

Typical of the fine warming-pan lids in the Continental manner favoured by those who could not afford the luxury of silver is the example illustrated in Plate 74. This pictures a woman with a fan and a man carrying a staff. Between them, rising from a vase, are conventional carnations, tulips, and roses; beneath strut a pair of peacocks. Less elaborate lids might be fret-cut with designs of flowers and scrolling leaves emerging from classical vases.

No copper warming-pan of English manufacture has been discovered
which could reasonably be placed within the seventeenth century. The earliest record of such a pan in Europe has been found in the 1690 inventory of Henri of Bethune, Archbishop of Bordeaux. The monopoly of the Society of the Mineral and Battery Works came to an end in 1689, when an Act of Parliament made it possible for anyone to work the copper deposits of Great Britain. The immediate result was the disclosure of fresh sources of the metal in several parts of the country. A few months later John Duckett and Gabriel Wayne invented a furnace with which a purer copper could be produced at less cost than the former quality. By 1697 the yearly output had reached 160 tons, which sold at one shilling and sevenpence a pound. This softer metal extended considerably the scope for battery goods, and by 1720 the output exceeded 800 tons a year.

George Moor in 1725 patented a ‘new method of refining copper by air and blast with proper furnaces and sea coals, whereby the copper is purified and refined at one operation, with less charge for fire and loss of copper’. This copper was of good colour, soft, and easy to roll. The weight of metal used in hollow-ware could be reduced and labour lessened. This resulted in the modification of warming-pan design and extension of the market. The ember pan, still straight-sided, was made of copper only one-sixteenth of an inch thick, and the new lid resembled a beefeater’s hat with a short sloping rim fitting snugly over the beaded rim of the ember pan. It had been discovered, rather belatedly, that ill-fitting pierced lids wasted heat. Warming-pans made to the new design were less difficult to manipulate, kept warm much longer, and, wrapped in fabric, could remain in the beds until the arrival of the occupants. Lids were either free of ornament or somewhat sparsely engraved, brass rings being fitted to facilitate opening. Hinges were narrow and often three-jointed, one leaf being riveted inside the ember pan, the other to the interior of the cover. Brazed or riveted to the ember pan was a strong, tapering socket of cast brass into which was fitted a polished handle of wood, usually of beech or ash.

From 1770 warming-pans were stamped, a process patented in the previous year by Richard Ford, of Birmingham. For the first time a press and die were used to force sheet-copper into the required shapes for making warming-pans, saucepans, basins, plate covers, and ladles. In this design the lid fitted loosely into the ember pan, and both became considerably shallower than formerly. Curves were now introduced for the first time into their design. From about 1780 it became more usual for the wooden handles to be black-
japanned. These copper warming-pan were about one-third the weight of brass examples made in the seventeenth century.

The Earl of Carlisle’s household papers show that a copper warming-pan cost 14s. in 1741, 12s. in 1761, 10s. in 1773, and 9s. in 1778. In 1781, when the stamping-press had become established, the earl paid 3s. 10d. for a strong copper warming-pan.

Pewter warming-pan in which boiling water replaced charcoal were evolved in about 1770. By 1780 the wood handle might be made to unscrew from its socket, enabling the pan to remain in the bed all night if required. Soon the pan was being fitted with a short fixed handle to facilitate carrying. The hot-water warming-pan gradually superseded the charcoal-heated variety and by 1800 few of the latter were being sold. Sir Edward Thomason’s diary for 1807 records that one Birmingham manufacturer consigned to Buenos Aires ‘300 warming-pan which he could not sell at home, to a country where everyone called out for ice rather than heat. The consignee, not being able to get one purchaser, was driven to begin to repack, when, accidentally, a sugar-maker noticed them, and, imagining that they were an imported ladle for lifting the sugar cane juice from the boiler, he bought the whole, realizing a large profit on the consignment.’

The warming-pan had a subsidiary use. In 1660 it was already ‘fashionable to tinkle after bees with a warming-pan to let your neighbours know you have a swarm in the air’, a custom which continued well into the Victorian era.
Domestic Candlesticks of Brass

The glowing tones of antique brass candlesticks, their indescribable colour-range of orange, brown, lemon, madder, and honey, catching the light and returning reflections, capture the hearts of all who collect them. The innumerable twentieth-century reproductions, displaying spurious signs of wear, may be recognized by the collector aware that brass candlesticks can be divided into five well-defined groups:

1. Cast and turned to about 1700.
2. Hammered to about 1700.
4. Bivalve cast, 1780 to 1850.
5. Single castings, from 1860.

In addition, progressive improvements in the metal itself are to be noted.

Brass was not made in England before 1588 and then for more than a century only in limited quantity, the majority of ingots being imported from Holland and Germany as formerly. Methods of manufacture and materials were those used by the Romans 1500 years earlier. The basic formula for English brass was 40 lb. copper and 60 lb. calamine, both mined in Cornwall. This quantity produced 50 lb. of brass. Calamine is a zinc silicate which, when heated with copper, produces globules of brass. The copper was granulated by pouring it into water and the sifted calamine improved with the addition of fine charcoal. A little alum and salt were added. Because of variations in the quality of the minerals, early brass could not be standardized, although, soon after 1650, brassmakers endeavoured to overcome this deficiency by re-melting the ingots and adding copper or calamine as required.

Candlesticks known to have been cast from this early English brass show the metal to be highly vascular, a condition brought about by the impossibility of raising furnace temperature high enough to expel all gases from the calamine. As melted copper absorbs gases, large quantities of bubbles necessarily remained in the metal, resulting in a spongy casting, the turned surface
of which was marred with slight pitting. Brass plates also displayed this feature.

Early domestic candlesticks were usually of wrought iron, the design consisting of a tripod base supporting a pricket or spike, a dished flange being fitted below to catch the grease which dripped freely from the candles of the period. Brass does not appear to have been used for domestic candlesticks until the fourteenth century, when the candle-socket was introduced. The socket, which did not come into general use until the beginning of the sixteenth century, was at first used only in association with tallow candles, expensive wax being confined to pricket candlesticks of precious metal burned in ecclesiastical houses and homes of the wealthy. Until bullocks' tallow began to be imported extensively from Russia late in the Elizabethan period, fat from the domestic kitchen was used for candle-making. Tallow candles, from about 1600, were made from a mixture of sheep's and Russian bullocks' tallow in equal parts, and wicks were now spun from pure cotton and improvements made in spinning and twisting. Domestic candles were formerly very wasteful, a great deal of grease being lost by flickering and cracking. As the quality of candles improved so the need for drip-panes on candlestick stems declined, the high quality of English candles making this country's candlesticks considerably ahead of Continental design in this respect.

Until the reign of William and Mary, brass candlesticks were either hammered from sheets of brass or built from sections cast roughly to shape from plain moulds and then turned in the lathe. In some instances hammered work and castings were combined in a single candlestick. The stem was made independently from the foot, to which it was fixed by a projecting tenon on the end. This was hammered flat beneath the foot: sometimes a screw was used. A great deal of laborious turning was required on such candlesticks, and until about 1700 their makers were known as 'candlestick turners and tinkers'.

The base of the fourteenth-century brass candlesticks was a wide, flat disc supported by three short, outward-spreading feet. Rising from the base was a tall, straight stem, terminating in an open socket having a distinct downward taper; a short wing might project from each side. By the beginning of the fifteenth century the three feet were replaced by a shallow, outward-spreading foot-ring rising a little above the flat disc to form a drip-pan. A narrow knife-edge knop turned in a central position on the stem constituted the first step towards elaboration. This pattern, typically English and with various stem modifications, continued until the eighteenth century.
Early in the fifteenth century the fashionable domestic candlestick in brass followed the Flemish style. This stood upon a high, circular foot resembling a truncated cone or inverted mortar, with a deep, moulded ring encircling the platform to form a drip-pan. Directly to this was attached a short cylindrical stem. This was soon lengthened and decoration added in the form of, at first, one, then a series of three, four, or five matching and equidistant knife-edge knops. Instead of being attached directly to the platform of the foot, it rose from a high cone fixed to the centre of the drip-pan. The socket was no longer open, but an oblong aperture might almost encircle its lower half, a feature found as late as 1550. It was still tapered, but less than formerly.

Candlesticks of brass or latten are consistently noted in inventories throughout the sixteenth century: large numbers appear in the 1547 inventory of Henry VIII. Unfortunately, shape and size are seldom indicated, although ‘Flander candlesticks’ at about one shilling each are frequently mentioned. The 1556 inventory of William Knyvett of Thorntonbriggs refers to ‘2 great lattynge candlesticks, 5s.’ Metal at that time was worth about sevenpence a pound, indicating that ‘great’ candlesticks were those weighing about four pounds and over. John Wycliffe’s inventory of 1562 values ‘ij flower’d candelstykes and three beld candelstykes’ at five shillings. Many candlesticks weighed less than one pound, and these, usually noted in numbers around one dozen, were probably of hammered brass.

Several new patterns in brass candlestick design were developed during the sixteenth century, including the bell-shaped foot and the purely spool shape. Both were made in dozens of variations, tall and short, of large and small diameter. Stem mouldings became more decorative, baluster forms with knops being fashionable throughout the Elizabethan period. Sockets became fully developed and some were made without apertures; others had vertical slots extending almost the entire length, and examples are known with two apertures on each side—a vertical slot below a small circular perforation. These might be joined, forming a cusped opening.

There was a short vogue during the early part of the sixteenth century for a pattern which became extremely popular during the first half of the following century. In this the lower stem and foot formed a trumpet supporting a saucer-shaped drip-pan of the same diameter as the foot-rim. From this pan rose a short stem of smaller diameter than the lower section and supporting a socket.

Another early sixteenth-century brass candlestick stood on a foot composed of two saucers of equal diameter, one placed on the inverted base of the other
82. Candlesticks in which stem and socket are cast hollow in a single piece and the square hollow foot is attached. These were fashionable during the late eighteenth century, but made in a wide variety of stem patterns until the mid-nineteenth century. In the Victoria and Albert Museum.
and forming a deep drip-pan. In this pattern the socket, longer than usual and open at the base, was set on a ring brazed to the centre of the drip-pan. Sockets on rings date from the fifteenth century, and were also used on stems modelled in the form of human figures, among which a knight in armour was frequent, the socket being held by the uplifted head.

The most popular of Elizabethan brass candlesticks stood upon a highly domed circular foot with a spirally fluted or horizontally corrugated stem. This design was fitted with a flat drip-pan decorated on the upper surface with floral ornament in repoussé. This was placed immediately above the dome. Such candlesticks were known as ‘flowered’.

Throughout the seventeenth century there was a tendency to reduce the area of the drip-pan because finer quality tallow candles were becoming increasingly available. Separation of the drip-pan from the foot now became a permanent feature and the pan was set high above a trumpet-shaped foot, a feature revived from early in the previous century. The stem might be plain or horizontally corrugated and might have a cushion knop.

The middle of the seventeenth century saw the passing of the trumpet foot, the cylindrical stem continuing below the drip-pan to a low, wide, slightly concave circular foot. By 1660 the neck-ring encircling the stem immediately beneath the socket had become a highly raised knop decorating the upper stem. The brass candlestick of the second half of the century usually had a circular domed foot supporting a stem composed of a baluster, which might be inverted, and a wide variety of knops. By 1690 the drip-pan had been abandoned, its function being taken by a socket-rim expanded into a saucer-shaped nozzle. The oblong aperture in the socket of the English-made candlestick gave way early in the seventeenth century to a small circular hole, about the size of a pea, drilled in the centre or upper half of the socket. By the end of the century no aperture was considered necessary.

Brass candlesticks of the third group began to be made in about 1690 and continued for almost a century. Improvements in the casting process facilitated manufacture and required less metal than formerly. Brass so far had not been malleable: hence the necessity for solid metal in the construction of domestic candlesticks of the first period. It was now strengthened by adding 7 lb. of lead to each 112 lb. of brass, making it softer, more pliable, and rather yellow. To the French this alloy became known as ‘yellow copper’. This improved brass was still made from copper and calamine, and from about 1700 greater furnace heat was possible owing to the introduction of a more efficient
draught. The metal now contained far fewer gas bubbles than formerly, but even so the finished candlesticks displayed surface flaws. Stem and socket were now cast in separate halves and brazed together, leaving the centre hollow. This made it possible to fit a stout pin with a flat disc on each end into the stem, its length being such that pressure applied to the disc beneath the foot forced the rod upward into the socket, ejecting the candle-end.

So far brass-candlestick designs had been little affected by those of the silversmith, chiefly owing to differences in the methods of manipulating the metals. The brass-candlestick-makers had followed the basic designs fashionable in Western Europe, particularly those of Holland. During the reign of William and Mary, candlesticks of cast brass for the first time began to follow the characteristic forms of the more precious metal.

Early candlesticks cast by the improved method had rectangular feet and baluster stems. Octagonal, hexagonal, and highly domed circular feet were made throughout the reign of Queen Anne, usually with a central rise supporting a stem generally of baluster form. There was also a long series in which the inverted acorn was included, a feature of brass candlestick stems until about 1750. The acorn became more and more elongated until it reached an inverted vase shape. Very rarely indeed Queen Anne candlesticks might have the foot and socket-base encircled with gadrooning. Characteristic of sockets at this time was high cushion-moulding encircling the lower rim. At this time hollow cylindrical stems were first made in cast brass, a slot in the stem being fitted with an adjustable slide by which the candle-end could be ejected. Earlier, these had been made in hammered brass.

During the reign of George I, the octagonal foot might support a slender, octagonal stem, cast solid and faceted. During the 1720s, the octagonal foot might have alternate angles of the octagon recessed, forming a square with 'hollow angles'. A variant made during the 1730s had the sides of the square convex.

Brass candlesticks with lobed feet date from about 1740, at first with four lobes, then with six. During the first twenty years, the lobes were made to appear more prominent by grooving the foot surface and shaping its edge. Between 1760 and 1780 scalloped feet were fashionable. Throughout this period large numbers of common kitchen candlesticks were made with a single-knopped cylindrical stem on a low, domed foot. Chamber candlesticks of hammered brass were also made.

The 1770s saw the introduction of a fourth group of brass candlesticks.
This resulted from the application of the bivalve process to ordinary core-casting. By this method stem and socket were produced in a single piece, the foot being cast separately and attached. The appearance of the metal was also improved. In 1780 James Emerson, having been granted a patent for making brass from copper and zinc, established works at Henham, near Bristol. The brass for fine candlesticks was composed of two parts copper to one part zinc. Emerson's brass was described at the time as being 'more malleable, more beautiful, and of a colour more resembling gold than brass made with calamine'. Ingots were at once in great demand by the candlestick-makers of Birmingham. Mouldings on candlesticks cast from the new brass were more clear-cut than was possible with calamine brass and the surface was rarely disfigured by pitting.

The brass candlestick was now tinged a beautiful golden colour by being heated until slightly red and laid to pickle in diluted spirit of vitriol. After being washed to remove all dirt and scale, the candlestick, held in a pair of nippers, was immersed for a moment in aqua-fortis. The candlestick was then burnished with a bloodstone and finally lacquered. The demand for brass candlesticks became tremendous, while price was rather lower than formerly.

Brass-founders specializing in the casting, finishing, and polishing of candlesticks established themselves in most industrial centres. Specialization in the brass-founding industry took place because of the large number of expensive patterns needed by a general brass-founder to produce a full range of brass-ware. The brass-candlestick-maker employing a pattern-maker, two moulders, and several brass-workers, could start operations with very small capital.

Brass-candlestick design at the beginning of the third period continued the square-footed pattern fashionable from 1760. At first the square foot was flat with a plain edge; moulded edges date from about 1765 and the rare gadrooned edges a little later. Stems varied between the plain, attenuated baluster, rising from one or two knops, and the column. The latter, plain or fluted in the architectural manner and complete with capital, usually rose from the flat platform of a stepped foot. On these forms, when made before about 1780, an almost invisible line of brazing is to be detected down each side of stem and socket. Such joints have not been noted in candlesticks made from Emerson's brass.

The stem in the form of an elongated inverted cone, round or square in section, and generally fluted, rising from a high pyramid foot, was fashionable in brass from about 1780 and was always made from a single-core casting.
The foot-rim of an early specimen was encircled by an incised line or single cavetto moulding. Gadrooning occasionally decorated the upper surface of the foot and encircled the base of the socket, which was now made vase-shaped with an expanded rim forming a nozzle. The most common form of eighteenth-century candlestick found today is the tall inverted cone on a highly domed circular foot made between 1780 and the end of the century. This stem pattern appears to have been continued by some long-established brass-founders until the middle of the nineteenth century.

Stems displaying as their main feature a substantial vase-shaped ornament in association with numerous knops appeared in brass from about 1780, and by the end of the century showed a tendency towards over-elaboration. The wide, circular foot of this design rose in a series of low, moulded curves into a dome of medium height. The telescopic candlestick had a considerable vogue from about 1800 until the middle of the century. This consisted of a trumpet-shaped foot rising as a lower stem, into which slid the upper stem supporting a vertical-sided socket, its rim expanded into a nozzle.

This third period of brass-candlestick manufacture was also responsible for designs resembling those of the second period. By the end of the century, when the public was spending less money, some candlestick-makers cut costs in every possible way, with the result that poorly finished commercial monstrosities were developed in the less costly calamine brass. Candlesticks with oval and oblong feet were now made, often in association with well-designed baluster and knop stems.

Candlesticks of a fifth group are those with socket, stem, and foot made in a single casting. These date from about 1860, when the use of zinc or spelter in brass had become general.

Brass candlesticks were seldom enriched with incised ornament, but examples of the first period are known decorated with roughly incised patterns on the foot and socket. The flat-sided stem of the late second period was sometimes efficiently engraved, a matching design being continued on the foot. During both periods, inscriptions, usually of a religious or patriotic nature, might encircle the surface of the base. Metal of the third period was so much softer than formerly that incised ornament was seldom attempted until the middle of the nineteenth century.
XVII

Rushlight-holders

That 'small blinking taper made of rush', as Doctor Johnson defined the rushlight, has assumed a remarkable importance in modern conceptions of primitive cottage life. Rushlight-holders have long been a delight to collectors of peasant equipment such as they can seldom have proved to their original possessors, and recent reproductions abound. It may be advisable, therefore, to stress at once that rushlights apparently had no place in English homes until the middle of the seventeenth century, that their bleak little glimmer became important in cottages and servants' quarters only when laws and taxes to protect the candle trade prevented the home manufacture of more adequate lights, and that their continued use into the late nineteenth century created a demand for rushlight-holders more recent than is realized by those who regard these attractively functional bygones wholly as picturesque antiques.

Rushlights find no place in the voluminous and carefully kept Household Books (1612–40) of Lord William Howard, although payments for 'candell rushes vj' were frequent. Rushlights appear to have been little known until the Commonwealth period, and to have become popular in the southern counties only during the second half of the seventeenth century. Aubrey in 1673 noted that 'the people of Ockley in Surrey draw peeled rushes through melted grease, which yields a sufficient light for ordinary use, is very cheap and useful, and burns long'.

The use of rushlights became more widespread following the imposition of the 1709 candle tax. The Act made it illegal to buy candles otherwise than from a public shop, fair, or market. Candles could be made for home use only after one had secured a permit, renewable annually and costing one shilling per head of the family. This tax did not apply to 'rushlights made at home and passed only once through grease or kitchen stuff and not at all through any tallow melted or refined'. The candle-making industry was further protected by the prohibition of oil-burning lamps for domestic use;
only those burning fish-oil were permitted. This tax on light was not repealed until 1831.

Gilbert White, writing to the Hon. Daines Barrington in 1775, recorded that five and a half hours of rushlight cost one farthing and that ‘their average burning life is half an hour . . . a pound of common grease may be procured for fourpence, and about six pounds of grease will dip a pound of rushes, and one pound of rushes may be bought for one shilling, so that one pound of rushes, medicated and ready for use will cost three shillings . . . In a pound of dry rushes (peeled), which I caused to be weighed and numbered, we found upwards of one thousand six hundred individuals.’

The foundation of the rushlight is the common soft rush (Juncus effusus), found in moist pastures, on lake-sides, and along the banks of slow-flowing streams. Its thin, tough outer covering encloses a very light, porous pith. Such rushes are at their best for rushlights and candle-wicks in the early autumn, when they were cut with a reaping-hook and tied into small bundles. Then, according to Gilbert White, ‘they must be flung into water and kept there, for otherwise they will dry and shrink, and the peel will not run’.

Later, almost the entire peel was removed; the tip of the rush was cut off, and the skin peeled downward from point to base. A narrow rib of skin left in position supplied the pith with necessary support and strength. On special-purpose rushlights a second strip of skin was left diametrically opposite to the first. This made such rushes burn more slowly, although with less light; Gilbert White called them ‘watch lights’ and commented that ‘they give a dismal light’. Rush-peeling was a specialized occupation; as late as 1885 the Census Instructions Index listed ‘Rush Peelers for Rushlights’. The prepared rushes were later laid out on a drying-ground to take the dew for several nights, after which they were bleached and dried in the sun.

