JOURNAL OF THE ACADEMIE INTERNATIONALE DE LA PIPE

Edited by David A. Higgins

VOLUME 2
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JOURNAL OF THE ACADEMIE INTERNATIONALE DE LA PIPE

THE ACADEMY
The Académie Internationale de la Pipe was founded in 1984 to provide a forum for leading scholars from around the world engaged in any field of study relating to the smoking pipe. The Academy's object is to advance the education of the public in the economic and social history of tobacco and pipe smoking worldwide. Its principal aims are to promote better awareness of the pipe as a cultural, artistic and social phenomenon; to highlight the particular place the pipe holds in the history of peoples and civilizations; to collect, preserve and disseminate evidence relating to its history and associations, and to encourage research concerning the past, present or future of the subject.

Academy members bring their own specialisms in fields such as archaeology, social and economic history and fine art, as well as having the opportunity to collaborate with others in working groups. This annual journal has been established to publish the results of the Academy's work, which will be of relevance to researchers from a wide range of related disciplines around the world.

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The Academy holds an annual conference, in between which working groups are encouraged to continue their studies into particular areas of research. The current annual subscription is £20 (or 30 Euros) per household, which allows access to the Academy's meetings as well as receipt of regular newsletters and one copy of this journal. Anyone wishing to apply to join the Academy should, in the first instance, contact the administrator, Dr. Susie White, at the address given above.

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JOURNAL OF THE ACADEMIE INTERNATIONALE DE LA PIPE

VOLUME 2

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EDITORIAL

Following the launch of the new journal in 2008 with a single major study of the Saint-Quentin-la-Poterie pipe making industry, there has now been an opportunity to bring together a broader range of papers for this second volume, which includes the work of some 23 different international authors and runs to more than 50,000 words in length. This volume is more typical of the intended format for the journal, with the first part comprising a collection of themed papers and the second a series of individual studies on a more diverse range of topics.

The first part of this year's volume presents the results of a project by the Academy's clay pipe working group, which set out to examine the state of knowledge regarding the clay tobacco pipe industry in as many different countries as possible. The information relating to each country has been compiled in a systematic manner and provides a chronological narrative of clay pipe production and use in each area. These accounts have, of necessity, had to be kept brief but they are intended to provide a broad overview of each country as well as a means of accessing the key literature and collections relating to that area if more information is required. Each summary has been written by a specialist in the relevant field and, taken together, they cover a significant proportion of the areas over which clay pipes were in common use (*cf* Figure 1 on page 2). This is the most extensive survey of its type that has ever been undertaken and it should provide a key resource for anyone wishing to either study a particular country or region, or to place their pipes within a broader context. Further summaries for countries not yet covered are welcome and will be published in future volumes of this journal.

The second part of this volume comprises a series of papers on different topics of research. These range from studies of particular classes of artefact, such as cheroot holders and ember pots, to the broader social customs and paraphernalia associated with smoking, as seen in the Norwegian *langpipe* paper. The paper on advertising pipes shows how a single theme can be explored across pipes produced in a range of different materials while the paper on the Civic Company's pattern book allows an in-depth examination of the patterns that they produced and the way in which the briar trade functioned.

The main theme for Volume 3 will be based on the proceedings of the Academy's very successful 2009 conference in Budapest. The papers presented at that meeting will provide an excellent overview of the pipes found in Eastern Europe, where the Ottoman and European traditions met, overlapped and merged. Other papers will include the meerschaum working group's iconography study. Contributions on other topics are, as ever, always welcome and guidelines for contributors can be found at the end of this volume.

Thanks are due to all the contributors to this volume for their hard work in generating the texts and illustrations and particularly to Peter Davey and Ruud Stam who organised the clay pipe summaries and helped with their preparation for publication. Finally, particular thanks are due to Susie White, who has not only manipulated many of the illustrations to improve them but also worked so hard in designing and setting this volume to achieve its high quality layout and finish.