The grease, to which a little beeswax or mutton fat might be added to stiffen the rushes and make them burn longer with less smoke, was melted in a grisset, or rush-boat. This was made of heavy iron, capable of retaining the heat and keeping the grease liquid for a considerable time. It was pointed at each end and shaped like a canoe, about ten inches long, with three short feet, and a long handle projecting from the side.

The dried rush-piths were drawn slowly one by one through the melted grease so that it soaked into them. As they were withdrawn the grease solidified. The process of passing through the grease might be repeated and the finished rushlights were placed to dry on a sheet of bark. Rushlights varied
83. Floor standard rushlight holders with adjustable clips and candle-sockets. The second and fourth examples are 4 feet 8 inches in height. In the Victoria and Albert Museum.
84 (above, left). Rushlight holder and candle-socket of a type made in the late seventeenth century.

85 (above, right). Iron rushlight holders: two with cast-iron bases dating to the second half of the eighteenth century, and the third with a tripod foot, mid-eighteenth century. In the Victoria and Albert Museum.

86. Rushlight holders of wrought iron spiked into turned blocks of heavy oak. Early nineteenth century. In the Victoria and Albert Museum.
from twelve to thirty inches in length, each absorbing twenty times its own weight in grease.

A link between the rushlight proper and the tallow candle with a cotton wick was the rush candle. This had a core of pith with two ribs of peel extending beyond it, by which it could be hung from the candle-dipping frame. Milton, in Comus (1634), refers to the light of ‘a rush candle from the wicker hole of some clay habitation’. Their feeble illumination was less than that obtained from a cotton-wick dip, and a writer in British Apollo (1708) expressed wonder that ‘a Rush Candle should burn longer than a Cotten one’. Such candles were used in the sockets sometimes found incorporated in rushlight-holders.

Rushlights were seldom used in the northern counties and Scotland, where slips of split fir-wood were preferred. The best fir for the purpose was obtained from bogs and morasses. New fir was fortified by being dipped in melted resin. The work of splitting the fir-wood was supposed to equal payment in cash for bed and breakfast. These splits were highly resinous, and burned with good light. They were stored in a fir-cradle kept near the fire, dry and ready for use.

Rushlights were too slender to stand unsupported in candle-sockets, and their use prompted the design of an iron stand consisting of a pair of nippers kept tightly closed by either a weighted lever or a spring. The correct position for the burning rushlight in the nippers was slanting slightly upwards from the clip, but more horizontal than vertical. Any surplus melting grease then tended to trickle down the rush, where it would be consumed or caught at the nipper without falling off. A rush measuring about one foot would be held at the extreme end; a longer one would be nipped near the middle and moved forward as the flame neared the holder.

Rushlight-holders were in the main of wrought iron, usually roughly finished by blacksmiths anxious to make these humble appliances in the shortest possible time. Each smith tended to follow a pattern favoured locally, but varying each example slightly according to the material that chanced to be available in his forge.

Table rushlight-holders were in the great majority. Until the eighteenth century such a holder consisted of a vertical stem rising from a spike driven into a heavy block of oak and terminating in a tapering pincers-like clip. The upper end of the stem was flattened, and immediately below this swung a movable arm, one end flattened to match the stem, the other and longer end
continuing in a U-shaped curve to end in a counterweight, often in the form of a candle-socket. This weight was sufficient to close the nippers firmly and thus grip the rushlight in the required position. Occasionally, during the eighteenth century, the jaws might be held closed by a strong spring.

Iron was expensive in the seventeenth century, and the feet of rushlight-holders consisted first of heavy cubes of undecorated oak. Then came the plainly turned cylinder, followed by the cone or inverted flower-pot form with slight ornamental turning such as grooving. As iron became less expensive early in the eighteenth century, the rushlight-holder might rise from a foot composed entirely of wrought iron. The early iron foot, continuing throughout the period, was a plain tripod, and the tips of the spreading legs were bent to form flat feet.

Furniture in the homes of the peasantry became less crude in the eighteenth century, which enabled a four-legged rush-holder to be used without danger of falling. Two pieces of flat iron rod, broadened at each end, were welded to the foot of the stem in the form of a cross, and then gracefully shaped into a high dome or into double curves. Extra weight might be given by welding an iron ring or square to the feet. Low domes of cast iron four inches or more in diameter were sometimes used as feet in the late eighteenth century, the stem being screwed or riveted into position.

Numerous variants are found of these basic types of table rushlight-holders. The stem might be given a spiral twist to ensure a safe grip when carried. Chamfering and incised lines belong to the late eighteenth century and afterwards. The counterweight might take the form of a long cylindrical knob or be curled into a decorative scroll. A candle-socket might be made separately from iron hammered into cylinder shape and welded or riveted to the arm, but more usually a narrow, funnel-shaped socket was drawn from the metal of the arm itself. Another popular socket was formed of a spiral of thick iron wire, square in section: the candle was moved up and down by a bar running within the spiral. The ends of the clip that held the light were usually plain and straight; towards the end of the eighteenth century triform ends became general in better-quality examples. Sometimes the clip was widened and each member shaped centrally so that a candle might be placed there if desired.

Cast iron was used for table rushlight-holders from the late eighteenth century, and stem and tripod feet were usually miniature copies of contemporary tripod tables. In such a holder the counterweight was provided by
a slight increase in diameter along the length of the swinging arm. The clip ends might be highly decorated.

Standard rushlight-holders were made for use at the spinning-wheel and similar employments. These averaged four feet in height and at first were supported by heavy oak blocks; later some stood upon wrought-iron tripod legs. The rushlight clip and the candle-socket were fitted to a carrier which could be moved up and down the stem and was gripped by a friction spring. Where a spike was required for insertion into a wooden base, the lower portion of the stem was of greater diameter than the upper two-thirds, enabling the spike to be made stronger, and steadying the holder by its extra weight. At the welded junction a wrought-iron stop was fixed to prevent the carrier from slipping unnoticed to the floor, where the flame might cause a fire. (When this safety precaution is omitted, a holder should be suspect: reproductions of most types have been made for at least twenty-five years.) The top of the stem was fitted with a decorative finial, sometimes of cast brass, more usually of turned iron.

A spiked rushlight-holder of the table type might be inserted into the top of a wooden standard, sometimes plainly square, octagonal, or turned, supported by a foot of hard oak. Such lights were not adjustable. In another frequent type the standard was pierced at regular intervals with square holes for the fitment of a rushlight-holder equipped with a leg bent at right angles to the upper stem. A fourth and now uncommon type of standard had a stem consisting of two uprights, one rising from the supporting base, the other holding the clip and constructed to be moved up or down on the ratchet principle.

The now scarce pendent rushlight-holders were made for use in raftered buildings; others designed for suspension from cords stretched across the room have been termed 'weaver's holders'. Such a holder was made with a centrally placed swivel joint. The clip might be welded to a ratchet similar to those found on adjustable pot-hooks. Another form of pendent rushlight was adjusted by means of a friction spring similar to those found on standards.

Yet another form of rushlight-holder was made with a spike at right angles to the clip, to be driven into a wall or beam. Even simpler was a device for holding a rushlight that appeared in the middle of the eighteenth century, and consisted of a spring clip resembling tweezers and mounted on a turned wooden base.
XVIII

Tea and Coffee Urns: Sheffield Plate, Copper, Japanned Ware

Whether the collection be of mellow Sheffield plate, glowing copper, or rainbow-rich japanning, it is incomplete without one or two urns. For making the tea, the coffee, and the various hot alcoholic drinks that typified late Georgian hospitality, the ubiquitous urn was indispensable. With other tableware it shared the changing v vogues of late eighteenth-century neo-classicism, Regency solemnity, and all the florid extravagancies of post-Regency inventiveness. But always its basic usefulness controlled its design. Its story is the more interesting, its chronological assembly the more fascinating, because this can be traced throughout not only by the usual features of outline and surface decoration but also by the introduction of various technical improvements and patent devices—the working features that give this type of vessel its particularly vivid link with the times that first enjoyed it. It is the more surprising, therefore, to find that few collectors, even among those specializing in the assembly of these handsome vessels, have given much thought to their chronological development.

Elegant silver kettles mounted on stands containing spirit-lamps graced early Georgian tea-tables, or stood near at hand on short tripod tables which were edged with low, fretted galleries. Each time hot water was added to the expensive leaves in the silver teapot the servant had to lift and tilt the kettle, a somewhat heavy and hazardous duty among the elegant furnishings and billowing dresses of a tea- or coffee-party. Even by the mid-eighteenth century, however, the problem was being met by a somewhat inelegant but ingenious hot-water kettle with a tap fitted immediately above the kettle’s broad base. Known as a ‘tea fountain’, this quickly evolved into what Cowper in 1784 referred to as ‘the bubbling and loud-hissing urn throwing up a steamy column’. For tea-time use the urn might accompany other articles of the tea-equipage upon the tea-tray, or stand separately on its own table. The

91 (above). Coffee urn in Pontypool Japan. Cylindrical body, with tap and two lion and ring handles, resting on square box with perforated sides containing lamp for heating. Four lion feet. Decoration in shaded gold and silver. In the National Museum of Wales.

92 (above). Coffee urn in Pontypool Japan, decorated with a rustic landscape with figures and sheep, by Thomas Barker. In the National Museum of Wales.

93 (right). Black urn, with decoration in gold, circa 1800. In the National Museum of Wales.
giant urns of the nineteenth century found a place upon the sideboard at breakfast time.

The vessel became known as an urn from the design of the small early teatime type containing only a quart of water, now particularly prized by the collector. Making its appearance early in the time of the neo-classic vogue, it was welcomed by designers who found it difficult to make a convenient teapot in the desirable classic outline. The new vessel followed the form of the urn-shaped vases in contemporary porcelain, with a narrow neck, wide-topped, tapering body, short stem, and square foot. By the end of the century three standard sizes of tea-urn were in regular production, holding a quart, three pints, and a gallon, to be followed from 1805 by five-, six-, and even eight-quart sizes. Some were made of silver, a much larger proportion was in Sheffield plate, from 1785 to about 1820 an attractive series was made in colourful japanned ware, and in about 1820 began the long and more numerous series made of copper.

These urns are styled as though the entire series was used for tea only. Contemporary catalogues, however, show that a considerable number were used for keeping coffee hot. Illustrations of three-pint sizes are almost invariably captioned ‘Coffee Urn to hold 3 pints’. Catalogues issued earlier than about 1820 indicate that there was a greater demand for the three-pint coffee-urn than for the larger tea-urn. The demand may have been from the Continent.

Charcoal was used to heat the water in the first of these urns. In this design the body could be lifted from the spool stem which supported a perforated cylindrical container for burning charcoal. Rising from this brazier, and passing through the body, was a draught-tube or chimney, gradually diminishing in diameter and terminating in a loose finial decorating the top of the lid. Removal of the finial, which was kept securely in position by means of a catch, created a draught. This drew the hot air through the chimney, heating it and thus keeping the water hot.

Charcoal-heated urns were superseded by the invention in 1774 of the tea-urn in which the temperature of the water was maintained by means of a cylindrical box-iron. This iron was made red-hot in the kitchen-fire and inserted into a close-fitting heater-case, or deep socket, which rose centrally from the base within the urn and around which the water circulated. This was patented by John Wadham, a brazier of St George-in-the-East, London. The patent specification, No. 1076, is accompanied by a sketch showing a sectional view of such an urn. This method of heating became general after
the expiration of the patent in 1788. The patentee is known to have supplied copper heating-cases and cast-iron box-irons to Sheffield at a cost of five shillings each. Such a heater is always found in a tea-urn made after about 1800, even if the urn is equipped with a lamp.

Wadham was also responsible for the double-compartment tea-urn 'so that the machine will answer the purposes of tea-pot and boiler together'. The water was boiled in one compartment, a valve then permitting it to flow upon tea leaves contained in the other compartment. The hot, liquid tea was then served directly into cups.

Rather surprisingly, tea-urns heated by spirit-lamps do not appear to have come into use until about 1790. These were more efficient than either of the other types. The smokeless spirits of wine burned as fuel was very costly, however, not always available outside the metropolitan area and certain industrial centres, and always liable to pilferage by dishonest servants. Not until the 1830s were less expensive, non-odorous, smokeless fuels available, such as camphorine. There was then a fashionable reversion to the silver or silver-plated tea-kettle with its lamp and stand. Sarah Guppy, in a patent specification of 1812, records that candles were sometimes used in connection with such tea-urns. Her own contribution to the story of tea-urns was a fitment for suspending in the container by which 'one or more eggs may be cooked by the aid of the heated fluid or the steam issuing therefrom'.

When tea-urns were first made, Sheffield plate could only be produced with silver on one side of the copper sheet. A considerable chapter in the story of tea-urns concerns the various methods of combating the hazards, real or imagined, associated with copper as a food- or water-container. It was realized that the action of acid on copper produced verdigris. But while some cookery books of the period instructed their readers to use a brass, bell-metal, or copper pan when requiring bright green vegetables or other foods, the manufacturers of cooking vessels were seeking ways of tinning the interiors. Until 1770 the tinning wore badly and urns required very frequent re-tinning. An improved method of tinning was patented in that year by John Bootie, a brazier of St Martin-in-the-Fields. The specification of patent No. 901 describes the process: 'the interior of the copper vessel must be clean, washed over with salarmoniack water and well heated, no other metal made use of but pure molten tinn [made by the shot method]. The outer surface must be wiped off clean and covered with a glue-whiting mixture [to prevent the accidental spilling of tin from marring the metal].
The molten tin was then poured inside the vessel until the entire copper surface was concealed beneath a thick coating of tin. When cold, the interior was coated with strong beef brine, heated and then quenched in water, scoured clean, tinned a second time as before, then planished and tinned a third time. It was finally filled with water to soak and take out the salts, and then scoured with common sand. The brilliance of the result resembled pure silver.

Even this process of tinning was imperfect, however, and the action of food-acids on carelessly cleaned copper made the possibility of verdigris poisoning very real until 1790, when a patent was granted for an improved method of preventing corrosion and ‘all those noxious effects from copper and brass when used for culinary purposes or for containing or carrying water’. It now became practicable to make less expensive tea-urns from copper alone, but because this metal was controlled for war purposes few appear to have been made until 1820.

Inevitably the early urns of Sheffield plate followed the designs of contemporary silver. The design was strictly on the lines of the classical vase. An everted neck, strengthened by applied gadrooning or other simple moulding, topped a smoothly tapering body, either undecorated or chased with plain and foliated scrolls, beads, and other ornamental designs, a cartouche reserving space for a coat of arms. Two short vertical loop-handles were attached to the shoulders, extending from immediately below the neck to the widest curve of the body, and each terminating in a double lug. The bell-shaped lid was topped by a cast knob of classical design. The thick, spool-shaped stem, plain or chased to match the body and rimmed with applied gadrooning, was supported by a square plinth rising in the centre. This was encircled by an apron which might be pierced or chased and raised upon four scroll or bracket feet. The moulded cock or tap projecting horizontally from the base of the body was an inevitable interruption in the harmony of the design. It was enriched with motifs usually associated with the body decoration or the handles.

The tea-urn with its body shaped in the form of a narrow-necked classical vase appeared about 1770 and had a thirty-year vogue. Narrow and tall, with an extremely graceful silhouette, this style of urn was usually severely plain, apart from the handles and an engraved coat of arms. Some examples are encircled with sparsely applied ornament in low relief, such as festoons of foliage, acanthus leaves, or a classical medallion. This pattern is illustrated in a Sheffield plater’s list dated 1774: Frederick Bradbury, however, in his History of Old Sheffield Plate (1912), quoted examples said to belong to the early 1760s.
The lid finial might be in the form of a bird, animal head, or classical motif. From about 1770 a pair of S-shaped handles attached to the body at the neck-junction, rising above the lid, and recurving at first halfway down the body and later to the base of the body, became fashionable and remained a more or less standard fitting until about 1790. When fitted with a box-heater the stem of such an urn was made extremely slender.

The lower part of the body might be ornamented with fluting from about 1780. In this case the lid finial and the square foot might also be fluted. Such fluting might be spiral. In 1792, tea-urns with fluted bodies enriched with silver mountings and garters were priced according to capacity: gallon, 160s.; three pints, 70s.; quart, 60s. Plain-bodied urns in the same sizes cost 147s., 64s., and 54s. each. Garters—the ornamental strengthening encircling the upper rim of the urn body—were made in a variety of designs.

The narrow neck was widened from about 1790 and well-modelled human or animal heads with solid pendent rings were used as handles. Lancelot Palmer in a patent specification dated 1786 noted that tea-urn furniture—cocks with their outer strengthening washers, garters, handles, and finials—was often gilt. Pattern books make no reference to this enrichment. Tea-urn furniture, until about 1820, was usually the work of specialists in this branch of the trade.

In the 1790s there was a long series of vase-shaped urns in which the body contained four wide vertical depressions running its full length, alternating with four narrow, flat-topped, raised flutes. The foot was a similar shape on plan. The lid was in the form of a slender spool expanding towards the base to fit the body opening. Those of gallon capacity cost 170s. from the merchant, probably £12 10s. in the shop.

The demand for a wider body, less elongated than the classical urn, found happier expression towards 1805, when a pattern with a body resembling a wide-mouthed vase became fashionable. Until about 1810 the body was nearly hemispherical with little applied decoration apart from the heavily moulded U-shaped handles. Below the body a stemmed foot was supported on a square plinth raised upon four heavy paw or claw feet. From about 1810 in this design the body rim was everted and the lower portion decorated with wide fluting. Many examples were so designed as to appear to have two lid rims, each bordered with matching gadrooning or other moulding. Heavy mounts around the rim of the lid and ornate finials were applied in patterns apparently bearing no relation to each other or to the shape of the tea-urn.
The heavy oak and shell ornament was at the peak of its popularity during the Regency, although used as early as 1805.

George IV tea-urns were made in all former shapes with the addition of florid mounts. They also grew to enormous proportions, and when full and weighted with heavy cast-iron heaters the six- and eight-quart urns were far from portable. From 1820 the firm of I. & I. Waterhouse issued tea-urns made in the form of the then fashionable Warwick Vase. These are always marked, those made before 1833 with a crown, and afterwards with the fleur-de-lis.

As already explained, the heating of tea-urns by spirit-lamps was developed only from about 1790. Then appeared a new design in tea-urns accompanied by a spirit-lamp and with a flat-bottomed container resembling an Indian funerary urn in form. The urn was supported at shoulder and rim by four flat upright reeded columns rising from claw-feet soldered to the corners of a rectangular plinth with incurved sides and itself mounted on four ball-feet. Upon the plinth, often in a circular depression made for the purpose, stood the spirit-lamp, often shaped as a miniature edition of a stemmed urn. Until about 1810 the spirit-lamp tea-urn was fitted with lion-ring handles.

During the Regency years, the hitherto plain body and the top of the lid were fluted. Horizontal loop-handles might now be fitted. Catalogues of the period illustrate spirit-lamp urns and specify silver mounts. With fluted bodies wholesale prices were: six-quart size, 160s.; three-quart coffee, 118s.; and with plain bodies, 150s. and 110s. each. They were made in Sheffield plate until about 1830.

Some spirit-lamp urns of the 1790s and the early years of the nineteenth century were made with ball-shaped bodies, usually plain-surfaced, sometimes ornamented with narrow all-over fluting. Their plinths supported ball-shaped spirit-lamps. One now rare type of tea-urn resembled a wine-cask supported on a pair of trestles with paw-feet rising from a ball-footed plinth upon which rested a spirit-lamp in the form of a Grecian urn. Soldered to the top of the cask was a reclining lion of silver. These tea-urns were made in six-quart and three-pint sizes. Fitted with silver-ring handles and silver mounts the larger size cost £13 13s. at the factory, the smaller size £6 16s.

During the Regency period, another now rare series of urns was made following the lines of the contemporary wine cooler. In conformity with the floridness expected in Sheffield plate after 1820, the four upright columns were curved into S-shape, each with an animal or bird head extending from the upper end.
A coat of arms or a crest was often engraved on a Sheffield-plate urn, appearing on the body above the tap: presentation pieces were usually inscribed. In urns from about 1780 until the end of the century copper was plated extra thickly to permit the deep-cut engraving then fashionable. The skilled use of an engraving tool, cutting lightly on the side-stroke method, did not penetrate the silver. The lowest deposit consisted of twelve ounces of silver to eight pounds of copper.

From shapes and styles of the urn furniture it is apparent that the water-containers of large tea-urns were made of Sheffield plate long after other goods were made of fused silver upon german silver and its associated alloys. This was because large hollow vessels of this kind could not yet be profitably spun or stamped. Collectors will find that few eighteenth-century urns in Sheffield plate were marked by their makers. Between 1800 and 1820 marks continued to be infrequent, but after 1820 all good quality Sheffield plate was struck with makers’ marks.

Copper tea-urns were made in large numbers when copper was freed from control after the close of the Napoleonic wars. No example has been noted which could possibly be identified as earlier than 1820. Such urns were widely used in punch-houses, taverns, and inns to keep a continual supply of hot water available for making hot punch, which was then a fashionable drink.

Copper urns followed the style of contemporary Sheffield plate but often with inexpensive, poorly finished furniture attached by copper rivets. Some of these accessories emanated from sources which supplied the Sheffield platers with their furniture, for examples have been noted in which the same tools, very much worn, have been used.