David A. Higgins
Principal Editor

The Civic Company's Briar Pattern Book

by Peter Davey

Introduction

A briar pattern book that had originally belonged to the Civic Company of London was presented to the National Pipe Archive by Mr John Adler in September 2008 (Accession Number LIVNP:2010.20; Figure 1). The book consists of a hard-board, loose-leaf binder containing 51 numbered pages of pipe drawings. The binder measures approximately 400mm by 265mm. On the inside front cover there is a pasted in label (Figure 2) which reads:

> *Kalamazoo Loose leaf Account Books. Guarantee. Subject to fair wear and tear the mechanism and hemp thongs of this binder are guaranteed for SEVEN YEARS from this date provided that all sheets, indexes etc. used in it bear the Kalamazoo water-mark. Manufactured by Morland and Impey Ltd, 62 Coleman Street, London EC. Head Office & Factory – KALAMAZOO WORKS, BIRMINGHAM.*

***Figure 1**:Photograph of the outer cover of pattern book (photograph by S. D. White).*

***Figure 2:** Label on the inside cover of the pattern book (photograph by P. J. Davey).*

In the spaces provided at the bottom of the label a reference number: 50766, size: 4 and the date: 10 May 1918 have been added in ink. Otherwise there are no other identifying marks on the cover or on the pages of drawings.

The sheets of paper containing the drawings are around 316mm by 241mm and in most cases are embossed in italic script along one side with the name: Montgolfier, St.-Marcel-les-Annonay. They have each been folded around a strip of strong paper on the left-hand side and then gathered together between the boards of the binder and held in place with hemp thongs and metal clips along the spine. A single sheet of finer paper with the words 'LA BRUYÈRE' printed on it lies loose between pages 41 and 42.

The 51 numbered pages of drawings include images of 220 pipes and pipe related items on one side of each sheet only (the right). A majority of the drawings, 179 in all, are well executed in pencil with shaded highlights. They are normally laid out generously with four to a page (Figure 3). They have usually been given a number and title in English and French, hand written in ink, together with a set of figures relating, apparently, to their dimensions. A further 41 drawings have been inserted into the original layout; these are almost all in simple outline, are far less well executed and are given titles only in English (Figure 4).

The purpose of the following paper is to describe the contents of the book, to discuss its dating, provenance and contents and to attempt to interpret its function and meaning within the production process.

The author has tried to verify, using published sources, as much as possible of what John Adler has told him about the industry in countless e-mails, telephone calls and conversations. Where sentences or paragraphs depend on John Adler's information alone, the initials JA have been placed in brackets at the end of each passage.

The Provenance of the Pattern Book and the Civic Company

The book was retrieved by John Adler from the Cadogan briar factory at Shoeburyness (Southend-on-Sea). It was in use at the Civic factory in Fulham Palace Road, Hammersmith until 1969 when, following a major restructuring of the production and distribution units in the industry, it was moved first to a turning factory at Homerton and then to the erstwhile Orlik factory in Shoeburyness (JA).

The London industry had its origins in France where, by 1848, briar was first used for making pipes on a commercial basis by the Comoy brothers at Saint Claude-sur-Bienne in the Jura. The advantages of the material for making good quality pipes were recognized in 1855 by the master pipe makers Ganneval, Bondier and Donninger

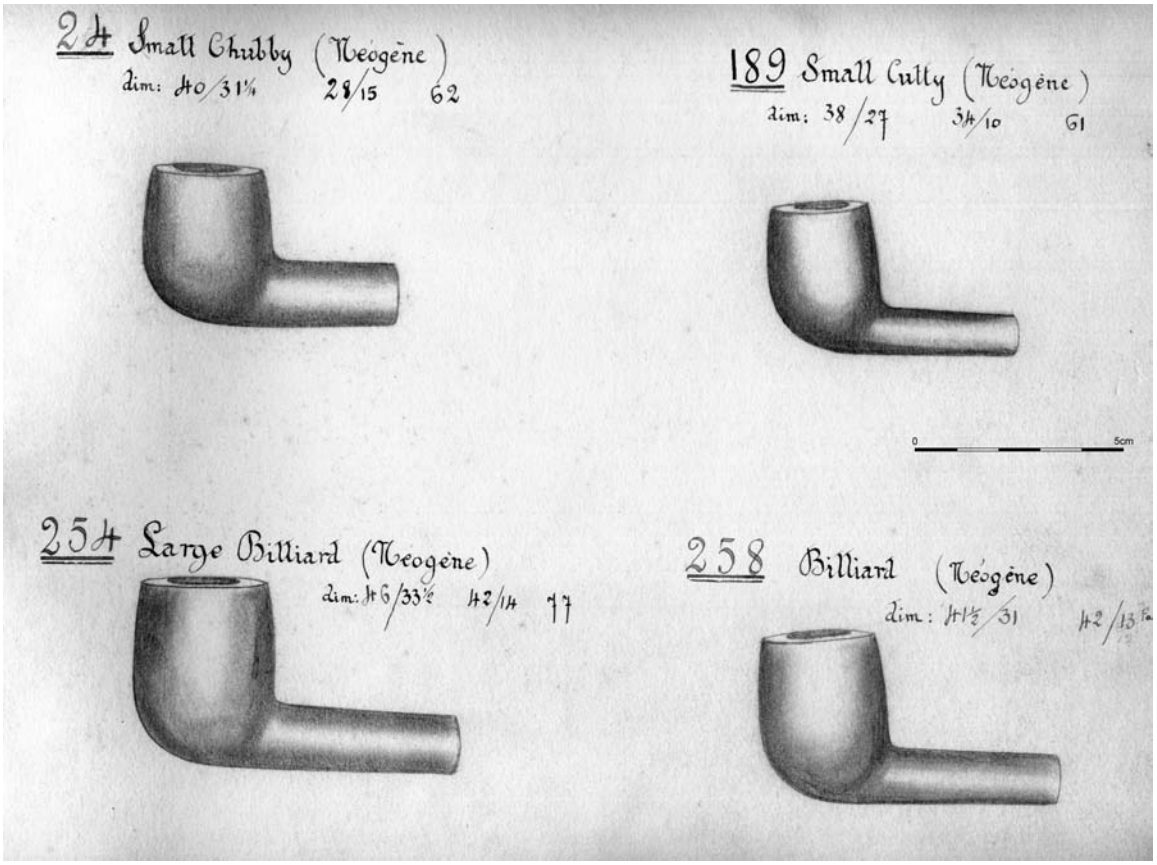


Figure 3: *Typical page of original drawings (Page 1) with scale added.*

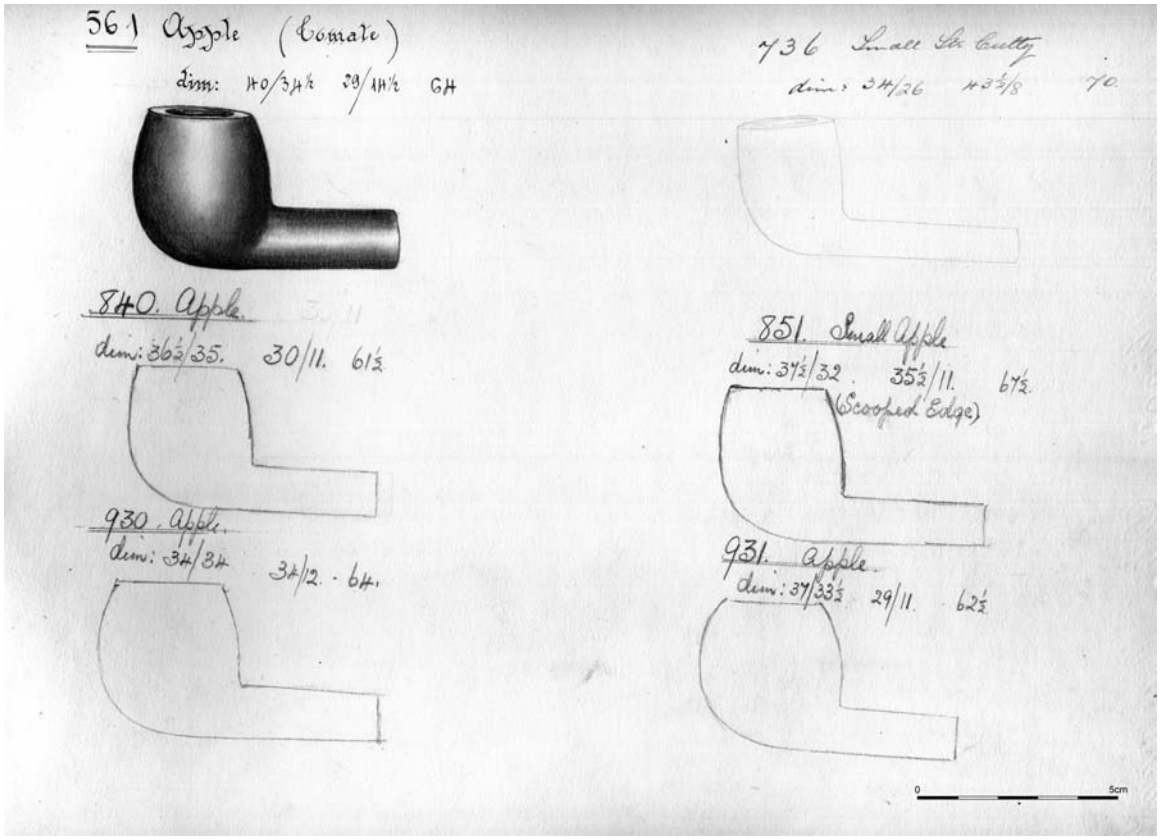


Figure 4: *Page of drawings showing later insertions (Page 7) with scale added.*

who extended the use of their existing meerschaum GBD trademark to include the highest quality briar production. The trade with England became important and during the second half of the nineteenth century a number of French makers established retail outlets in London. In addition a few set up factories there. The first appears to have been Emil Loewe who established a shop and workshop at 62 the Haymarket in 1856. He was followed in 1879 by Henri Comoy who built a small factory in Cambridge Circus. By the end of the century not only was there considerable French presence in London, but British based firms had begun to buy French factories (*cf London Trades' Directory* for 1895, 2199).

The histories of the Civic Company and of La Bruyère reflect this process and appear to be intimately linked with the retail giant Salmon & Gluckstein which, according to their 1899 *Price List*, were 'The Largest Tobacconists in the World' and had over 120 outlets in London and the Home Counties. They manufactured and sold tobacco and a wide range of related items, including briar pipes which are described as being made in France but finished in 'our London factories'. In 1901 the Imperial Tobacco Company was formed in response to an aggressive take over raid in Britain by American Tobacco and mainly involved the pooling of tobacco manufacturing outlets but also included closely related items such as briar pipes (House of Commons 1961). Imperial having soon realized that the Salmon & Gluckstein retail empire, which was vital to the whole tobacco trade in England, might also be the subject of an American takeover purchased it in January 1902 (Aldford 1973, 264).