As in silver and Sheffield plate, the bodies of copper urns were hand-raised. A circular plate of copper was prepared, its area being calculated to produce a hollow container of the required shape. Large grooves radiating from the centre were struck into the disc and the copper was then hammered on a stake fixed in a vice until the body gradually became hemispherical, a sharp-edged wooden mallet being used. After each stroke the metal was moved a little until the exact size and shape were achieved. Sometimes a copper tea-urn has a hall-marked silver shield riveted or soldered to the body above the tap: the date letter here fixes the year of manufacture. Some copper urns made between 1820 and 1845 bear a stamped imprint, ‘Warranted Best London Manufacture’.

Many copper urns have been electro-plated within recent years and sold as
Sheffield plate at a greatly enhanced but untrue value. Such urns may be detected, because the furniture is riveted instead of soldered into position, and also by the absence of silver mounts. In a late example the handles consisted of a pair of moulded brackets joined by a metal rod upon which revolved a finger-grip of hard white china.

The cocks of tea-urns, whether fitted to Sheffield plate or to copper, were invariably a source of trouble to both makers and users. For more than half a century the soft metal from which they were made rendered the cocks liable to drip shortly after being brought into use; taps were easily bent; and the close fitting of plugs into the container was a difficult process, which under careless use easily resulted in a leak. Until about 1830 the majority of cocks were cast in two halves and joined: Bradbury records that many were stamped in dies, but these would date after 1820. Some were made of brass, but because of the possibility of verdigris poisoning, a long series was cast from hard pewter—an alloy of tin and bismuth. Early cocks were close plated; from about 1840 they were electro-plated. From the late 1820s the cock was cast in a single piece from german silver or one of its associated alloys. Such cocks, which overcame former weaknesses, are often found as replacements on earlier tea-urns.

Tea-urn cocks at first followed the patterns used by contemporary silversmiths, but from about 1790 it was the Sheffield plateers of Birmingham who led in cock design. On tea-fountains the cocks were smoothly plain with sturdy T-taps and undecorated spouts, features which, generally speaking, continued with plain-bodied urns. Cocks and strengthening washers on chased examples of the charcoal-heater period were elaborately moulded in matching styles.

Spouts until about 1785 might be moulded in the form of dolphins, bird or animal heads, often matched by the lid finials. T-shaped taps were often in the form of escallop shells, usually plain and sometimes fluted, and might be of green stained ivory or black ebony, again with lid finials in the same material.

A type of cock marked 'patent' and made from about 1790 had a conical centre through which ran a vertical slit that was opened by pulling forward a U-shaped tap-lever with a knob finial of ebony or ivory. This type of cock, with the tap-lever positioned to the right, was in general use on urns made during the nineteenth century. It has not been noted on copper urns. During this period, spout and plug might be boldly reeded. The bow-shaped tap, which
stood vertically upon the cock until pulled forward to release a flow of liquid, was an improvement dating from about 1820. Bows were moulded in florid patterns with large central knops. This type of cock is found to the exclusion of others on copper urns. The cock fitted to an urn in Grecian outline might be heavy and elaborately designed with a lion's-head spout matching similar handle decoration. The outer strengthening washer was more expensive than before, and a field for moulded ornament.

Japanned iron, made in South Wales, Wolverhampton, and Birmingham, was found to be an excellent material for tea- and coffee-urns. It had the virtue of enlivening the table with brilliance of colour without requiring to be polished, and was much less costly than Sheffield plate. Eighteenth-century examples, in graceful shapes adapted from those of Sheffield plate, were made from sheet copper, the containers being hand-raised. During the late 1780s, the japanners, probably at Pontypool, produced urns heated by means of charcoal braziers. These were made from a fine quality tinned iron plate known to the trade as tin iron and made especially for japanners. This had been evolved in 1784 and was rolled from best bar iron containing charcoal instead of coke. The tin used for plating these sheets was pure grain tin made in the form of shot.

Urn with vase-shaped containers were hand-raised in copper. This type stood upon three cabriole legs terminating in applied feet of ebony or other insulating material so that the urn might stand directly upon a japanned picture tray without damage to the painting. It was fitted with a highly domed lid terminating in a lathe-turned acorn finial in brass or japanned iron. The smaller sizes, such as the three-pint coffee-urn, were fitted with a single handle for carrying, such as might be found on a jug.

Often a fine quality example was accompanied by a triangular tray decorated to match. Upon this stood the spirit-lamp, contained in a low cylindrical box with perforated sides. A long series of japanned tea-urns had containers of ovoid shape with pairs of brass lion-head rings for lifting purposes. These urns were heated by means of interior box-irons. The stemmed bases were filled with lead to ensure stability. The cocks fitted to japanned tea-urns were usually of the type then catalogued as 'brandy cask cocks', with removable tap keys.

Urn made of tinned iron sheet, following a design patented by Edmund Levno in 1796, had cylindrical or ovoid bodies containing a centrally placed 'flue' for conveying heat through the centre of the urn. This was supported
94. A group of copper tea urns with box-iron heaters and brass cocks, dating between 1820 and 1850. In the Old England Hotel, Windermere.
upon a cubical box with perforated sides. This cavity was made to receive a brazier or chafing dish of red-hot charcoal. These tea-urns were raised on four lion-paw feet of brass, with lion-head rings for handles. Others were cylindrical throughout their length, the lower third being perforated and partitioned off to contain a brazier.

The decorative japan-work was of a heat-resisting quality and there is no evidence to show any source of this other than Pontypool and Usk. Ground colours included an extremely beautiful blue, tomato red, deep crimson, dark and pale green, orange, grey, and black. Pictorial, floral, and Oriental decoration might be in any of these colours with the addition of shaded gold and silver. A single picture or design might encircle the entire body. The subject of Pontypool and Usk japan-ware is fully discussed in the first volume of this series.
The pretentious ceremony of sixteenth-century dining evolved around the butler, intricate rules being laid down governing his every movement, before, during, and after the meal. Among the equipment associated with his office from the days of Henry VIII has been a sturdy T-handled cork-screw with a worm of solid steel. Contrary to general belief, corks were used for sealing wine and other bottles from early in the sixteenth century. Palsgrave in 1530 directed a servant to ‘stoppe the botelle with a corke’. Spanish-made bottle-corks were sold in London during early Elizabethan days.

Bottles of black glass strong enough to bear transportation when filled with wine were costly, being imported from France until about 1615 (see Chapter VIII). But the bottled ales, already popular, were corked in bottles of thin, home-produced glass, pale greenish-yellow in colour. Again contrary to general belief, the corks for wines, ales, and other liquors from which it was necessary that air should be excluded, were pressed right home into the necks of the bottles and their tops sealed with a mixture of resin and pitch.

Contact with the liquor swelled the corks and ensured a tight fit. To draw them, a cork-screw was essential, and in Tudor days these were wrought by ‘twysting the end of bare bodkyns’ into spirals. This produced straight-shanked rods of steel terminating in short boring screws similar to those on gimlets. Fitted with transverse T-handles that might be of turned bronze or brass, ornamental wrought iron, carved oak, or plain cylinders of either material, such tools easily worked their way through cork, a substance elastic enough to grip into the furrows of the spiral. These auger-type cork-screws, known as ‘wimbles’ and ‘augres’, were made by toolmakers specializing in implements for the cooper and other craftsmen in wood. Robert Stuart in reviewing the history of engineering (1829) noted that this type of cork-screw was at that time ‘the extractor in most general use’. They are still prevalent on the Continent.

An improved cork-screw was introduced in the middle of the seventeenth century, the piercing element being a three-inch helix spiral terminating in a
sharp point, and known as a ‘worm’. These were forged from steel wire heated in a smokeless charcoal fire. Grew’s Museum (1681) refers to ‘a steele worme used for the drawing of corks out of Bottles’. English cork-screws continue to be made in this form, the steel wire during the past century being spiralled mechanically while cold. In some districts ‘worm’ is still the dialect name for this type of cork-screw—originally an English invention.

Georgians, however, preferred the word bottle-screw which came into use at the end of the seventeenth century. ‘The worm of a Bottle Screw’ is noted in Philosophical Transactions (1702). Nicholas Amherst, in his poem ‘The Bottle Scree’, published 1720, has Bacchus exclaim: ‘This hand a cork-screw did contain, and that a bottle of Champaigne’. This is the earliest use of the word cork-screw so far noted. Bottle-screw and cork-screw appear to have then been used concurrently throughout the remainder of the eighteenth century: the term bottle-screw was used by Dean Swift in his Directions to Servants, written in about 1730 but published after his death, and the index of a trade catalogue published during the late 1790s uses the same word. The accounts for All Souls College, Oxford, refer to cork-screws which cost one shilling and sixpence each in 1750 and one shilling in 1763. Late Georgians were inclined to refer to the cork-drawing instrument merely as ‘the screw’. It became customary for a host to invite his guests to take ‘kettle or screw’, kettle suggesting the newly fashionable hot punch, screw indicating wine.

Those Georgians who could afford a well-stocked wine-cellar often received presents from appreciative guests in the form of cork-screws resplendent with precious metals and jewels. The gold or silver handle was moulded into a decorative shape, often including in its design a motif of personal significance such as a crest, and might be set with precious or semi-precious stones. From about 1780 the worm of polished steel was usually fluted, a refinement considered to ease the passage of the spiral through the cork with less risk of causing it to crack and fall to pieces while being withdrawn from the neck of the bottle. Such cork-screws were included among domestic plate in eighteenth-century inventories. Milady’s scent-bottles, smelling salts, and similar vials, tightly corked when received from the shop, might be opened with miniature cork-screws, spiralled throughout their length, which were included in the equipment of fashionable étuis.

Cork-screws used in cellar and taproom by keepers of coaching-houses, taverns, inns, punch-houses, and other places of refreshment were sturdy affairs with thick T-handles of oak. During the second half of the eighteenth
century, such a handle might be turned and carved to represent an elongated barrel complete with staves and encircling hoops. A brush extending from one end of the handle was used for removing all traces of the pitch-resin seal from the bottle-mouth before the cork was withdrawn.

The worm and shank of a cellar cork-screw were forged from a single length of steel. On inexpensive examples the spiral was welded to an iron shank. The end of the shank passed through the centre of the wooden handle, where it was clenched over a metal washer on its upper surface. Good-quality examples possessed plainly smooth helix spirals, which might be fluted at a cost of about 75 per cent extra.

Cellar cork-screws from about 1840 might have T-handles cast from the various German silver alloys and silver-plated; cast from brass which might be double or treble gilt; or cast in cheap malleable iron. A similar type of cork-screw for dining-room use might have a handle made of colourful agate or the pointed end of a ram’s horn; there was a long series carved from hardwood in the form of sporting animals.

The cork-screw of cut and burnished steel with the worm protected by a sheath, enabling it to be carried in the pocket, was made by the steel-toy makers and dates not earlier than about 1750. By 1775 the cork-screw makers had established themselves as specialists in this one branch of the steel-toy trade, with workshops concentrated mainly in Wolverhampton, Birmingham, and Sheffield. They were responsible for the majority of finely wrought examples that find their way into collectors’ cabinets.

Pocket cork-screws became fashionable when, after more than a century of prohibition, it was legally permissible to buy single bottles of wine, cordials, and so on. Purchasers preferred to have the corked bottle, bearing intact the seal of the vintner who bottled it, brought to the table, where the host at his convenience would withdraw the cork with his own cork-screw. These were always meticulously forged from the best steel and highly burnished. The spiral was drawn from the same piece of hard steel as the shank, which might be left plainly smooth but more often was tooled in the form of a slender baluster with one, two, or three knops of various shapes.

The most typical pocket cork-screw was made with a solid wrought ring-handle drilled with a flat inner surface. The majority were of a diameter which permitted the tapering protecting sheath to tighten halfway, thus forming a T-handle capable of supplying the necessary leverage to force the spiral into the cork. The sheath, which might taper either towards or away from the

99. English thimbles. In the top row are four examples of South Staffordshire painted enamels with narrow rims of double-gilt metal. The other three thimbles are of silver and ornamented with wide bands of filigree work. In the centre is a thimble-holder of turned rosewood, mid-nineteenth century, and below it a filigree box for two thimbles. On the left is a thimble combined with a needlecase. In the Victoria and Albert Museum.
point of the spiral, was turned and drilled from solid steel. The interior of 
the mouth was threaded to fit matching threads cut into the lower part of the 
shank immediately above the spiral: the other end was ground flat to serve as 
a tobacco-stopper.

On the standard pocket cork-screw from the mid-1780s the outer surface of 
the shank, instead of being smoothly plain or decoratively turned, might be 
vertically ribbed. Others, more expensively, were ground hexagonal or oc-
tagonal, and highly burnished, the ring being cut with facets to match. Later, 
a series of rings of larger diameter was made from thin-section steel, enabling 
the cork-screw to be carried with keys on the newly invented split-ring. In 
other examples the ring was widened at the top into a flat disc, which might 
be cut with the owner’s seal or engraved with his crest or cypher. From the 
mid-1790s a series with wide, oval rings was made, these being large enough 
in themselves to serve as handles. The sportsman’s pocket cork-screw had a 
T-shaped handle, one end in the form of a whistle, the other cut as a seal, with 
the end of the sheath used as a tobacco-stopper.

Birmingham trade pattern-books issued at the end of the eighteenth century 
illustrate a wide variety of pocket cork-screws, ranging from the very plain 
smooth-necked type at three shillings and eightpence, to elaborately cut and 
burnished examples costing fourteen shillings and tenpence each; the majority 
of patterns were priced between eight and nine shillings each. These were 
rates charged by manufacturers to merchants: shop prices would be almost 
double. It continued fashionable to carry a sheath-type cork-screw of burnished 
steel until early in the Victorian period, when mechanically spiralled worms 
so drastically reduced the price of simple cork-screws that they were available 
in all but the poorest of homes.

The early pattern-books illustrate a pocket cork-screw consisting of a 
wrought-steel bow, its end incurved to form two lugs between which hinged 
a cork-screw spiral. When folded, its point fell just short of the full extent of 
the bow, the outer surface of which might be thickened and faceted at that 
point, thus making the implement safe to carry in the pocket. Also hinged 
between the lugs of the bow might be an ear-pick, snuff-shovel, button-hook, 
and awl. Another popular type was a combination cork-screw, fire-steel, and 
seal. The point of the fire-steel, its handle in the form of a flat, circular seal, 
was forced to its full extent down between the curves of the spiral, thus pro-
tecting its own point and that of the cork-screw.

The utility and accuracy of cork-screws were greatly increased from 1795
by the invention of 'the king's screw', patented by Samuel Henshall, of Christchurch, Middlesex. In this, a cylindrical socket 'which is to receive the neck of the bottle in order to guide the screw centrally into the cork', was fitted to the cork-screw spiral. The sides of the socket were usually of burnished steel, but sometimes of polished brass, and might be solid. Others, however—and these are the earlier examples—were finely pierced with ornamental designs. The worm was operated by a handle resembling that of the elaborately forged, pierced, and chiselled door-key of the period.

'The king's screw' was the first of some two dozen patents taken out in connection with cork-screws during the next half century. These died well-merited deaths, with the exception of the type which demonstrated that, by using a sleeve with male and female screws, the cork might be drawn more easily and evenly from the bottle with a minimum disturbance of its contents. The cork-screw collector will find considerable difficulty in securing a full set of these unpractical cork-screws, some of which sold in tens of thousands before their difficulty in use was fully demonstrated.
Thimbles

Open-ended bronze thimbles covered with a network of hand-punched indentations, and worn by the Romans two thousand years ago, were found in the ruins of Herculaneum. Precisely similar thimbles have been excavated in the City of London, and with these have been found capped thimbles, but with ends much more acutely conical than the stub-ended thimbles used today. Their tips were plainly smooth, the sides dimpled, and the rims encircled with plain bands.

That Saxon England was familiar with thimbles is proved by the existence of such words as byswain, meaning finger-guard, and gunniadur, or sewing-steel. These were bell-shaped sheaths of leather sewn up one side and fitted with stitched-on caps. Such thimbles were in use in fifteenth-century England when Occele in 1412 wrote of 'nedel and threde, & thimil of lethre'. Thimbles of this type are still used in outlying districts of Ireland; these sometimes find their way into curiosity shops, where they masquerade as Elizabethan.

Inventories of the fifteenth and sixteenth centuries make frequent reference to 'thimmels' or 'thimbils', but omit to state the material from which they were made. In 1494 they were priced at fourpence a dozen. Shops throughout the country appear to have stocked them in considerable numbers. The inventory of James Backhouse, a draper of Kirby-in-Lonsdale, taken in 1578, records 'Halfe a hundrethe of thimbles xvjd' and 'ij dosen of thimbles xij'—that is, fourpence and sixpence a dozen respectively. Possibly this trader's stock consisted of both leather and bronze or brass thimbles.

Thimbles of precious metals, gold, silver, and silver-gilt, were made by English silversmiths from the middle of the sixteenth century; earlier they appear to have been imported. These had cone-shaped tips and their rims in Elizabethan times might be engraved with posies (mottoes), a feature revived in the early eighteenth century and again in the mid-nineteenth century.

S. Daniell, writing in Taxes in England, records that 'the nobles [of Charles I] were profuse in their contribution of plate for the service of the king at Oxford, while on the parliamentary side, the subscriptions of silver offerings
included even such little personal articles as those that suggested the term "Thimble and Bodkin Army". There was a brisk demand for silver thimbles during the Cromwellian régime, these costing from one shilling and eightpence to two shillings each. The design included a plain narrow rim which might be inscribed with the name of the owner or giver or both. Not until after 1700 were gold or silver thimbles made with rims decorated in relief. The Harting accounts show that a gold thimble raised in a single piece from the plate and with an ornamented rim cost fifty shillings in 1714; ten years later a plain gold thimble cost twenty-two shillings.

Nearly all gold and silver thimbles in use before the eighteenth century were made in two sections, the hand-raised, domed tip with punched indentations occupying one-third of the thimble, and the remainder being rolled from the plate, vertically seamed, and decorated. Both seam and circular joint are almost invisible. In other examples the tip might be almost flat and inserted in a slightly tapering cylinder. Some gold and silver thimbles were in a single piece, being raised from the plate. A series of late eighteenth-century thimbles were made with iron caps, the remainder being of silver.

The band encircling the rim of the early eighteenth-century gold or silver thimble, if not left plain, was chased or engraved with scrolls, a cartouche enclosing a tiny crest or cypher, wreaths of flowers and foliage, or other motifs. A series of now rare thimbles made at the end of the eighteenth century were ornamented above their rims with wide bands of intricate filigree work, often enclosing an oval or shield-shaped panel upon which the owner's crest or cypher was engraved. The filigree band was worked separately from the cylindrical background of silver to which it was soldered. The upper portion of the thimble was indented.

The rims of other thimbles might be bordered with gems: gold thimbles might be set with precious stones. A late eighteenth-century toy consisted of a silver thimble that screwed over a tiny scent-bottle, the base of the latter being cut as a seal. With the nineteenth century there came a reversion to rim bands chased or engraved. Designs were now florid and closely spaced. A long series of mid-nineteenth-century thimbles was of the souvenir variety, the cylinder being decorated with well-known buildings such as St Paul's Cathedral, the Crystal Palace, London Bridge, the Tower, and dozens of a local character.

The collector of eighteenth-century gold or silver thimbles should also note that until the invention of the rose machine in about 1760, by which indenta-
Thimbles were impressed symmetrically, all indentations were hand-punched and in consequence displayed irregularities of placement. Between 1738 and 1790 gold and silver thimbles were exempt from hall-marking: in 1790 the exemption was withdrawn from silver.

Thimbles of painted enamel, with narrow rims of double-gilt metal, were made in South Staffordshire and Birmingham from about 1770. The tips only of such thimbles were indented. Some examples were fitted with brass caps in which indentations could be more strongly impressed than in the paper-thin copper used as a base for the enamel. The white enamel was decorated with flowers and other small motifs in coloured enamels, sometimes enclosed in gilt cartouches. Such thimbles might be accompanied by enamelled thimble-cases, their shape somewhat resembling nutmeg-graters.

Thimbles of bone china, strong and tough in comparison with the earlier soft-paste porcelain, were made from about 1825. Sides and top were usually indented. There might be a wide rim-encircled top and bottom with gilded lines to enclose a border of scroll-work and tiny motifs painted in enamels of two contrasting colours. But a tiny posy of flowers on each side of the thimble was a more frequent ornament. Such thimbles were glazed inside and out. China-thimbles were seldom marked, but examples have been noted bearing the Minton and Royal Worcester marks. Thimbles were also made of carved jade, ivory (usually with vertically ribbed rims), bone with hand-carved borders, mother-of-pearl encircled with a pair of gilt bands, and boxwood.

Presentation thimbles of the eighteenth and early nineteenth centuries were usually enclosed in small cases. Some egg-shaped cases made of precious metals contained compartments for thimble, needles, and pins. More usually cases were squarish in shape and covered with leather, shagreen being fashionable during the middle of the eighteenth century. Miniature caskets and trunks of silver and silver-gilt were made, some enriched with filigree in similar metal. In such work thimble and casket were in matching designs. Then came series of cases made of tortoise-shell and of ivory, the latter sometimes containing a thimble of the same material. Cases of mother-of-pearl and bone date from about 1820. The vase-shaped thimble-case turned from hardwood, with a screw cap, dates from about 1840.

The vast majority of thimbles, however, were inexpensively made of bronze or brass, although pewter thimbles are known to have been sold. These metal thimbles were dome-shaped, about half the length of present-day thimbles, with hand-punched indentations, except when cast. Until about 1600, cheap
thimbles might be of bronze or brass: afterwards they were almost entirely of brass. Until the end of the seventeenth century they were uncomfortably thick, being turned and bored from lengths of solid cast brass of appropriate diameter. They were afterwards hand-punched with indentations all over the surface.

Thimbles in cast brass were first made in England by John Lofting. In 1695 he obtained a patent, and, with several partners, set up a thimble-making works at Islington. The material used was old scrap or battery brass. The molten metal was poured into moulds prepared with red ochre and sand of a quality only then known to be found at Highgate. Each of the hollow castings essential for the making of thimbles required a centre of sand, known as a core, and supported in the mould so that the molten brass would flow around it.

Six gross of thimbles were cast at a time and seven boxes were dealt with each day, the daily output exceeding six thousand thimbles. When the castings had cooled they were removed from the mould and separated from each other with greased shears. Children were employed to remove the sand-cores from the thimbles, a pointed iron rod being used for the purpose. The thimbles were next placed in a tumbler barrel operated by horse-power to remove all traces of sand and smooth the surface. They were then smoothly bored and skinned in the lathe, after which the indentations were punched by hand. This method of thimble-making continued until the last decade of the eighteenth century, when cast thimbles were superseded by more efficient thimbles stamped from rolled brass plate, their surfaces dimpled by mechanical means. Thimbles are now made in five successive operations to facilitate the stretching of the pressed steel or other metal, which must be of even thickness.

Collectors will sometimes find heavy iron thimbles. These were known as ‘dames’ thimells’ and, according to the Century Dictionary, were ‘in constant use in the making of thimell-pie’ by the dames in charge of the small schools for boys and girls, which were so familiar a feature of British life until superseded by the provisions of the Education Bill of 1870. The dame, wearing her great iron thimble, tapped sharply and vigorously upon her pupils’ heads when she considered correction necessary. This was called thimell-pie making, and was much dreaded.

These and heavy brass thimbles had another use in so-called sporting circles, being used in the sharper’s game of thimbling. This game required three thimbles and a pea. The pea was placed beneath one of the three thimbles standing in a row. The sharper then challenged bystanders to guess which
thimble covered the pea, and to bet on their choice. Gay, in his *Trivia* of 1716, noted this game, and Hove a century later referred to it as 'that unfair game the thimble rig'.

Small drinking-vessels in thimble form, holding a dram of spirits, were used in eighteenth-century taverns and in nineteenth-century public-houses until about 1860. The collector will find the design in pewter and tinplate, the rounded top making it necessary for the drinker to hold it in his hand until he had emptied it, thus urging him to drink more quickly than he otherwise would. Hence the recognized term a thimbleful of liquor.
Floral illustration had its beginnings in England when medieval illustrators of illuminated manuscripts bordered their parchments with colourful flowers meticulously painted. The majority of these were painted by copyist monks working from pattern sheets, possessing little botanical knowledge, and intent only upon the ornamental aspect of their pages.

Through succeeding centuries techniques changed and flower-prints became widely popular, but despite their commercial success their producers never lost the early delight in flower forms and individualities—shared today by appreciative collectors of these comparatively numerous and inexpensive reminders of a more leisurely past. Inevitably there are pitfalls for the unwary, such as colour recently applied to old prints; but by knowing the names and styles to look for, the collector can build up a fascinating and highly decorative array of specimens.

With the invention of printing on paper, the pages of botanical books might be enlivened, sometimes in red, with crudely carved wood-cuts. Technical considerations required the use of rectangular blocks of pearwood, and botanical illustrations had necessarily to be designed to fit this shape. In such circumstances some study was needed to decipher exactly what flower the artist intended to picture.

Cutting technique gradually improved and the sixteenth century saw some excellent Continental flower-printing in which actual plants were faithfully copied. The beautiful impressions in a folio volume written by Leonhart Fuchs and published at Basle in 1542 display a distinct advance in the art of flower-printing. The plants were drawn from nature by Albrecht Meyer, the drawings reproduced in reverse on the wood blocks by Heinrich Fullmaurer, and the blocks cut by V. R. Speckle. Each cut, which was intended to be coloured by hand, occupied a folio page and was printed upon white paper of a quality not made in England until nearly two and a half centuries later.

Reduced copies of these wood-cuts were quickly pirated in other countries. In England they were used to illustrate Turner’s New Herball published during
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the early Elizabethan years. John Gerard's *Herball*, 1597, was also profusely illustrated with blocks borrowed from Continental sources, these in their turn having been pirated from Fuchs. An edition of Gerard issued in 1633 contains 2,677 blocks obtained from the stock of the celebrated Dutch printer C. Plantin. Gerard's *Herball* and John Parkinson's *Paradisus*, 1629, were for generations considered to be the finest of English herbals—the contemporary name for botanical volumes. Parkinson's volume was principally concerned with groups of florists' flowers shown together as full-page folio blocks. It may be mentioned in passing that late seventeenth-century editions of both Gerard's and Parkinson's works illustrated with wood-blocks were seen for sale in Charing Cross Road, London, during 1930, marked twenty-five shillings each. The English production of botanical wood-cuts appears to have been negligible, the majority appearing in herbals having been hired from Continental printers.

Floral illustrations from copper plates began to appear in botanical books from the middle of the eighteenth century. The French flower engravers improved upon the method, and by the end of the century had freed themselves of the limitations which had formerly cramped their art. Engravings were produced which to this day are considered patterns of perfect flower arrangements. These highly decorative prints are prized by collectors.

Just as English gardeners of the eighteenth century differed from their Continental confrères in garden treatment, so did botanical engravers differ in developing flower-prints, a hitherto neglected aspect of the engraver's art. A most important achievement in this connection was the invention in 1720 by James Christopher Le Blon of a process of colour-printing from metal plates. He named his productions 'printed paintings', pointing out that this three-colour process depended upon Sir Isaac Newton's theory that all visible objects could be represented by combining the three primary colours, red, yellow, and blue. Acting on this principle, he employed three plates, one for each colour, in addition to the key plate with dark grey or black ink. These he combined in a variety of ways, achieving pictorial effects hitherto deemed impossible. Strangely enough, probably because no record was kept of his method of purifying the colour pigments, the process was discontinued after Le Blon's death.

The first botanical prints known to have been produced by the Le Blon process were fifty-two 'mezzotints printed in colour' for John Martyn's *Historia Plantarum Rariorum* (1728–36) and published by the Society of Gardeners.
The excellent drawings, which still exist, were prepared by Jacob van Huysum and engraved in the Le Blon method by E. Kirkall. The results were not very successful, the colours seldom being true to life and sometimes enlivened with water-colours. Foliage consistently appeared as a mossy green. Examples of these prints, which appear to have been issued singly, are now highly valued.

Although Martyn’s effort was a financial failure, there followed in rapid succession, until early in the nineteenth century, other botanical works more satisfactorily illustrated with hand-coloured prints. Some of these were important milestones in the world of horticulture. The first was *Catalogus Plantarum* published in 1730 by the newly established Society of Gardeners. Bound all together at the end of the volume are twenty-one coloured plates by Jacob van Huysum, some of which display several flower illustrations. The majority were etched by H. Fletcher; others were engraved by Kirkall using the Le Blon process.

In the same year Robert Furber, who styled himself ‘a gardener over against Hide Park Gate at Kensington’, made gardening history by publishing the first illustrated seed catalogue in England. *Twelve Months of Flowers* was an elaborate folio volume produced in the grand manner and containing twelve very handsome plates engraved by Henry Fletcher after paintings by Peter Casteels and ‘coloured to life’. The imposing frontispiece has a wide border of botanical specimens in colour enclosing a long list of eminent subscribers, including the Prince of Wales and a few dozen peeresses.

*Twelve Months of Flowers* is not only a record of eighteenth-century flowers, but the plates also inaugurated a new type of flower arrangement in England, although for more than thirty years fashionable in France. Flowers from Furber’s nursery stock and characteristic of the twelve months of the year are displayed, arranged in as many different silver-gilt bowls elaborately embossed. Among the four hundred flowers listed and illustrated are some twenty-five which Furber had just received from America and was offering for sale for the first time. In each picture the flowers are all numbered and listed in a panel below. No text accompanied these prints, which spoke eloquently on their own behalf. To collectors more than two centuries later this folio set of flower-prints holds greater appeal than most others of the eighteenth century.

Reduced versions of Furber’s flower-prints were popular for more than three decades, being pirated several times before 1760 by publishers anxious
to exploit their decorative value: there was no adequate copyright protection in those days and none at all before 1736. Furber himself issued a reduced version in 1732 under the title of The Flower Garden Displayed: 400 Curious Representations of Beautiful Flowers. This was offered 'not only to the Curious in Gardening, but the Prints likewise for Painters, Carvers, Japaners, etc., also for the Ladies, as patterns for Working, and Painting in Water Colours; or Furniture for the Closet'. Each plate in this slender volume is accompanied by about eight pages of descriptive letterpress. They are, however, extremely poorly engraved and the colours could not have been more carelessly applied, in many instances bearing no resemblance to those in the original folio volume. Nevertheless, these prints are highly valued.

The name of Philip Miller is closely associated with that of Robert Furber. Miller was the greatest horticulturist of his day and an excellent botanist, always to be remembered as the author of the monumental Gardener's Dictionary, first published in 1724. One of the later editions is illustrated from three hundred copper plates, some drawn by G. D. Ehret. Inexperienced collectors should note that illustrations in copies of this volume have been hand-painted in recent years and sold at greatly enhanced prices.

During the late 1730s, Elizabeth Blackwell wrote A Curious Herbal containing five hundred plates drawn, etched, and coloured by herself. As the plates were intended for colouring by hand, the etching was reduced to an outline with a minimum of shading. Uncoloured copies of the book were issued and these are now to be found embelished with modern water-colours.

When Charles Linnaeus in 1735 published his Systema Naturae, in which he presented a new principle of classification and system of nomenclature, he influenced the entire world of natural science, including botanical artists. The latter, from 1740, endeavoured to make botanical illustrations as scientifically accurate as possible, as well as handsome to the eye.

G. D. Ehret, who for a short period was associated with the great Linnaeus himself, produced extremely beautiful and accurate work, all signed and dated. Much of his painted work was on vellum, and instead of the transparent wash so beloved of his contemporaries he preferred to use body-colour. This genius among botanical artists engraved some of his drawings, notably for a series of travel books, such as Pococke's Description of the East (1743-45); P. Browne's Civil and Natural History of Jamaica; G. Hughes's History of Barbadoes (1750); P. Russell's Natural History of Aleppo (1756). His most impressive engravings are to be found in his own work, Plantae et Papilliones Rariores
(1748–1749). The colour work here is carried out with infinite care and patience.

A survey of the beauty and variety of flowers that bloomed in English gardens during the latter part of the eighteenth century is shown in the remarkably decorative portrayals by John Edwards in his British Herbal. The first edition, published in 1770, contained ‘the most beautiful and exotic flowers and useful medicinal plants which blow in our English gardens’, illustrated in a collection of one hundred coloured plates. Most of these prints, which included roses, irises, anemones, pansies, daffodils, sunflowers, hollyhocks, and primulas, were drawn and engraved by Edwards: others bear the name of J. Fougeron as engraver.

Later in the century, between 1783 and 1795, Edwards produced another splendid work: A Collection of Flowers, drawn after Nature, and disposed in an Ornamental and Picturesque Manner. This folio contains eighty magnificent plates unaccompanied by text, drawn and engraved by Edwards and splendidly painted. Because of the excellence of his composition and the simplicity with which the designs were executed, John Edwards is considered one of the most collectable of English flower-print makers.

A contemporary of Edwards celebrated for his encouragement of exotic botany was Dr Robert John Thornton. Not only did he grow beautiful flowers, but he lectured on medical botany at Guy’s Hospital, London, and published some delightfully illustrated volumes. The most important of these was The Temple of Flora, containing thirty beautiful plates produced on a larger scale than anything previously engraved as English botanical illustrations. Thornton himself was responsible for one of the pictures, perhaps the best known, a group of roses against a landscape background. For the remainder he employed a series of capable botanical artists—Peter Henderson, Philip Reinagle, Abraham Pether, and Sydenham Edwards. More than a dozen eminent engravers, such as J. Ward, R. Earlam, and R. Dunkarton in mezzotint, and T. Sutherland and J. C. Stadler in aquatint, made the copper plates. Mezzotints are rarely found illustrating botanical subjects, Earlam being one of the finest exponents in this work. He is specially known for his flower groups after Jan van Huysum and J. van Os.

The flowers were all set against natural backgrounds. Thornton himself explained this in his introduction: ‘Thus in the night-blowing cereus you have the moon playing on the dimpled water, and the turret-clock points XII, the hour at night when this flower is at its full expanse. . . .’ The set of original
paintings, valued by Thornton at £5,000, has now vanished. Many unbound sets of these prints were issued.

Thornton achieved his desire in making the plates for his Temple of Flora the most magnificent that had ever illustrated Linnaeus' sexual system, but, unfortunately, printing them in colour was so costly, at a time when the market was flooded with botanical works, that his venture resulted in financial failure.

William Curtis, an outstanding botanist of his period, was the founder of a publication which he quaintly titled Botanical Magazine; or the Flower-Garden Displayed: in which the most Ornamental Foreign Plants cultivated in the Open Ground, the Green-House, and the Stove are accurately represented in their natural Colours. Published from the Botanic Garden, Lambeth Marsh, this was the first botanical periodical. Issued in monthly numbers, each costing one shilling and containing three hand-coloured plates, with comprehensive descriptions occupying the whole of the opposite page, the Botanical Magazine met with the approval not only of botanists but of the laity. The journal has appeared regularly ever since its foundation in 1787 and is today published by the Royal Horticultural Society.

Curtis resolved that the illustrations in his magazine should be of a consistently high quality. The majority of the plates in the volumes which he edited until his death in 1799 were designed and drawn by his close associate, Sydenham T. Edwards, with T. Sansom as engraver. There has been much speculation as to the origin of unsigned plates in the early numbers. The general opinion is that they were the work of Curtis himself; others suggest that they might have been done by that excellent but little-known botanical artist Phillipa Crabtree, who produced some very accurate and beautiful drawings during the late years of the eighteenth century.

James Sowerby, whose name appears 'del. et sculp.' on some seventy prints in the first four volumes, became renowned for his botanical drawings. He was responsible for 2,500 drawings in the thirty-six volumes of English Botany (1790–1814). Sowerby's original drawings for this great work are preserved in the Natural History Museum.

Because of improved methods in transport, exotics came pouring into English gardens from every climate throughout the Georgian era. Many excellent records were kept of these, some being published in colour-illustrated volumes. An ambitious effort was made by Henry C. Andrews between 1797 and 1812, when he issued the ten-volume work The Botanist's Repository
for New and rare plants, containing coloured figures of such plants as have not hitherto appeared in any similar publication. Each volume was accompanied by more than seventy coloured plates. From the total of more than seven hundred prints it is possible to get an excellent idea of the exotics introduced into English gardens during the eighteenth century. Andrews often painted, engraved, coloured, and described his prints, which were also sold singly.

Towards the end of the century varieties of certain flowers had become so numerous that entire volumes were devoted to single plants. Henry Andrews published Coloured Engravings of Heaths: the Drawings Taken from Living Plants in the Collection of the Marquis of Blandford. In this book, begun in 1784 and dated 1802, multicoloured blossoms, red, yellow, white, lavender, and pink, are pleasingly represented in three hundred hand-coloured etchings.

Andrews was also responsible for a monograph, The Genus Geranium (1802-1830): the tones of the colours are much softer than those used in the Repository. His best-known work was A Monograph of the Genus Rosa (1805-28), now valued at more than £350. The decorative drawings were carefully made, but the colours are deep and strident. In some of the plates, however, the lines are so heavy that they tend to spoil the beauty of the flowers.

Mary Lawrance in 1799 had already published A Collection of Roses from Nature, a folio monograph containing ninety hand-coloured etchings. On the title-page Miss Lawrance describes herself as a teacher of botanical drawing at No. 86 Queen Anne Street East, Portland Place. Like her fellow craftsmen John Edwards and Henry Andrews, she was artist and etcher as well as publisher. While her plates are very decorative, critics have condemned them as botanically inaccurate.

Another woman artist celebrated in the botanical field was Mrs Edward Bury, of Liverpool. She produced a colour-plate folio called Selection of Hexandrean Plants (1831-34), for which R. Havell prepared fine-grained aquatints, partly printed in colour and hand-touched. At the same time flourished Mrs Withers, flower-painter-in-ordinary to Queen Adelaide, who held a conspicuous place among botanical illustrators.

Some collectors specialize in prints in which the artist has displayed his flowers in bouquet arrangements. The print-sellers Sayer and Bowles added a few examples of bouquet arrangements to the rather meagre output of such prints in the eighteenth century. When, however, in the early nineteenth century the fashion for drawing and painting flowers in water-colours was
absorbing the attention of young ladies, more prints displaying flower arrangements began to appear, Ackermann published *A Series of Thirty Studies from Nature* in 1812 and the very scarce work of Gartside furnished a few more. The Green brothers used mezzotint for their half-dozen plates of delicate bouquets. There is a delightful lithograph by Clara Maria Pope showing moss roses in a blue and white vase, published in 1832 by Samuel Curtis. Some of Mrs Pope's work appears also in * Beauties of Flora* by Curtis, and she illustrated his monograph *The Genus Camellia* in 1819.

Botanical illustrators for whose work collectors should search include William King, Frederick Nodder, John Hill, Robert Sweet, Benjamin Maund, George Lodigges, William Baxter, and many others.

Collectors of botanical prints should have some knowledge of the various graphic processes exemplified. Etching and engraving were most frequently used and are to be found combined on a single plate. Stipple is scarcely represented at all in botanical illustration, on account of the high degree of skill required in its efficient accomplishment. It was occasionally used by William Hooker, official artist to the Horticultural Society in the early nineteenth century. Hooker's work is noted for a particularly obnoxious shade of green. Another interesting feature of his work is the use of an irregular network of lines for the more heavily shaded parts.

Lithography was little used for botanical work: William Roscoe's *Monandreae Plants* (1824–28), Knowles and Westcott in *Floral Cabinet* (1837), and J. Bateman in *Orchidaceae of Mexico and Guatemala* (1837–41) were among the few who used this process. With other processes employed in botanical illustrations, lithography was superseded from the late 1830s by steel engraving. Walter Hood Fitch, the eminent Victorian botanical artist, is, however, notable for his lithographs made from his own drawings. They are characterized by the skill with which he seized the essential features of his plants, his keen sense of form, and his method of arranging his subject within the rectangular borders of the print in a manner reminiscent of early woodcuts.

The art of wood-engraving, as distinct from wood-cutting, was developed towards the end of the eighteenth century by Thomas Bewick: he demonstrated the potentialities of the new art and was capable of reproducing detail as finely as was possible with copper-plate engraving and at much less cost. Bewick engraved wood-blocks from John Henderson's drawings for Thornton's *New Family Herbal* (1810). The process appears to have lapsed in
connection with botanical illustration until 1830, when there came a number of very capable exponents in this medium.

The artists employed in colouring botanical prints necessarily possessed a quick eye for detail and accurate colour tints. They usually worked for the printer on his premises, using his tools and materials. An eighteenth-century text-book, in discussing such work, notes that 'the colouring of the prints is performed either by spreading opaque colours so thinly on the subject that the full effect of the printing may appear under them, or by using transparent colours, which stain the ground and dry away without leaving any opaque body; this last method is called washing'.

The hand-made paper upon which the engraving was printed for subsequent enrichment with water-colours was known as cartoon paper. It was hand-glazed to secure the impression of the finer lines and touches, and to enable colour-washes to be thin and smooth without obliterating the printed design. Before colour was applied, the cartoon paper was primed with isinglass size prepared with sugar candy or honey. When common paper was used, as would be the case with the less expensive book illustrations, it was made stronger and more fitted to take the water-colours by smoothly brushing the back with starch boiled in water to a moderate consistency, and a little isinglass added.

Sixteen colours were at the disposal of the commercial print painters, classed into three groups—opaque, semi-transparent, and transparent. The first two groups were tempered with isinglass size before being applied to the paper: colours of the third group were mixed with water. The colours used were:

Opaque: vermilion, verditer (blue), ultramarine, turpeth mineral (a yellow made from a mercury preparation).

Semi-transparent: carmine, bistre, gall-stone (yellow), lake, Prussian blue.

Transparent: red ink, Indian ink, brown from liquorice, purple from logwood, gamboge, yellow berry wash, blue from litmus, green from verdigris in vinegar.

Close inspection of genuine prints in a museum or reference library will enable a collector to judge if the colours named have been exceeded in a recently acquired print. In such a case it will have been painted in recent years in order to sell at a fictitious value. In fine prints painted in an artist's studio, however, the colour palette might be considerably enlarged by the use of expensive paints.
100. March, from *Twelve Months of Flowers*, by Robert Furber, 1730. Thirty-four spring flowers are listed below this illustration to the first English seed catalogue. *In the Natural History Museum, London.*
101 (above, left). *Mimosa grandiflora* - large-flowering sensitive plant - from Thornton's *Temple of Flora* painted by Reinagle and engraved by Stadler, complete with humming birds and astonished aborigine.

102 (above). *Geranium tricuspidatum* by Henry C. Edwards, 1805, an artist whose distinctive style and striking colours are now much sought after by collectors. *In the Natural History Museum, London.*

103. A delightful group of *compositae*, drawn by Henry N. Humphreys, from Mrs Loudon's *British Wild Flowers*, 1843. *In the Natural History Museum, London.*

105 (above, right). Carnations, from a painting by Mrs Clara Pope reproduced in * Beauties of Flora*, 1806–20, by the nurseryman Samuel Curtis, a rival to Thornton's *Temple of Flora*, even larger and equally uneconomic. *In the Natural History Museum, London.*

107. A knave of clubs, part of a pack found in the covers of an old book in 1841. This pack has been ascribed to the fifteenth century. The outlines are from wood blocks and the colours stencilled. In the British Museum.

108-111. Marlborough's victories, the disputes regarding the Spanish succession, and other events in the reign of Queen Anne, are elaborated on this pack, which can be dated exactly to 1707-8. In the Victoria and Albert Museum.

112-115. Examples from a pack dating to George III's reign, showing one of several unsuccessful attempts to change the conventional suit marks and court cards: here the four suits are pikes, topazes, clovers, and cups or chalices. In the Victoria and Albert Museum.
A number of now rare instruction books purporting to teach the art of botanical illustration were published during the early nineteenth century. Patrick Syme and Edward Pretty issued such works with coloured illustrations in 1810. Among the more notable of such books published during the next twenty-five years were George Brookshaw's *A New Treatise on Flower Painting*, 1816, and James Andrews's *Lessons in Flower Painting*, 1835.
EVER since the first playing-cards were laid upon the table they have provided an absorbing pastime for all classes of people. Collectors with a love of social history and the patience to hunt down the rarer but by no means prohibitively expensive specimens, will find illustrated on the faces of playing-cards the modes and manners of English life presented wholly with a view to contemporary appeal, with no thought of an appreciative posterity. Like dominoes and mah-jongg, playing-cards originated in China, probably during the eighth century, reaching Western Europe some time in the thirteenth century. Authorities generally give the date as 1392, but the manuscripts of Pipazzo di Sandro note their existence in Italy before 1299. In 1332 Alfonso XI, King of Castile, forbade the knights of his band to play at cards or dice, and in 1337 the Statutes of the Abbey of St Victor of Marseilles refer to parchment playing-cards. A typical pack might then contain at least seventy-eight cards, divided into suits of ten spot cards and four court cards each, together with a joker, and twenty-one emblematic cards known as atouts and resembling all manner of strange things from Cupid to Death. Suits of swords, cups, money, and staves represented four sections of society: military, church, merchant, and peasant. Makers of such packs are known to have been firmly established in London and other English towns by the end of the fourteenth century. These early packs were used for games much resembling chess; they are still used by fortune-tellers.

Early in the fifteenth century the pack of fifty-two cards was introduced into England from France. From their suits of clovers, squares, hearts, and pikes are derived present-day clubs, diamonds, hearts, and spades. Card-playing was simpler with such packs, and so enamoured became the working population that archery practice tended to be neglected. This occasioned Edward IV in 1480 to enact that no male between the ages of seven and sixty, unless of the noble or merchant class, might play at cards except at Christmas and then only in his master’s house and presence. This embargo on card-playing continued for half a century.
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High prices were paid for colourful packs with court cards designed and painted by artists formerly engaged in illuminating manuscripts. The skill of these artists established a treatment in playing-card design which has never been superseded. Gilded and painted in brilliant colours, these early cards of parchment or varnish-stiffened fabric are the loveliest and most prized of all. The art grew up alongside the painting of religious portraits, and the 'devil's paste boards' often emanated from the same studios. A number of these artists later became portrait miniaturists.

Costumes on English court-cards became more or less stabilized early in the sixteenth century and have remained basically unchanged for about 450 years. The queen, wearing queer lappets over her ears, represents Elizabeth of York, wife of Henry VII and mother of Henry VIII—the original of the ermine-trimmed king ornamenting English playing-cards. No matter on which suit the queen is found she is always shown holding the White Rose of York, signifying that by her marriage the Wars of the Roses came to an end. The style of wearing the crown on the very back of the head was introduced by the mid-Elizabethan card-makers.

The knaves, with their flat caps, 'broade on the crowne like the battlements of a house', resemble figures shown in paintings of the period, and their 'striped stockings, red, greene and yallowe' are to be found in many contemporary wood-cuts. Why the knaves of hearts and spades are always in profile, while those of diamonds and clubs are full-faced has yet to be discovered. In a pack dated 1440 they are shown in exactly similar positions. A knave-valet in the sixteenth century was a son: only later did the word come to mean a rogue. The use of the word 'pack' is comparatively recent: Elizabethans referred to a pack as a bunch of cards, and during the following century it was known as a 'pair of cards'.

While exquisite craftsmanship might be lavished on a comparatively few packs of cards, a less discriminating public perforce used playing-cards produced less expensively by a process already practised for centuries in the East. During the Elizabethan period, when paper was becoming more common, playing-cards were printed by relief methods, the outlines of the various symbols being cut upon blocks of hardwood which were inked and stamped upon the cards. Spaces between the stamped outlines of court cards—then known as 'kings and coate cards'—were hand-coloured.

The intaglio method of printing court-card outlines from copper plates may be detected in some English playing-cards of the early seventeenth
century. Shop inventories of this period show that general traders stocked playing-cards at prices varying from 1₃d. to 2¼d. a pack. The 1585 inventory of Robert Lambe, of Newcastle, refers to 'xvij douzen of playing cards, of the blewe bore, at 2s. the douzen, 36s.' The wild boar, printed in blue, was the mark of a master card-maker of the period and was later registered with the Cardmakers’ Company.

So considerable were the profits on playing-cards that Edward D’Arcy, an Elizabethan courtier, persuaded the Queen, in consideration for an annual payment to her personal purse, to grant him a monopoly of the entire industry. But the master card-makers so vigorously resisted this illegal tax that they won the first decision ever made by the courts against a monopoly. James I, however, sold Sir Charles Conningsley a patent of monopoly by which he received 'five shillings upon every grosse of Playing Cards imported into this kingdom'.

The London card-makers were now a numerous body employing more than two thousand craftsmen, and in 1628, under the protection of a royal charter, they were incorporated into a guild known as The Master Wardens and Commonalty of the Mistery of the Makers of Playing Cards of the City of London. Only Company members were permitted to make playing-cards within a ten-mile radius of the City of London, and master card-makers protected their trade-marks by registering them with the Company. The charter was granted on condition that the King received two shillings on every gross of packs made and sealed, with an extra shilling for the 'Inspector of all Playing Cards' appointed to seal them. This tax was levied without the consent of Parliament.

The stencilling method of colouring court cards came into general use from about this period and continued until after 1830. The outlines of the court cards were printed from two pearwood blocks. One block was cut with two sets of four kings and four queens, together with two each of the knaves of clubs and spades. The second block was cut with ten each of knaves of hearts and diamonds. This arrangement was convenient because the figures on the first block were coloured red, yellow, blue, grey (a diluted blue), and black, while the figures in the second block contained no black. Five impressions of the king block were taken to each single one of the red knaves block. This gave court cards for ten packs. The pip cards had a printing-block for each suit, each containing the cards for two packs.

The colours were applied to the outlined court cards by means of paper
stencils stiffened by painting each side with several coats of oil paint. A separate stencil was required for each colour; these were made with a sharp-pointed knife by cutting out the spaces in which each colour was to be laid on.

After the cards had been illumined, each sheet was heated singly on a square, flat-topped stove, one sheet against each side and one on the top. As soon as the colours had dried and while the sheet was still warm, they were soaped on both sides with a three-inch-thick rubber made of old beaver hats. The sheets, still warm, were polished with a calender stone and then placed beneath a press to make them perfectly flat. They were afterwards cut into individual cards by means of a blade hinged to a bench.

Playing-cards decorated with copper-plate picture-engravings are now valued by collectors. The earliest of these ornate packs date from shortly after the restoration of the monarchy in 1660 and the fashion continued for two centuries. Although the cards were plain-backed, the face of each was so elaborately ornamented that the suit and value were restricted to a narrow strip across the top, and even this strip might include an arabic numeral in the centre relating to the picture below. Here were the forerunners of the modern comic strip, each card contributing an incident in some naïvely horrific tale, such as the Duke of Monmouth's rebellion or the Titus Oates plot. On some seventeenth-century packs the suits and numbers were tucked obscurely into a corner to allow more space for the pictorial prints, which might consist of any subject, from the crudest lampoon to instruction in trades, heraldry, music, geography, Latin, or the alphabet. By the end of the century the top left-hand corner of such an ornamented card might contain a miniature representation of an ordinary playing-card to denote its suit and value, still leaving the rest of the card for illustration. In diamond and heart suits these miniatures were coloured red.

The earliest pack of geographical cards appears to have been issued in 1665 by H. Winstanley of Lothbury: a complete set is in the British Museum. In this pack, hearts represent Europe, diamonds Asia, spades Africa, and clubs America. Packs illustrating the counties of England and Wales were issued in 1675, 1680, 1691, and 1699. Other seventeenth-century playing-cards which collectors look for include Richard Blome's heraldic pack of 1675; arms of English peers, 1686; arms of the nobility of Scotland, 1693; love mottoes, 1699, and a fortune-telling pack of 1665. The latter consists of fifty-two cards with two others of explanatory matter. In the upper left-hand corner of each card is the usual suit sign, and the cards in each suit are numbered I to XIII.
The cards bearing the odd numbers each bear a circle with signs of the zodiac upon them, the even-numbered cards each holding thirteen numbered answers. The process of telling the fortunes was very complicated, but such cards seem to have been issued from time to time during the next century.

A long series of historical playing-cards was issued during the late seventeenth and early eighteenth centuries, recording many important events in quaint engravings and accompanying captions. The printing on many of these cards appears blurred, so worn were the copper plates from use on many packs. Among the most elaborate of the historical series is a pack known as 'Marlborough's Victories', illustrating the story of the dispute concerning the Spanish succession and other events from 1700 until the end of 1706. Many of these show land and sea battles. Other packs in the series include the story of James II, issued in 1689, and the 'South Sea Bubble' pack, issued in 1720 by Carrington Bowles, of St Paul's Churchyard. Bowles was associated with many sets of playing-cards and printed fans, the ornament ranging from the lyrics and airs of Gay's Beggar's Opera, written in 1728, to various lively sets of fables and amatory verses illustrated with excellent mezzotint engravings.

The weekly journal Apollo, in 1708, advertised: 'Cards curiously Engraven on Copper-plates, wherein the Principal Rules of Vulgar Arithmetic are truly stated, that any Person of the meanest Capacity may arrive at a Competent Understanding of Accounts, by the perusal of them. Price 1s. 6d. per Pack. Proverb Cards Curiously Engraven on Copper-plates, with Figures representing the Proverbs to the Life. Price 1s. 6d. per Pack. All sold by W. Warter, & J. Lenthal, Stationers, at the Talbot near the Mitre Tavern, & J. Mayo, Stationer & Printer, over against Water-Lane in Fleet-Street: Likewise King Harry's & all other sorts.'

Collectors’ packs of the eighteenth century include 'Aesop's Fables', 1759; 'The Ruler of Europe', by Rowley & Company, 1769, and 'London Street Cries', after Wheatley’s engravings, 1795. In 1781 Rowley & Company issued playing-cards with the suits resembling those of the fifteenth century in which spades were replaced by blue pike-heads, clubs by green trefoils, and hearts by red chalices, and the diamonds were yellow and faceted. The court cards show the reigning monarchs of Great Britain, France, Spain, and Prussia.

In addition to the many educational packs issued throughout the eighteenth century, picture cards were published for children’s amusement from about 1780 until 1850, the most collectable being issued by John Wallis, Ludgate Street. These were chiefly devoted to stories of historical events, biographies
of celebrities, and fiction, some of it comic. Many of these hand-coloured cards are highly prized, such as some of those bearing the signature of Deighton and other well-known artists.

Ornamental packs consisting of what are now known as transformation cards were first issued in London during 1808. These reflected the coarseness of contemporary humour, while emphasizing the vividness of caricature at the period. The distinctive feature of transformation cards is the incorporation of the requisite number of suit signs as prominent features in each picture. Hearts might serve as men’s hats, or their roseate faces; diamonds as parts of ladies’ dress; clubs and spades as carved motifs in Gothic furniture.

Making transformation cards became a fashionable pastime, pen and ink being used to convert the suit signs of an ordinary pack into designs having topical or personal associations. A transformation pack drawn by Count d’Orsay for Lady Blessington illustrates contemporary scenes, such as the six of diamonds being incorporated in a circus spectacle showing an equilibrist taking tea on the tightrope. It is difficult for the collector to discover if transformation packs have been recently transformed: sometimes the artist unknowingly uses packs of an obviously later date for the purpose, although printed transformation cards were issued as late as 1881 by Reynolds & Sons, the artist being H. Chapman.

Transformation cards must have been difficult in play, the pips being obscured by their gay surroundings—but then, even the plain cards of less than a century ago now seem difficult to play with, lacking even such refinement as corner indices. Figure indices and rounded corners date from 1862; double-headed court cards from 1867.

These and other pictorial cards were seldom, if ever, used by regular card-players; packs of purely utilitarian stencilled cards were issued in tens of thousands each year, and when in 1830 Thomas De La Rue perfected a process for printing playing-cards by letterpress methods from blocks with oil colours their production was immeasurably increased. This process revolutionized the manufacture of playing-cards.

The court cards were printed first in a blue outline, followed by yellow, flesh colour, red, and black printings; the pip cards required one printing only in red or black. Sheets of hard-sized white paper were used, accommodating twenty cards on each. When dry, these were piled alternately with the plain white sheets intended to form the card backs. Beside these was placed a pile of litteris, each consisting of two sheets of cartridge paper pasted together,
pressed, and dried. The card-paster took a sheet of white backing-paper from the first pile, brushed it with a strong adhesive of flour, gelatine, and water, and laid upon it a literis sheet. The upper side of this was then pasted. He then took two sheets from the first pile—a printed one and a plain one—and laid them in place on the wet literis. This resulted in one complete sheet of cards with a white top sheet ready for the next pasting. So the process continued until a pile was completed. The pile was then placed in a screw press to squeeze out superfluous paste.

Until about 1840 the backs of playing-cards were, with few exceptions, quite plain, the surface of the hand-made paper being rough and easily soiled. Cards with smooth, enamel-finished backs, difficult to mark, appeared early in the reign of William IV. These were coated with a mixture of china clay, zinc oxide, barytas, gelatine, and colour, then glazed by passing them between polished steel calender rollers. Not until 1840 were the backs of English playing-cards ornamented with intricate patterns, although such decoration had been patented by John Berkenhout in 1767.

Although these plain cards of earlier centuries possess none of the pictorial aids to dating, it is still possible for the collector to place them in chronological sequence. Here the all-important card is the ace of spades, for between 1712 and 1862 this card was printed with a duty mark indicating that tax had been paid. The changes in the reigning monarchs and in the amount of the tax together form an accurate guide for the collector. No duty, of course, was payable on children's cards such as arithmetical and other educational games.

An Act of Parliament placed a duty of sixpence on each pack of playing-cards issued from 1711. Because of widespread evasion, however, the government found it necessary to seal and stamp each wrapper and 'to mark one card of each pack on the spotted or printed side' as indication that duty had been paid. This was carried out by the Commissioner for the Stamp Duties on 'Vellum, Parchment and Paper', from August 1712. The card selected for marking was the ace of spades, and until 1714 this was impressed in red ink with the royal monogram AR surmounted by a crown. After the accession of George I the monogram GR was used, this mark being stamped in red until 1765. The red ink on many of these early Georgian marks has faded, making them difficult to decipher. The duty was increased to one shilling in 1756. Cards for export were now packed in a distinctive wrapper and one card in each pack was stamped with a special export mark.

Illicit packs were issued in large numbers and, of course, these were un-
stamped. It became a felony, punishable by death, to counterfeit or forge the seal indicating that duty had been paid. Early in the reign of George III an engraver named Harding was executed for engraving a duty ace of spades.

This duty ace came into use from 1765. Playing-card makers were required to send to the Commissioners for Stamp Duties suitable paper upon which the aces were then printed. In the specially designed duty ace the spade was surrounded by a garter wreathed with laurels at the sides, surmounted by a crown, with the motto ‘Dieu et mon Droit’ on a ribbon below. The crown was flanked on the left by the letters ‘GIII’ and on the right by ‘Rex’. On these cards there is no statement as to the amount of duty: the possession of the ace of spades itself indicated that sixpence duty had been paid, the remaining sixpence being levied on the wrapper, which was sent, already printed, to the Commissioners for over-stamping in red.

The duty on playing-cards was raised to one shilling and sixpence in 1776, the ace now being surmounted by the words ‘Sixpence Add Duty’. When the tax was further increased to two shillings in 1789, the extra levy was shown by printing ‘Sixpence’ on the left side of the duty ace, and ‘Add Duty’ to the right. When the duty reached half-a-crown in 1801 a further ‘Add Duty Sixpence’ was printed below the ace, making a total of three indications of sixpenny tax increases.

In 1815 a less clumsy method of denoting increased duty was belatedly devised. The duty continued at half-a-crown and the same ace was used. The wording, however, was changed to ‘Duty’ at the top, ‘One Shilling’ to the left, and ‘Sixpence’ to the right. The remaining shilling was made up by two sixpenny stamps embossed on the wrapper, one at the front, the other at the back. The ace itself was no longer deemed as having a sixpenny duty value. The style of lettering differed from that used from 1765 to 1815. Ace and inscription remained unaltered from 1820 to 1828, but with the addition of the lettering ‘GIII’ or ‘GIV’. The embossing of two sixpenny stamps on the wrapper continued.

When the duty on playing-cards was lowered to one shilling in 1828, a new duty ace was designed by the Commission. A mass of intricate flourishes, this at once became known as ‘Old Frizzle’. The ace of spades itself now displayed the royal heraldic quarterings, supported by a lion and a unicorn, and was surmounted by the words ‘Duty One Shilling’. When in 1862 the duty was reduced to threepence, it was levied on the wrapper only: there was thus no duty ace, but playing-card makers continued to produce elaborately designed
aces of spades in which their names and trade-marks were incorporated. Some late nineteenth- and early twentieth-century aces carry the words 'Duty Three Pence When Used in Great Britain and Ireland'.

To some collectors the most fascinating discoveries of all are those that can no longer be regarded as playing-cards at all, having been cut into four by some casual Georgian and their plain white backs used as impromptu visiting-cards. There is no knowing what illustrious name such a card may bear. Several such cards were found during house repairs in London's Soho in the 1920s, one being inscribed with the signature of Sir Isaac Newton.

119-121. Typical court cards from a pack dating to about 1810. The outlines are from wood-cuts and the colouring has been added by stencils. In the Victoria and Albert Museum.
122. An elaborate early Victorian paper-lace valentine. The oval panel is of aerophane to which hand-coloured designs are fixed. The inner panel of paper-lace is pasted upon satin which is bordered by more fragile lacework. Inside is inscribed 'Affection's offering at the Altar of Love'. In the author's collection.
XXIII

Valentines

A sparkling flavour of romance, an intriguing tang of impetuous daring, the irony of an alliance between pagan god and a Christian saint—even today the collector of old valentines recaptures something of the delights associated with this long-neglected festival.

In pagan Rome, February 14 was a day of festival, the ceremonies including the choosing of partners for the fun, girls and youths being paired by lot. When the Christian Church became established the celebrations took on a Christian character in honour of St Valentine, who was reputed to have been martyred upon that day. A church was dedicated to him, a gate was named after him, and the old pagan February festival kept in his name.

Choosing a valentine is not, therefore, merely a custom of Victorian days. It has come to us through the centuries, an innocent, homely festival, when gifts and trinkets might be given and verses interchanged. Chaucer and the Elizabethans sang of it and diarists often mention its expense.

The collecting and dating of valentines is a fashionable pastime. Some collectors incline to class those lovely ancient madrigals of Charles d’Orléans as the very first, while others maintain that the earliest genuine bit of paper poesy was the one Samuel Pepys records in his Diary on February 14, 1667: ‘This morning come up to my wife’s bedside, I being up dressing myself, little Will Mercer to be her Valentine; and brought her name writ upon blue paper in gold letters, done by himself, very pretty; and we were both well pleased with it’. Pepys also mentions that his valentine to his wife cost him five pounds.

Love-tokens made of vellum were known as ‘valentine pieces’ during the Queen Anne period. Constructed for complex folding to defy prying eyes, they were decorated either with minute cut-work in paper of a contrasting colour or painted with birds, flowers, and hearts in brilliant hues. Anton Mauerl (1672–1737), who worked in London from 1699 to 1710, made some of the most exquisitely decorative cut-work papers intended for gift purposes.
Towards the middle of the eighteenth century, valentine pieces began to be replaced by love-letters in copperplate handwriting. These were quill-inscribed on folded sheets with head-pieces of suitable hand-painted pictures, such as a pair of lovers standing at a stile, or emulating Romeo and Juliet in the balcony scene. During the 1750s and 1760s, the couple would be dressed in the style of the Chelsea and Derby figures so much favoured in the porcelain of that period. Valentine-making had not yet become commercialized, the sending of a love-token being indicative of an elegant education.

Valentines were first displayed in the windows of stationers' shops during 1761, the coronation year of George III. These were sheets of music enriched with hand-coloured pictures and songs. Soon they were joined by plain, folded sheets of flimsy hand-made paper, the centre of the front page being enriched with an appropriate design, such as a winged heart or a posy with verses above and below, printed in copperplate. The sender inscribed a message upon the inner leaf, using the old script, ancient spelling, and unexpected capitals of bygone days. An example dated 1764 now in the British Museum begins, 'Dearest Fascinating Being, A willing captive I have been to your matchless Charms and Graces', and ends 'your devoted Love'.

Designs became progressively larger, more picturesque, and of finer craftsmanship during the remainder of the century. The collector will occasionally find a signed valentine belonging to this period, such as 'The Sailor's Farewell' engraved in bistre and inscribed 'F. Bartolozzi, R.A.' The paper used by the early valentine-makers often has a date incorporated in the water-mark.

Meticulous scissor- or knife-cut valentines returned by 1765, lacy hearts pierced by arrows being set against black or coloured backgrounds. A personal valentine cut by Pamela Wainwright in 1773 consists of a white paper disc, six inches in diameter, adorned with eight cut-out hearts. Written in the centre is the familiar verse beginning 'The rose is red', with the sentiment 'Hopping, my dear, you will be mine', inscribed below. Pin-pricked valentines of the same period are works of infinite delicacy.

From the early years of the nineteenth century the manufacture of valentines became an established trade rather than a stationers' seasonal side-line or a young ladies' amusement. An ever-increasing number of workers, chiefly women, found permanent employment, and by the time of the Great Exhibition a considerable trade was carried on with the Colonies and America. Eugene Rimmel, of the Strand, London, estimated in 1875 that there were ten thousand full-time valentine workers in England. At this time Messrs Goode
Brothers, of Clerkenwell Green, were spending each year on artificial flowers £50,000, lace paper £3,500, satin £3,000, and perfumes £2,000.

The lace-bordered valentine made its bow in about 1800 in the form of a card having a narrow, unpierced, hand-embossed border. Central designs were etched, aquatinted or lithographed, and over-coloured by hand. The design contained a space in which the sender could write an appropriate verse, the reverse being used for a more personal and affectionate message. The earliest maker of embossed valentines was H. Dobbs, 8 New Bridge Street, London. The name is to be found impressed in the design.

Embossed borders were first pierced in about 1810, but they still remained narrow. During the next twenty-five years, as manufacturing processes were improved, lace borders gradually widened until the most delicate and expensive examples were two inches or more wide. Rare old lace was copied with exactness, those made between 1840 and 1860 being the most fascinating of all. Queen Victoria used lace-embossed folders supplied by Dobbs, upon the front of which were printed state banquet menus and royal command programmes of concerts and other entertainments given at Buckingham Palace and Windsor. These, like contemporary valentines, had the lace-work enriched with touches of gold.

Valentines of this type were at first decorated with sprays of colourful hand-painted flowers. Then came the vogue for satin insertions as backgrounds for the display of central ornaments. The satin was pasted over the unembossed area of the card. To this were attached figures such as ladies in crinolines, amoretti, doves, wedding coaches, birds’ nests, and a hundred other trifles which might be expressed in rice-paper, velvet, satin, feathers, or any other medium that apparently came to the notice of the designer. Some of the materials used from about 1840 were velvet, plush, net, spun glass, dried flowers, skeleton leaves, shells, seaweeds—even stuffed birds.

A favourite series of motifs for more than a quarter of a century were figures composed of busts and arms cut from fashion-plates, and dresses or rice-paper, with delicately painted faces. Applied motifs, hand-punched with dies on a lead block and afterwards coloured, also ornamented satin backgrounds. An experienced worker could ‘stick’ four hundred of these tiny motifs in an hour. Some excellent examples with embossed borders in gold, silver, or colours were issued by W. Windsor, who in 1840 signed his valentines ‘cardmaker, Vineyard Walk, Clerkenwell’, from 1844 as ‘Book and Print Seller’, and from 1860 as ‘enamelled card manufacturer’.
Aerophane, a semi-transparent fabric resembling thin crêpe, was used to produce a softening effect over some decorative motifs. Sometimes only a central motif was veiled in this way, and it was used to mellow brilliant backgrounds. Usually a motif or inscription was applied to the aerophane itself. It was also used to produce the impression of clouds. A scent-sachet, generally impregnated with patchouli, the favourite perfume of the mid-Victorian, frequently accompanied valentines during that period. Other scents, less frequently used, were lavender, orris, and the tonka bean. The sachet was enclosed in a silk or satin cover, itself within one of lacy paper suitably embellished and inscribed. This type was a speciality of Rimmel, who made some of the most elaborate and costly valentines.

The Dobbs family was perhaps the most prolific maker of fine lace valentines: a collection of their designs would run into more than two thousand items. The name is generally impressed at the foot of the design or upon some scroll or leaf in the embossment. It is possible to approximate their date by the style of the firm: H. Dobbs, 1803–16; Dobbs & Company, 1816–38; H. Dobbs & Company, 1838–46; Dobbs & Bailey, 1846–51; then Dobbs & Kidd, 134 Fleet Street and 13 Soho Square.

The signature of Rock & Company is embossed upon a very fine series of giant valentines with wide lace borders surrounding an embossed flower painted in natural colours, the botanical name being inscribed beneath.

The lace valentines of Joseph Mansell, a licensee of George Baxter, display a feeling of delicacy absent in the work of most of his contemporaries. Many of his fragile lace borders are outlined in gold, red, blue, and green, and sometimes further enlivened with coloured backgrounds, usually gold. This style was extensively copied by provincial valentine-makers after 1860: Mansell productions bear the name printed in beige. Of the coloured wax flowers and cupids which decorate many boxed valentines, few reach such a high quality of craftsmanship as those bearing Mansell’s name. He was also responsible for the very attractive series inspired by the work of William Morris, resembling old illuminated manuscripts.

Lace edgings for valentines and other purposes were embossed by heavy presses worked by a manually-operated horizontal flywheel at the top. The press was sunk into the ground so that the embossing tools were at floor level: a small boy standing in a pit placed each sheet of paper between the tools and removed it after embossment. The sheet was then ‘laced’ by being placed face-downward on the die from which it had been stamped. The raised portions
were then filed away by means of a broad, flat steel covered with glass-paper. From 1865 a machine using steam-heated tools produced open lacework with one pressing. The paper most suited to this work was imported from Augsburg, Germany, one of the earliest centres of valentine-making in Europe. Ordinary card or paper was difficult to lace.

Lithographed borders date from the last few years of the eighteenth century and were continued on valentines for half a century. A popular valentine with a delicately lithographed floral border, doves and cupids in the corners, and a true lovers’ knot surrounded by hearts and classical figures, was first published in 1803. The verses, which vary, are always quaintly amusing. The first few lines of one such valentine read:

_On February the thirteenth day_
_My Valentine I drew,_
_When everyone did choose his Love_
_My choice it fell on you._

Lithographed borders issued between 1830 and 1850 were composed of delicate floral motifs entwined with ivy and festooned with garlands. Those enclosing hand-coloured engravings signed by J. Murray are well worth collecting. Contemporary with these were locally printed valentines in black and white on flimsy paper. These were produced from copper plates hired from Kendrew of York, who had a fresh selection available each year. Valentines from these plates were issued in large numbers to working-class customers on account of the low prices at which they could be sold.

Flower-cage valentines enjoyed a considerable vogue from about 1820. These fascinating trifles were introduced from France on single cards, but in London they were made in folding double sheets. The flower-cage was a central posy of highly coloured flowers, etched and hand-painted upon very thin, tough paper, then cleverly cut in cobweb work, and invisibly attached to a card or folder. A silk or woollen thread hung from the central flower: when this was pulled the posy was converted into a cage disclosing to view some lover-like device such as cupid, heart and arrow, or a pair of doves painted upon the folder. Even a tiny painted mirror might be fixed there.

Valentines with pocket-centres were introduced shortly after the flower-cage. The pocket, when unfolded, disclosed to view a tiny gift or a valentine message. These were hand-decorated with conventional motifs in vivid colours. Introduced at the same time, and made until about 1830, were valentines cut from a square of paper, first folded, the motifs then snipped with
scissors, and finally coloured. One example dated 1822 has a centre composed of red and yellow hearts, bordered with bright blue and orange flowers, the whole set in a crimson diamond.

Valentines decorated with gold bronze were introduced by De La Rue shortly before 1835 and had a considerable vogue during the 1840s. The design was lithographed in yellow, then lightly varnished, and metallic bronze powder in various colours sprinkled upon it while still tacky. The border was elaborately patterned in gold bronze. This firm also produced some fine embossed valentines, the raised portions of which were afterwards bronzed or silvered to give the effect of a metal frame. The girls employed in this work were more highly paid than those in other branches of the valentine industry as their lungs were affected by spreading the metallic dust on the wet ink.

Mechanical valentines date from not earlier than 1838 and were published in considerable numbers from about 1840. They were printed from stone in one colour, usually black, and afterwards tinted by hand. Figures constructed of cardboard with joints of pack-thread were animated by operating a pastebord tongue or lever, thus converting a finely dressed lady into a parrot, or a man into a wolf, or showing a henpecked husband rocking a baby, and innumerable other scenes of a so-called humorous nature. The majority of these were made by the firms of George Meek, Crane Court, Fleet Street, and Dean & Son. It was George Meek who first embossed the printed figure. Another type of movable valentine incorporated in its design a hinged section which when lifted revealed a scene, token, or message appropriate to the occasion. The side of a church, for instance, would open to disclose a wedding ceremony taking place within, and the hull of a rigged ship would fold back to reveal a handsome sailor receiving a message from his lady through the medium of a theatrical cupid hovering above.

Tinsel-decorated valentines date from not earlier than 1840, the first being issued by J. Brown, 21 Mercer Street, Long Acre, London. Tinselling or silking consisted of applying to the background design flower motifs and other ornaments punched from bright-coloured metal foil over paper backing. Some of the motifs required four or five cutters and punches to produce, with as many different-coloured foils. The glittering foils against the light washes of paint in the background give an iridescent effect. Early examples in which each applied ornament is very small are rare. Mr Jonathan King, whose collections of valentines and Christmas cards occupy more than one thousand volumes in the British and London Museums, confessed, after much research,
127 (above, left). Welsh love-spoon. Front, side, and back views of a cage-spoon, probably made in North Wales. Dated on the back of the cage, 1667. In the National Museum of Wales.


129. Two cleverly worked sailors’ gift spoons, each carved from a single piece of wood: the presence of a large spoon bowl between two smaller ones indicates a desire for a large family. In the National Museum of Wales.
that the process of tinselling had been lost. A fine series of valentines were those with cleverly painted portrait miniatures on ivory glued to a fringed silk background, covered with aerophane, and enclosed in elaborate borders of real lace. These were the work of David Mosman of Islington.

Crudely printed comic valentines in virulent colours were issued in tens of thousands each year during the 1840s and 1850s. They were intended mainly for the working classes and displayed skits on various trades, being addressed ‘To a Baker’, ‘To a Joiner’, and so on, with humorous portraits of the craftsmen concerned. S. T. Wood, J. L. Marks, and A. Park, all of London, were specialists in comic valentines, but many were produced by provincial jobbing printers. Comic valentines are often vulgar and have little appeal to the serious collector, but scarce specimens such as the burlesque breach-of-promise summons signed by ‘Betsy Jane Wedlock & Sarah Hann Catch-em-Alive’ as justices of the peace, are well worth preserving. ‘Cupid’s Official Telegram’, enclosed in an orange-coloured envelope, and ‘Bank of Love’ notes, were issued during the early 1860s, but so closely did they resemble genuine telegrams and five-pound notes that their sale was soon prohibited by the Post Office and the Bank of England. Examples are now rare.

Names for collectors to look for, either printed or impressed upon valentines, include the following in addition to those to whom reference has already been made: London Lace Paper & Valentine Company, L. Addenbrooke, R. Carr, J. Fairburn, C. Howland, G. Ingram, G. Kershaw, E. Lloyd, Mullow Brothers, and J. Robey & Sons, Leamington.

Until about 1840, senders of valentines made no real effort to conceal their identities, even though after dusk messengers might be seen darting about residential areas hanging packages on door handles or leaving them on steps before rapping loudly upon the door and speeding away. Some valentines were issued for the exclusive use of ladies. An example of about 1830 shows a lady boldly leading a red-tunicked Cupid to shoot, with curved bow and unerring arrow, at a slender gentleman wearing tightly fitting pink trousers and, with book in hand, reclining on a yellow sofa. The purely anonymous valentine was the result of cheap commercialized printing of comic, and often vulgar, valentines for sending through the newly inaugurated penny post.

Besides valentines, the collector will be interested in the innumerable ‘Valentine Writers’ containing ready-made verse that lifted many a lame poet over love’s stile. Some date from the late eighteenth century, but the majority were published during the first half of the nineteenth, and have the
most grandiloquent names and sub-titles. There is, for instance, Kemish’s *Annual and Universal Valentine Writer* published in 1797. The sub-title is quite beguiling: ‘Being a True Guide to the Temple of Hymen, or Love’s Instructor’. This writer has a charming frontispiece of a becapped lady sitting at a writing-desk, printed in grey-blue ink. *Hymen’s Rhapsodies, or Lovers’ Themes, A Collection of Original Valentine Verses, Written Expressly for this Work for Gentlemen to Address Ladies in Sonnets*, was published by Thomas Hughes, Ludgate Street, London, in about 1800. The frontispiece depicts a uniformed grenadier with his buxom blue-scarved sweetheart, a church in the background showing that his intentions are honourable.

The ladies were not forgotten as probable aspirants for these writers; for one is called *Cupid’s Cabinet, or Lovers’ Pastime, adapted to the use of Both Sexes*. Another has the delightful title of *Hymen’s Revenge against Old Maids, Old Bachelors, and Impertinent Coxcombs*.

Etiquette required that a valentine should be answered. To meet this need Mary Wilkinson wrote *The Turtle Dove or Cupid’s Artillery Levelled Against Human Hearts*, a valentine writer published in 1810 by W. Perks, 21 St Martin’s Lane, price sixpence. A section of this writer contains numerous variations of the two answers—one expressing approval of the valentine’s sentiments, and the other disavowing any intention of acknowledging the protestations of eternal love. The recipient of a valentine merely copied out a suitable reply and despatched it. Typical of Mary Wilkinson’s lines are these:

**A LACONIC VALENTINE**

*My fair I love; if you approve*
*I’m ready to be thine,*
*But if not, no harm is done,*
*My gentle Valentine.*

**ANSWER**

*Your valentine is short and sweet,*
*I’ll answer it the same;*
*That you have won my heart compleat*
*And may my person claim;*
*When you have bought the wedding ring,*
*And that I hope you soon will bring.*

In addition to the ready-made verses the collector of old valentines will find that many young people of those days had a flair for composing verse.
XXIV

Welsh Love-spoons

Love-spoons, each carved from a single block of soft wood, are a characteristic feature of Welsh folk art. After being treasured for generations in Welsh peasant homes, both for their individuality of design and for the sentiment that inspired them, for the last half-century they have been collectors' pieces.

The word spoon has been associated with lovemaking and courtship for at least two hundred years. The general sense of the word was taken from the way in which spoons would be placed close together: thus Trotter in Distressed Seaman, 1789, wrote: 'they are stowed spoonways and so closely locked into each others arms that it is difficult to move without treading upon them'.

Any peasant community, where large families crowd into tiny primitive dwellings, is bound to establish very strict conventions and codes of conduct. Even in the eighteenth century and in larger homes there was still little enough differentiation between sleeping and living apartments, and in the peasant home the bed tended to be the most important feature of the room and its only evidence of comfort—and that often only a straw palliasse on the earth floor. The Welshman, with traditional detestation of promiscuity, met the problems of courtship in such crowded conditions by adopting the custom of bundling.

In the peasant home with a single room serving the needs of an entire family day and night, illumination during hours of darkness might be a single candle, or more usually a rushlight or pine split. As a matter of courtesy the rustic wooer was permitted to find what privacy he could on the bed. The Oxford English Dictionary defines bundling as 'to sleep in one's clothes on the same bed or couch with persons of the opposite sex in Wales'. S. Peters, writing in 1781, recorded that 'it is thought but a piece of civility to ask [a lady] to bundle'. The Welsh maiden did not bundle with all and sundry. The young Welshman with whom she bundled, or spooned, made his position clear to the household by presenting the lady of his choice with a wooden spoon carved by himself. It was economically impossible for a more lavish
token of engagement to be provided. Her acceptance of this love-token indicated that she had consented to his formal offer of marriage, and the love-spoon was prominently displayed above the cottage fireplace. The custom was firmly established throughout Wales by 1760, each spoon being individually carved by the young peasant or fisherman with no other tool than a pocket-knife—hence the wide range of designs. The woods used were sycamore and most of the available fruit woods, such as pear, apple, and plum; holly, yew, lime, pine, and elm were also used.

Love-spoons began to be sold as love-tokens at Welsh fairs from about 1820. Their original purpose as tokens of engagement continued until early in the present century, but for a period they were presented by young men only slightly less freely than valentines. These fairings were mostly workshop productions with wide, flat handles which were enriched with pierced motifs, over-all measurements ranging from five to thirty inches. By Victorian days they were being sold in stationers’ shops.

Early eighteenth-century love-spoons are believed by some authorities to have been short and solid, the plain handle terminating in a decorative finial. The back of the bowl might be carved with the initials of giver and recipient, and the date. By the middle of the century the handle stem had become a field for ornament.

A late eighteenth-century innovation was to expand the love-spoon handle into thin, rectangular panels forming a display ground for carved and pierced decorations. The earliest of these were individualistic pieces typical of a folk art, many being surface-ornamented with chip-carving. From about 1820, when bundling had long been outmoded, love-spoons with panel handles were made commercially, many as a spare-time occupation. The handiwork of individual spoon-makers is occasionally to be recognized.

Panels were pierced with a series of conventional motifs, each with a sentimental meaning. These included silhouette piercings of hearts, anchors, keys and keyholes, crowns, cups, wheels, six-rayed stars, rough outlines of houses. The comma-shaped outline known as the Indian pine was popular, following its introduction on shawls, where it became the most familiar ‘Paisley shawl’ motif. The jury of the Great Exhibition, 1851, suggested that this motif was derived from the growing shoot of the palm tree, provider of food, drink, and shelter. Often four of these were combined to form a circular motif with their pointed ends directed upward. This device on love-spoons dates from about 1820. The keyhole has been interpreted as meaning ‘My house is yours’,
and the wheel, or roundel, a symbol common to all primitive art, 'I will work for you'.

A device having a national rather than a sentimental implication is the representation of the Menai Bridge, which was opened in 1826. Sometimes the lower half of the panel is occupied by a carved and pierced design showing a ship passing through a central arch flanked on each side by four or five towering columns of the viaduct. Numerous variations of this motif exist and later a conventional representation of the Menai Bridge might form a terminal to the wide panel. It must be assumed that few of these were other than commercial productions.

Gothic devices such as delicately carved circular and perpendicular windows date from about 1825. One series of panel handles is so extensively pierced that the handles are little more than delicate designs of open fretwork. In some commercial love-spoons a plain area might be left which the purchaser could carve or pierce with initials or date to form an integral part of the design.

Occasionally early pierced motifs might be more clearly defined by outlining with a shallow incised line. Incisions were sometimes cut deeper and filled with sealing-wax to form a coloured inlay which might be red, blue, dark brown, or white. Coloured woods were also inlaid to form simple geometric designs, and fragments of coloured glass might be introduced for the same purpose from about 1850. Seldom was decoration applied to the back of a panel handle.

Some wide panels dating from about 1850 terminate in pairs of small spoon-bowls placed side by side or, less frequently, one at each end. These are supposed to mean 'We two are one' or 'mutual love'. In another style, one or more large bowls extend from between a pair of small ones. This, it has been suggested, indicates a desire for a large family on the part of the donor. In another series, dating from about 1860, the extension branches into a pair of bowls, making four in all.

The cage handle on a love-spoon appears to date from early in the nineteenth century, making its first appearance as a short neck between a panel handle and its bowl. The early cage design consists of two short parallel sections, each containing up to four balls running loosely within. More usually the entire handle consists of a slender cage, square in section, from which the interior has been cut away, leaving a four-cornered cage divided into two compartments either laterally or vertically. Into each of these is fitted one or
more loose balls cut from the same wood. These balls, sliding up and down in
their cages, appear to the uninitiated to have been carved from the solid wood
of the handle. The balls were usually turned from the same wood as the cage;
but examples are known containing balls moulded from red and blue, or red
and white, sealing-wax.

In one long series of cage handles the design was carved in the form of an
open turnbuckle with a swivel eye and large-link chain copied from a ship’s
tightening-screw, a fixed spoon replacing the adjustable thimble-jaw or eye
at the other end. Such buckles were not patented until the early 1870s, and
love-spoons possessing this feature commemorate the introduction of the
rigging-screw, with the sailor’s consequent rejection of the unsafe dead-eye
that had required continual inspection throughout the day. Spoon, buckle,
and chain were cut from a single piece of wood and might be the hobby of
sailors at sea. So complicated are some of the love-spoons, with their chains,
swinging anchors, and loop-handled spoons carved by Victorian seamen, that
it is difficult to realize that they were cut from single pieces of wood. In some
examples the chain incorporates a representation of a ship’s swivel of a type
first made in the early 1850s but little known before 1870. The eighteenth-
century attribution usually given to buckle love-spoons obviously cannot be
substantiated, but cage handles were made as early as the late seventeenth
century. Several examples of mid-eighteenth century origin are in the National
Museum of Wales.

The cutting of cages, buckles, and chains from the solid wood is less tedious
than is generally realized. An elderly wood-turner in Wolverhampton from
1919 until at least 1930 employed his evenings in producing such work: he
could finish a single machine-roughed example each evening with no other
tool than a four-bladed pocket-knife.

Certain types of Welsh love-spoons are associated with certain localities,
such as the crooked spoon and the dolphin stem, emblem of love and diligence,
with Caernarvonshire. The large panel handle, pierced principally with hearts
and keyholes, and divided horizontally midway into two sections joined by
wooden links, is attributed to the Pembrokeshire area.

The collector of Welsh love-spoons will know that the ‘souvenir’ wood-
carving districts of Switzerland and Scandinavia still issue love-spoons cut
from native woods. These frequently find their way into curio shops where
their nationality magically becomes Welsh. Early in the present century un-
employed Welsh miners and quarrymen carved love-spoons in the old
131 (right). A set of four sand-glasses in a brass frame, one hour to ten minutes; seventeenth-century. In the Science Museum, London.

132 (below, left). Four fifteen-minute sand-glasses fitted into a gilded wood case which is attached to the wall by a pivot enabling it to be swung over easily. Height 17 inches. In the collection of Mr Stanley Marling.

designs, sometimes spending a fortnight in the cutting of a single piece. Wooden spoons of boxwood cut and carved by machinery by W. G. Rogers and W. Harry Rogers, of London, had a wide vogue from about 1845 until 1880. A selection was displayed at the Great Exhibition. These bear no resemblance to nineteenth-century love-spoons, but examples are often attributed to the early eighteenth century. Many of them were based on so-called Gothic designs: some were even carved with dates ranging from 1570 to 1770. Dated love-spoons should always be viewed with great care. Wooden patterns intended for casting brass spoons have sometimes found their way into love-spoon collections. Painted and varnished love-spoons should be considered as of Continental origin.
Old English Sand-glasses

On the Speaker's table in the House of Commons stands a two-minute hour-glass. Immediately the bells begin to sound for a division the glass is reversed, the bells continuing their warning until the sand has run out. This ancient custom provides one of the very few occasions in modern times when the sand-glass, invented about 1,200 years ago by the monk Liutprand of Chartres, is brought into use.

Sand-glasses measure the passage of time by the action of gravity. A quantity of fine sand passes through a tiny hole from a pear-shaped glass receptacle into a similar glass inverted below. The sand from the upper bulb runs into the lower one in a given length of time, its rate of flow being independent of the height of the sand above the hole. The angle of the double cone connecting the two chambers at the aperture is made equal to the angle at which sand lies in repose.

For more than three centuries sand-glasses were everyday articles of use in English churches, ships, schools, the home, and wherever it was important to mark the time. Ships at sea used sand-glasses to count the half-hours, governing the moment at which the ship's bell should be struck, thus establishing the time for the watches as the day progressed. Cooke Lorell's Book, 1515, records that on board ship 'One man Kepte ye compas, and watched ye our glasse'. Columbus on his cross-Atlantic voyages carried half-hour sand-glasses, his log recording a day and night as forty-eight ampolettas, or sand-glasses. Naval captains, in records and letters describing encounters with the enemy, make continual references to the time taken in combat as measured by the hour-glass.

Sand-glasses used on ships were, necessarily, strongly made and encased in stout frames of oak, sometimes with five or six spindles. They were ornamented with the customary small-line fancy-work and might also be decorated with braid-work matching a 'turk's head' drawn tight and orderly about the wasp-waist of the glass. The name of the ship was sometimes carved on one end of the frame.
Every ship also carried a fourteen-second or twenty-eight-second sandglass used in connection with the hand-log, and known as the log-glass. It was used for timing the speed of sailing by the quantity of line paid out in a given time. As protection against moisture and against breakage marine sandglasses might be encased in square wooden boxes fitted with horn or glass windows. Victorian examples were encased in metal tubes cut with inspection apertures.

Pulpit hour-glasses were customary in all churches from the Reformation, parish accounts showing them to have been in use until about 1700. The parish book for 1564 of St Catherine's Church in the City of London contains the entry: 'Payde for an houre glasse that hangeth by the pulpit where the preacher dothe make a sermon, that he may knowe how the houre passeth away, xij". After announcing the text the preacher reversed the hour-glass, placed to his right, and continued his sermon until the sand ran out.

The pulpit sand-glass, of which there might be two to serve for hour and half-hour sermons, was usually supported in a wrought-iron holder known as the cadge or carrier. This was fixed near to the pulpit, where the running sand was visible to both preacher and congregation. At first the support was merely an upright bar fixed to the right of the pulpit and terminating in a circular plate with a high openwork rim within which the hour-glass stood. The stem might be twisted and pivoted from a bracket. Many Elizabethan carriers are highly elaborate examples of the blacksmith's craft, enriched with coloured paints and gilding, and fixed to the wall near to the pulpit. In religious houses it was customary to measure prayers by means of a sand-glass. Monastic cells and workrooms were equipped with sand-glasses, their size as recorded on contemporary engravings indicating that they ran for an hour. A funeral garland placed on a coffin over the face of the dead, and buried with it, often contained an hour-glass.

Until early in the eighteenth century sand-glasses were blown from a thick, heavy, semi-transparent metal. Each sand-glass consisted of two pear-shaped units with narrow necks turned over to form flat lips or flanges. Each was bored with a tiny hole. Between these flanges, which on late examples might be ground flat and true, was placed a metal disc of the same diameter and scarcely thicker than paper. A tiny round hole in the centre regulated the flow of the sand. The size of the hole would obviously affect the time taken for the sand to pass through.

The two flanges, placed together and puttiend, were then bound together
with a lacing of coarse linen, and, to give the waist an attractive finish, a ribbon of thin leather was wrapped round it and bound into position with strong thread carefully spaced to make a basket-work ornamentation. Less expensively, the waist might be held firm with a wax jacket. Sealing-wax was never used, and when found is an indication that the glass has been dislocated or broken and joined together with this material.

The glassman's ideal, however, was an hour-glass blown as a single unit. The effect of this was achieved by an easier method from about 1720, when the tough, transparent flint-glass of the period was still subject to blemishes and thickly blown. The method was to blow the two bulbs of the glass separately and then weld the necks together. Before the join was welded a small cylindrical brass bead, drilled with a hole of the appropriate size, was inserted. The waist of the welded sand-glass was still concealed beneath a decorative leather 'turk's head'.

Later in the century a more tractable metal made it possible to blow the two bulbs in a single piece and considerably thinner. This type, made from sturdy English flint-glass, may usually be dated to 1760 or later. The blowing of such a narrow-waisted vessel was a very delicate process, more especially since it was essential for the interior to be free of striations and the two bulbs had to match. So skilfully did glass-blowers shape their metal that the orifice was of the exact gauge without the use of a tool. Sand-glass bulbs in English flint glass were always more rotund than Continental examples.

From the middle of the eighteenth century some sand-glasses were made by the bottle factories and shaped by blowing into hinged pearwood or applewood moulds. The line of junction, where the halves of the mould met, may be traced on a sand-glass made by this method. Later flint-glass factories used metal moulds carefully hand-burnished. A sand-glass blown or moulded as a single entity has an opening at one end. After the required amount of sand had been introduced, the glass was sealed with a cork, and in all examples made during the collector's period this appears to be padded with a piece of parchment or linen.

Like many a piece of antique glass, the sand-glass rarely has any identification mark to assist the collector in placing its period. The age of a sand-glass is best assessed by the quality of its metal and the method by which the bulbs were made, as described above. If the outer surface of the glass shows faint markings and twistings it is likely to be older than if smooth. Striations were infrequent from about 1760. Early sand-glasses until about 1700 were blown
Set of four sand-glasses in an oak frame: fifteen minutes to one hour. Seventeenth century. In the Science Museum, London.

135 (below). An early sand-glass in an ivory case with six supports carved in the form of sea-horses; height 4 inches. An hour-glass with a wood case measuring 13 inches. A sand-glass in a silver frame which when not in use may be laid horizontally upon its feet like a knife-rest. In the collection of Mr Stanley Marling.
136. A pulpit sand-glass with a wrought-iron bracket; early seventeenth-century, in the Victoria and Albert Museum.

137 (below, left to right). A traveller's sand-glass enclosed in a shagreen case, height 3 inches. An inexpensive sand-glass with tartan-decorated pillars, made at Auchinlone in early Victorian days. An unusual hour-glass, the sand in each of the bulbs indicating the passing of fifteen minutes, the wooden stand covered with fine straw-work decoration, 9½ inches high. An hour-glass in iron hexagonal case dating to early in the seventeenth century. A specimen with a revolving brass case and one of the ends engraved I.H.S.; in the collection of Mr Stanley Marling.
from glass having a faintly green tinge, and in each end was a kick or indent with a rough scar showing where it had been attached to the punty-rod in the course of manufacture. During the eighteenth century, sand-glasses were made from tough flint-glass, at first with a darkish hue caused by the presence of a large amount of lead in its composition. After about 1800 the glass was crystal clear. The kick, shallower in the eighteenth century than formerly, continued with progressively lessening depth until about 1750, when the punty-rod could be broken off less raggedly and the resulting scar might be ground smooth.

The sand used in expensive sand-glasses, where considerable accuracy might be required, consisted of ground marble dust prepared by boiling in wine, drying, then re-grinding and sifting as many as nine or ten times. After testing, the appropriate quantity was measured into the bulb, which was then sealed. Red sand was usual until about 1720, when white sand was used. Occasionally green sands were introduced. The sand was ground as fine as possible in a mortar. Careful sifting was essential: a single extra-large particle might break the even flow of the sand. The fineness of the sand was proportioned to the size of the orifice through which it was required to pass. Pulverized cinnamon or egg-shells might be used as alternatives.

The sand-glass was always held vertically in a frame. The more expensive of these were of silver, ebony, ivory, bone, or ornamental metals such as brass and copper. The vast majority, however, were of oak, consisting of thin, circular end-pieces held together by four to six slender spindles. Early sand-glasses are more massive than eighteenth-century examples. The ends might be ornamented with two or three concentric rings. Octagonal or square ends were also made: such a sand-glass could be laid flat on the table if an interruption was required during the period being measured by the sand's flow. In early sand-glasses, the end of each bulb, to the extent of about one-quarter of its length, was fitted into a narrow cylindrical guard of thin wood fixed to the inner side of each end. This ensured that the sand-glass was held firmly in a vertical position. In examples made after about 1780 a shallow depression was cut into each end to take the curved end of the bulb.

The majority of spindles were turned in baluster form or as series of plain knops. Later they might taper from the centre towards each end. The wood might be gilded, painted, stained, or, most frequently, oiled and left plain. Some small examples had only three upright spindles. In many more sand-glasses from about 1840 the circular ends might be joined by a solid tube of
wood from which two centrally-placed ovals had been cut opposite each other for viewing the running sand.

The ordinary hour-glass was never costly. In 1591 the churchwardens of St Helen's Church, Abingdon, paid fourpence 'for an houre glass for the pulpit'. In 1593 the inventoried stock of a shop in Newcastle-upon-Tyne included '4 houre glasses, 1 shilling'. Almost two centuries later, in 1776, an hour-glass cost one shilling and sixpence. In 1820 the cost would be half-a-crown.

Eighteenth-century hour and half-hour sand-glasses of all types are still comparatively common; three-quarter-hour examples are rare. There are many types and variations, such as those large enough to be marked on the outside with twelve hourly divisions, thus requiring to be turned but twice in a day.

A frame containing four sand-glasses marking the hour in quarters, being timed to run one, three-quarters, half, and one-quarter hour, made it possible for a preacher to know approximately how much of the hour allotted for his sermon had passed. Although the four sand-glasses were of similar size and contained equal quantities of sand, the size of the hole regulated the speed at which the sand ran out. The majority of these were fitted into rectangular ten-spindle frames of oak or fruit-wood. Another type, often constructed from sheet brass with turned brass spindles, pivoted on an upright, enabling the set to be reversed with a touch of the hand. Early in the eighteenth century, metal wall-sconces, or plaques of brass or copper, were made with a bracket upon which the sand-glass could be placed. Such sconces were embossed with designs such as Father Time and his scythe, and conventional motifs such as flowers and foliage. Sand-glasses made to hang direct upon the wall date from late in the eighteenth century. These were fitted with polished mahogany or oak cases having glass windows on three sides. They were sold in sizes varying from five minutes to one hour.

The pocket sand-glass was enclosed in a cylindrical leather case, a section of which opened to reveal the glass. One-minute glasses of this type were carried by doctors for timing the pulse. On the interior of the lid might be fitted a metal dial scaled from one to twelve and fitted with a centrally pivoted pointer enabling periods of up to twelve minutes to be timed.

Long, narrow, tubular sand-glasses were made from the middle of the eighteenth century. These were fitted into flat cases, such as might hold the tube of a contemporary barometer, marked upward and downward with a
graduated scale indicating the minutes. As the level of the sand in the upper section moved downwards, the number of minutes that had passed was clearly indicated.

For more than a century small sand-glasses have been timed to run for three or four minutes for boiling eggs. These are to be found in Tunbridge ware, but more usually in frames of imitation satinwood with prints pasted on the ends.
Musical Boxes

Throughout almost the whole of the nineteenth century musical boxes chimed and tinkled their melodious little accompaniment to the life of drawing-room, boudoir, and nursery. One season patriotic songs were all the rage; another year every fashionable model had to render a Mozart overture. Where at first a single repertoire of half a dozen tunes sufficed, the demand was soon for interchangeable programmes, and all the effects of an orchestra. During their heyday, these laudable expressions of man’s taste and inventiveness were produced in tens of thousands. Yet today they are fast becoming collectors’ rarities, to be hailed with renewed delight and cajoled into their unsophisticated renderings of forgotten favourites.

Even more surprising, perhaps, is the fact that these elaborate toys of Regency and Victorian days were based on principles established before the end of the fifteenth century, in the portable timepieces invented by Peter Henlein in 1480. For more than a century, horologists took no interest in this invention of a German locksmith, who was soon fitting table-clocks with musical striking apparatus of extreme simplicity. By winding a driving spring with a key, small steel pins set in a brass disc were made to pluck a resounding metal comb with fifteen to twenty-five teeth tuned to scale.

Early in the eighteenth century it became feasible so to reduce the size of disc and comb that units for playing simple tunes could be incorporated in pocket-watches. There were two springs to wind, one to drive the time mechanism and the other to work the automatic music. Combs for this purpose were made with the teeth radiating fan-like from a central point. The Swiss Office for the Development of Trade claims that the first musical pocket-watch was made by Louis Favre of Genoa. By 1780 musical watches could play two airs. Philippe Meylan in the mid-1790s invented mechanism with a single spring supplying the driving power for both timepiece and music.

Although master-watchmakers in London and Paris made some of the finest musical watches, the mechanisms were made chiefly in workshops
scattered throughout Switzerland. In the first decade of the nineteenth century those engaged in the trade were gradually attracted to Geneva, where piercers, pin-makers, wheel-cutters, comb-makers, cylinder-prickers, and others worked as specialists in their own homes, supplying parts to the various assembly factories. As a result, Swiss mechanisms of good quality were much cheaper than comparable English or French productions. Other musical movements were of the simplest construction, with cast-brass bed-plate and spring-case, a train of three wheels, and a disc set with pins contacting comb teeth tuned to scale.

Musical movements giving only a few notes—a scale at most—were now designed for fitting into cane and umbrella handles, perfume-bottles, rings, seals, watch-keys, fans, and similar dress accessories.

The musical-box industry proper was born in about 1810, shortly after David Lecoultre perfected a mechanism in which the disc was replaced by a revolving cylinder of brass from which steel pins projected. Cylinder and comb were placed parallel to each other. The primitive *montre à carillon* was transformed into an enlarged instrument now capable of producing complicated tunes.

Grove’s *Dictionary of Music* describes musical boxes working on this principle as ‘carillons on a minute scale, playing on vibrating tongues’. The music is produced by the vibration of a graduated series of teeth cut in a flat plate of steel, reinforced by harmonics generated in the solid steel of the comb-spine. The longest teeth produce the deepest note and each is accurately tuned by filing, or filling with lead. The musical vibrations are produced by the slow revolution of a brass cylinder studded with projecting pins of equal length. These raise and release the requisite teeth at the intervals required by the tune being played. A single revolution of the cylinder completes the performance of each of the several pieces of music for which it is set.

The musical box proper, working on this principle and accommodated in a small plain rectangular box, first appeared in England during the Regency. The tunes lacked volume of sound, and their notes were inclined to chatter. The first of a long sequence of improvements was made shortly after 1820. Combs, which formerly had required much expensive detailed work in fixing teeth to the brass bed-plate, at first singly and then in groups of three to five, now began to be cut from single plates of steel. Dampers in the form of tiny feather quills, fixed with shellac to the underside of the comb-points, were introduced in about 1825. This prevented the chattering which had been
caused if a tooth were struck by a pin before vibration from a former action had ceased.

Efforts to increase the range of tone led to the appearance of the first considerable musical box in 1833. Known as the Cartel music box, this showed the first of many developments in tone. Five or six years later Nicole-Frères of Geneva introduced the two-comb or forte-piano musical box. This was a great improvement on any musical box made hitherto, playing loudly or softly as the music required. The comb was built in two parallel sections. The longer, placed on the left and emitting loud notes, was fitted with resonators—small lead weights—beneath about two-thirds of the base notes. When the comb-teeth were filed for tuning they were left more rigid than those on the short or piano comb, which might or might not possess resonators. The cylinders were fitted with pins contacting the loud section of the comb when forte music was required: teeth similar and less rigid contacted the short section which emitted a soft tone.

The movement of forte-piano musical boxes, larger than anything previously seen, had combs fitted with flat steel wire dampers, with the exception of short high notes which retained their feather quills. The finest makers of these musical boxes were Nicole-Frères, Paillard, and Baker-Troll, all of whom signed their movements. Many thousands of unsigned examples exist to which it is difficult to assign makers, as forte-piano musical boxes were made in several countries and often assembled from Swiss-made parts.

A mandoline effect was evolved at about the same period. This was fitted to some of the larger musical boxes, a dominant note being repeated at regular intervals like a well-played mandoline. A magnifying effect was obtained by using five combs, each having eight or ten notes of the same pitch, in the centre and the treble end. This prevented the possibility of a discordant note caused through the pins being so closely placed that a tooth struck by a pin could not produce sufficient vibrations before it was struck again.

Large, deep-toned combs tuned to chromatic scale were used to produce really good music on high-quality machines from about 1840, and at about the same time appeared cylinders eighteen inches to twenty-two inches long.

Innovations in automatic music made before 1850 included the addition of a drum and bell accompaniment. In early examples the brass drum was screwed to the bottom of the case, concealed beneath the bed-plate. The six or more bells hung in a cluster on a small gantry beneath the movement and were struck with little brass hammers. From about 1860 drum and bells were
138. Exterior of a musical box with lid of polished rosewood inlaid with a floral design.

139 (below). Interior of the same musical box showing the three-bell accompaniment and the programme of airs inside the lid. By Henry How, London, circa 1850. In the collection of Dr Jennifer Daniel.
140. Interior of a Polyphon giant musical box in a walnut case, the lower part of which contains storage space for forty-eight metal discs. Height 6 feet 6 inches.
placed in full view and added greatly to the appearance of the box. Four to twelve bells were hung on either side of the drum which now had a parchment head. Both drum and bells might be gold- or silver-plated and some examples were elaborately chased. Less melodious drum and bells were included in most cheap musical boxes from 1875.

The Flutina, or reed, musical box made its appearance in 1850. Flute effects were obtained by the introduction of air-vibrated reeds, numbering between seventeen and thirty-six according to the cost of the movement. The organ notes were arranged in the centre of the cylinder with a comb on either side. The combined effect of comb music and flute was excellent when the cylinder exceeded seventeen inches in length. A variation was made with a single comb, the organ notes being at one end. Later came the Orchestra musical box: in these an orchestral effect was produced by the introduction of wooden or metal whistles.

An important advance took place in 1854 with the invention of the interchange musical box in which cylinders might be replaced by others containing fresh programmes of music. As far as expensive musical boxes were concerned, this ended the era of boring repetition. The changing mechanism was improved in 1862 and telescopic cylinders were evolved, expanding as the tune was played. By 1870 a series of cylinders might be arranged on a rotating shaft with a device enabling any one to be brought into playing position. Musically the interchangeable cylinder was not equal to fixed cylinders of good quality.

The Sublime Harmony musical box, in which similar notes striking together in a chord produced greater volume and richer tone than any former type, appeared in 1870. This contained two or three combs of equal length having excellent base tones. The Sublime Harmony Piccolo had two combs, one short with fine teeth and capable of emitting loud high notes. This gave a clear, distinct accompaniment to the melody of the long comb.

Musical boxes with four springs, capable of playing for three hours with a single winding, appeared in 1875. The tune-changer was devised in 1881, enabling the cylinder to be lifted into as many as ten slightly different positions. Manufacturers now inserted pins so closely that a shift of one-tenth of an inch in the mechanism brought into operation a fresh tune.

Until 1873 the positions of the steel pins on musical-box cylinders were marked off by hand, and holes bored for their reception. This was a tedious process and costly in labour, for only skilful workmen thoroughly versed in
music could be employed. Every cylinder—even a thousand playing identical tunes—was separately marked in this way. A hollow punch ensured that the pins were fixed in position with equal lengths. Warm sealing composition was then run into the cylinder and its ends covered with brass. Pattern cylinders, or jigs, were first used in 1873, the working cylinder being slipped inside and quickly marked. After 1881 a machine was available for pricking dents in the cylinder, which was then made from sheet metal of unvarying thickness instead of being cast.

Musical boxes playing circular card discs were introduced in 1885 by Paul Lockmann of Leipzig. Known as the Symphonium, this design was patented and could be made far more cheaply than the cylinder type; moreover, a wide range of tunes was provided. This machine was fitted with tiny levers for plucking the combs, perforations in the card disc bringing the levers into operation. Within two years metal discs were in use, the star wheel for lifting the teeth also being evolved. By 1890 discs measured fifteen and a half inches in diameter. The introduction of the disc-operated musical box had a devastating effect upon the sales of the cylinder type. The music was clear, and up-to-date tunes from the London shows were in the shops within a few weeks of production, the original musical scores being closely followed.

With changes in their mechanism, came changes in the appearance of musical boxes. Early examples were enclosed in perfectly plain cases of fine quality oak or mahogany. These were followed from the mid-1820s by cases of polished rosewood. From this period, too, cases might be made to order, matching the purchaser’s furniture. At first a large movement had key-wind, stop-start, and change-repeat levers projecting through the side of the case. From about 1835 a hinged flap concealed these control levers.

Few, if any, inlaid cases were made earlier than about 1840. At first the lid only was enriched in this manner, plain lines of inlay following its edges. The interior lid of plate glass appeared in 1843 to protect the movement from dust and accident. From 1850 this might be enriched with an elaborate wheel-engraved border. Ratchet winding came at the same time, the key being placed beneath the glass lid, which had to be opened for the winding.

Elaborately inlaid cases do not appear to have been made in any great number until after the Great Exhibition. These cases were fine examples of the cabinet-maker’s art and were inlaid on the four sides, the lid, and the frame of the inner plate-glass lid. Walnut, rosewood, mahogany, satinwood, burr elm, cherry, maple, amboyna, and coromandel were the favourite woods,
and might be inlaid with colourful fruit woods of contrasting colours, silver, ivory, mother-of-pearl, brass, or zinc. The centre of the lid might be inlaid with a design composed of trumpet, tamborine, music-sheet, and olive-branch. Other musical devices were also used. Cases of oak were made, at first plain, then hand-turned, and finally mechanically carved, golden oak examples lavishly embellished with applied decorations of cast bronze being made from 1880.

The interior of the lid usually displayed a numbered programme of the repertoire of airs available. This was usually a card with an engraved border enclosing the names of the tunes in copper-plate handwriting. Sometimes the programme was engraved on a silver or brass plate. Occasionally the interior of the lid might display instead a colourful painting in oils and bronze, of the type found on contemporary papier-mâché ware.

The music produced by these fascinating mechanisms went through various phases too. Until about 1835 it consisted chiefly of operatic selections. Ballads and patriotic and folk songs had a vogue from 1835 to 1850, six or eight airs being played: other boxes, rather less popular, played three or four overtures. Airs from oratorios were introduced into the musical-box repertoire from about 1845. Then came a demand for short overtures, reproduced in full and note perfect, such as Mozart’s Magic Flute, Bellini’s Norma, Rossini’s Barber of Seville, and William Tell, the latter slightly abridged.

During the period 1850–75, the musical box most usually played six or eight waltzes. Popular tunes were the rule, with an occasional operatic overture included on the cylinder by way of variety. From 1875, music-hall tunes predominated in cheap musical boxes, classical music being extensively used in finer-quality machines.

Giant musical boxes were shown at the Great Exhibition with cases six feet long and playing cylinders thirty-three inches long. From 1860 to 1880 they were made in considerable numbers, many with interchangeable cylinders. At first such a box was accompanied by a matching table with drawers fitted for the safe storage of spare cylinders, or a writing-desk with side drawers might be used for this purpose. In later examples drawers were fitted beneath the musical box itself. Giant musical boxes with organ accompaniment were made by J. H. Heller from 1870. Fitted into the front of the case of some specimens was a tiny keyboard connected with the reed organ so that a skilled organist might accompany the automatic music.

On the same principle as musical boxes, various lesser musical toys were
produced during the nineteenth century. Among these the so-called musical snuff-boxes were particularly popular from about 1820 until the middle of the century, providing precisely the quality of pleasant surprise required at that period. These were described in the Penny Magazine, 1838, as ‘playing two tunes over and over again. . . . Usually they came in fancy boxes with works visible beneath a sheet of horn. Some of the larger snuff-boxes are able to play as many as six different tunes.’ The majority of musical snuff-boxes were of iron, japanned in attractive colours, with hand-painted decorations; transfers were not used until after 1820. Rarely, the boxes might be of tortoiseshell, mother-of-pearl, or horn, and some papier-mâché examples are known.

For children there was the toy musical box providing a single tune. These were made in tens of thousands from about 1835. The springless mechanism was operated by an extension of the cylinder axle which was turned with a hand crank. Later in the century, from about 1865, there was the novelty of the high-backed hall chair with a musical box fitted in the seat. Anyone sitting in the chair started the mechanism, which played a single tune and then stopped, although a push-rod would stop it at any time. It could also be adjusted to continue through the cylinder’s eight tunes.

Tens of thousands of German musical boxes were made specifically for the English market during the last quarter of the nineteenth century, their programmes consisting almost entirely of the latest music-hall songs. Such a box selling retail at fifteen to twenty-five shillings, had a six-inch cylinder playing six, eight, or ten tunes, and three bells of identical tone. The case was often of light-stained deal or golden oak, decorated with transfers, and varnished.

English labels often disguise Continental movements and many firms issuing catalogues indicated that they were the manufacturers and listed their boxes under purely English trade names. In such examples finished parts were imported to Birmingham and Clerkenwell, where they were assembled and fitted into cases. In 1880 thirty Swiss firms were supplying movements to English merchants, many of them through offices or agents established in London. The finest movements were made between 1850 and 1875, illustrated catalogues indicating that prices for single-cylinder boxes ranged from four to sixteen guineas.
XXVII

Chessmen

Ever since the first chessmen were placed upon their squared board they have fascinated men with the glamour of gaming. Kings have watched the fortunes of an empire dwindle at the chess-board, gloomy morals have been pointed from the fates of unwise gamblers at the game, and yet for many centuries chess has provided an endlessly absorbing pastime for all kinds of people.

Enthusiasts like to claim a 5,000-year history for their game, but experts are agreed that chess-playing can have begun little earlier than A.D. 500. Chess was a gradual development of a game played with pebbles in a square divided by lines, an amusement which captivated the shepherds of Western Asia before the days of Homer. The later Greek game of petteia was played on a similar board, with simple pieces resembling those of modern halma.

The values and movements of pieces gradually changed through the following centuries until about A.D. 500, when innovations made by Nassir Dahir in India gave the game a military significance. This early form of chess was carried to the court of the great Cosru in Persia about fifty years later, reaching China at about the same time. Already the game was found so fascinating that rich and poor alike played for extravagantly high stakes.

The idea of grading chessmen by modelling each into a distinctive, easily recognized shape was a refinement of the twelfth century. Each chess-playing country developed its own individual designs, exquisite pieces being created with naturalistic representations of human figures and animals. The Hindus carved ivory to represent opposing armies with chariot, elephant, horse, and foot units. The Arabs, however, to whom the delineation of the human figure is unacceptable on religious grounds, continued to use stumpy, angular pieces, whose surfaces might be pictorially incised.

Chess reached Europe during this period and pieces became magnificent in precious metals, jewelled and brilliantly enamelled. The king acquired the
regalia of European royalty, and pawns were represented by foot-soldiers. Positions and powers on the board remained unaltered except for those of the queen, which were greatly increased above those of the Eastern 'vizier' or 'counsellor' whom she replaced.

Chess is known to have been played in England as early as 1144: records of a fire which destroyed Hyde de Abbey, Winchester, in that year refer to the game. A manuscript in the British Museum describing Richard Cœur de Lion's Crusade records that 'Kync Rychard stode and playe At the Chesse in his Galley'. Jewelled gold and carved ivory sets find frequent mention in fifteenth-century literature, but an entry in the Howard household accounts, 1481–90, refers to less expensive sets: 'Pay'd to the chessmaker for chess-players viijd'.

So widespread was the vogue for chess in fifteenth-century England that Edward IV took steps to prevent men from neglecting their work for the lure of the chess-board, by decreeing that, for all but the nobility, play must be restricted to holidays. In 1474 William Caxton published *The Game and Playe of Cheasse*, in which the pieces were termed king, queen, alphyxs, knights, rooks, and pawns. The name alphyn is derived from the Italian alferi, standard-bearers administering the king's laws. Catholic players in England eventually converted them into cross-bearing bishops, supporting the king and queen as the immediate upholders of law and order. Rooks, from the Italian rocchi, meaning rocks, towers, or castles, were the king's outposts maintaining his authority in distant parts of the kingdom. Knights were the king's champions leading his forces into the field of battle.

Pawns, the old English form of peon, represented people on foot or workers generally, and in Caxton's time were carved to depict eight occupations. The king's pawn symbolized a banker-merchant, and the queen's pawn a physician-apothecary; before the alphyxs stood a notary (on the right), and an inn-keeper-provision-dealer; the knights' pawns portrayed workers in stone, iron, or wood, and keepers of the king's highway; the rooks' pawns were couriers and farm-labourers. Caxton's book obviously met a demand, for two years later he printed a second volume on chess.

Ivory, bone, and hardwood were the English craftsman's favourite materials for chessmen, pieces for common use being plainly turned in wood and costing three shillings a set in 1583, the accompanying chess-board eightpence. The Earl of Northampton in 1614 possessed 'a table of ebonie inlaid with ivorie and with men suteable', valued at five shillings. The earl's best set, preserved
Exterior and interior of an early hand-operated musical box playing eight tunes: the cogs are carved in the solid wood, and steel pins project from a revolving cylinder of hardwood. The mahogany case is bound with can-brass corner pieces. In the collection of Mrs. K. M. Bossell.
143. Indian chess-set in carved and painted ivory. The opposing sides represent Englishmen of the East India Company and Indians. In the collection of Lt.-Col. Leo Jenner.
in a 'cabinet of purple velvett with cheesse board and men suteable laced with gold lace', was valued at ten pounds.

After the Restoration naturalistically modelled chessmen were commissioned from London goldsmiths and workers in ivory. Precious metals were splendidly jewelled and enamelled, and because such chessmen were never exposed for sale they were seldom hall-marked. For everyday use, chessmen in metal might have opposing pieces in bronze and pewter, such sets being advertised until after 1830.

English craftsmen in ivory had lagged far behind their Continental rivals until about 1740. Georgian ivory-workers then took the golden opportunity offered by the large demand for a new class of chessmen, a compromise between the two former types, the one magnificent and the other purely utilitarian.

Bishops and pawns in many standardized chess-sets made between 1750 and 1790 wore top-hats, a feature taken from Eastern chessmen commissioned by employees of the East India Company. Until about 1780 each figure stood upon a thin disc; from then until the end of the century they were usually mounted on short, turned pedestals.

Ostrich-feather effects on kings and queens are often found on chess-sets carved or cast between about 1790 and 1820. After 1800 the ostrich feather might be replaced by crowns carved with faces, the mitres of bishops, who wore elaborate ruffs, being similarly decorated. In some of these sets, the horses' heads representing knights were suggestive of prancing animals, each with a small pair of forelegs waving in the air. Such sets were also commissioned from China, these being recognizable by their Oriental faces: those made in England possess western features. The design of English chessmen tended to become less ornate from 1820, bodies of kings and queens being reduced to truncated cones. Some ten years later, kings and queens became cylindrical, often with lavishly ornamented surfaces. Such chessmen in ivory, bone, and boxwood were fashionable until 1860.

Other materials from which English chessmen have been made include light and dark amber, Scottish pebble and agate, coloured glass, and horn and ivory, this being a favourite combination in Stuart days.

Commemorative chess-sets were an eighteenth-century fashion responsible for many of the splendidly carved ivory pieces which now grace collectors' cabinets. Ivory sets commemorating military victories displayed carved portrait busts of the leaders of the opposing armies. Chessmen representing
Hanoverian and Jacobite personalities date between 1743 and 1760, some of the earliest being in precious metals wrought in Birmingham. Six dozen Jacobite propaganda sets, enclosed with a consignment of wrought armour intended for Prince Charles Edward's adherents in London, were intercepted on Ludgate Hill in 1746. Jacobite propaganda chess-sets made after 1747 omitted the bust of Prince Henry.

The Napoleonic wars were responsible for a long series of military chessmen in ivory, bone, and boxwood. Typical were sets portraying Napoleon and Josephine as king and queen, their pawns being boldly carved portrait-busts of French fighting generals: the opposing side in red represented the Mamelukes.

Chessmen commemorative of the struggle between Frederick the Great and Maria Theresa were exquisitely carved in ivory: those depicting Frederick the Great and the Turks were highly popular in silver and in ivory. Other English-made sets of military origin include Frederick the Great and Napoleon; Romans and Barbarians; Crusaders and Saracens; Romans and Moors; Norsemen and French; Richard I and Philip Augustus.

Exclusively English are the Staunton chessmen designed in 1847 by a Mr Cooke and made by John Jacques & Son, London. Tens of thousands of Staunton sets—named after Howard Staunton, the famous chess-player—have been made of boxwood, natural colour and black or red. The conventional king and queen are crowned, the bishop is mitred, and the rook is a castellated tower.

Richly carved and fretted chess-sets of ivory have been made for more than 250 years in the Orient for export to England. Chinese chessmen intended for European players bear no resemblance to their own choice of squat draught-like pieces. The earliest of those chessmen intended for the English market were mounted on pedestals, and their main feature consisted of several free, concentric, hollow fretted balls. The king and queen might each contain as many as seven of these delicate, loosely revolving balls in their pedestals, the pawns three. Such pieces are still being made. Another Chinese type raised each figure on a solid cylindrical pedestal enriched with exquisitely fine carving; others again featured realistically modelled fighting men supported on thin flat bases, either square or circular.

Indian chessmen designed for English players have always been sumptuously carved, and for more than a century represented India and the East India Company as opponents. Both sides were left white, the Indians standing on
black or coloured bases. Rajahs and viziers—queens are unknown in Eastern sets—were represented by laden elephants, the rajahs carrying howdahs. Bishops took the form of lions for the Company, bulls for India. The Company knights rode on horses, the Indians on dromedaries. Pawns were foot-soldiers in the uniforms of their leaders.

The earliest chessmen to be made of porcelain were produced at Fürstenberg between about 1750 and 1758. Of conventional baroque design and poorly finished, many sets in blue and white and pink and white were imported by Maydwell & Windle and sold at their Strand warehouse. These chessmen are marked with a script F in blue underglaze.

Finely finished chessmen and boards were made by Meissen from 1758, many sets complete with elaborate cases of tortoise-shell, shagreen, or colourful woods being brought to London by returning diplomats and members of Queen Charlotte’s entourage. The kings and queens of the opposing sides were taken from moulds slightly varying in pattern, but otherwise the opposing pieces differed only in decoration. Rooks were elephants without howdahs, knights were riderless horses. Portrait-bust chess-sets were also issued by Meissen during the 1760s and were also sold in London by Maydwell & Windle. These early Meissen chessmen are marked in blue underglaze with a script M above crossed swords; those marked only with blue crossed swords underglaze are of recent manufacture.

Josiah Wedgwood was the first English potter to make chessmen. The earliest oven-trials took place late in 1783, the year in which the pieces were modelled by John Flaxman. A letter written to Etruria by Thomas Byerley, nephew and partner of Josiah Wedgwood, F.R.S., and dated London, December 6, 1783, reads, ‘If you can be so good as to get here by next Monday, 2 or 3 more sets of chessmen without Bases—we can sell them’. Flaxman’s designs pleased the master-potter, for the firm’s records include a letter from the sculptor thanking him ‘for the liberal praise you bestowed on my chess-figures’. These chessmen, finely modelled in porcelain, represent actors playing Macbeth. Charles Kemble’s interpretation of Duncan, King of Scotland, was used as the king; Mrs Siddons as Lady Macbeth was the queen. Three differing models of the king and queen are known. One model only was used for each of the remaining pieces, rooks having square crenelated towers, the knights riding rearing horses, and the bishops being vested in copes and mitres. The pawns were foot-soldiers, armed with primitive weapons—stones, battle-axes, daggers, and bows and arrows. In sets intended for the French market the
bishops were replaced by jesters, referred to in the old oven-trial books as 'Tom Fools'.

Wedgwood porcelain chessmen are found with three types of bases. Rough porcelain mounds serving as footholds for the figures are indicative of the rare 1784 edition in blue and white porcelain. These were followed by flat, wafer-like bases, in their turn superseded by Attic bases—short, plainly turned, classical plinths of porcelain. Contemporary kiln records show that Wedgwood chessmen, of which many sets were sold between 1785 and 1795 at five guineas the set, were made in grey, mauve, dark biscuit, blue, Flemish green, buff, and brilliant white. Pieces were usually of one colour throughout, sometimes enlivened with gold pencilling: a few were white on coloured porcelain bases. The mark is always WEDGWOOD impressed, early chessmen also bearing model numbers and workmen’s marks in the form of single initials or fine lines. Flaxman sets in porcelain were sold until well into the nineteenth century.

Jasper chessmen were made by Wedgwood from 1849, bases of black and natural boxwood distinguishing the opposing sides. These sold at £3 10s. 6d. the set. Stoneware chessmen made during the same period sold at £3 1s. 6d. the set. Reproductions of the early porcelain Macbeth chessmen in creamy white and blue have been made by Wedgwood from the original Flaxman moulds since 1931.

Rockingham issued finely modelled chessmen attired in the Tudor fashion, and less pretentious sets in the conventional turned design in apple green and periwinkle blue, enlivened with gilding. These were made between 1822 and about 1826.

The Castleford Pottery in Yorkshire is credited with having made porcelain chessmen from about 1795. There is no record, however, that Castleford ever made any porcelain, and their present successors have no evidence that chessmen were made in either porcelain or pottery. In the so-called Castleford chess-sets, the king and queen represent George III and Queen Charlotte, crowned and in their state robes, the pawns being kilted Scots guards. Elephants supporting howdahs in the form of square, castellated towers, are the rooks. Both sides are made from the same moulds, the colours being chocolate brown and grey-green, white and grey-blue, black and white. These pieces are unmarked and have been extensively copied. Porcelain chessmen from Sévres and the Imperial China Factory, Vienna, were extensively sold in England half a century ago. In about 1930 the former Imperial Porcelain Works,

145. So-called Castleford chessmen made of pottery. The king and queen represent George III and Queen Charlotte in state robes, circa 1795. In the Spencer Summers Collection.
146. One side of a chess-set made *circa* 1790 at Delhi to the commission of the East India Company. In the collection of Mr Alex Hammond.

147. English chessmen of *circa* 1800 in bloodstone. The opposing side is in moss agate. In the collection of Mr Alex Hammond.
Leningrad, exported the now rare propaganda sets marked with the sickle and hammer, in which the white king has a death's head, the queen and bishops represent the Czarina and officers of the old régime, and the pawns are busts of men in chains. The red king and queen are red workers, the bishops are red soldiers, the rooks are anvils and ships, and the red pawns are red women workers.
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