In 1903 Imperial registered an 'Imperial' pipe and in 1906 formed a new section, The Imperial Tobacco Company (Fancy Goods Department) Ltd, with premises in Fulham Palace Road Hammersmith. The directors of this new section were Montague Salmon and Maurice Symons who had come from Salmon & Gluckstein (Cole 1976, 157). In the *London Trade's Directory* for 1915, under Briar Pipe Manufacturers, 'THE IMPERIAL TOBACCO CO. (OF GREAT BRITAIN & IRELAND) LTD.' is listed at 79, 81 and 83 Fulham Palace Road and a full-page advertisement for 'Civic High Grade Briars' in the *Tobacco World* for 1917 (page 378) also refers to Imperial's fancy goods department in Hammersmith.

The first published indication of a separate Civic Company is found in the 1921 Trade List in the Adler Collection. The date is in handwriting on the front cover and refers to previous publications in that, on the inside front cover, it states 'All previous Lists cancelled'. The list was published by the 'Civic Company, Limited of 79-83 Fulham Palace Road, Hammersmith, London, W.6. Eng.'. On the front cover it advertises the company as: 'manufacturers of the World famed "CIVIC" "IMPERIAL" and other well known brands of pipes'. According to an 'Agreement of Sale' in the Adler Collection the Civic Company had purchased Imperial's Fancy Goods Department on the 23rd April 1921 and on the 27th of April in the same year trade marks were also transferred. The agreement was back dated to 1st November 1920.

The next catalogue in the series includes an inserted copy of a letter to customers on company headed notepaper dated October 1922. In this letter the attention of the reader is drawn to a number of new lines such as the Imperial de Luxe London Made Pipe. These pipes are included in the catalogue and are not present in the earlier one, confirming its probable 1921 date. Two of the directors of the company listed on the headed notepaper are M. Salmon and M. Symons, thus making clear the continuity between Salmon & Gluckstein, the Imperial fancy goods department and Civic.

Meanwhile in St Claude in the Jura a London-based consortium bought up the business of a local briar maker Lucien Morand and, in June 1908, formed a new company La Bruyère S.A. Morand retained a 40% stake in the new company and was engaged as manager. Overall control was in the hands of five English people including Montague Salmon, Maurice Symons and James Frederick Gold, the name of the latter also appearing as a director on the 1922 Civic headed notepaper (Cole 1976, 157). La Bruyère registered in France a La Bruyère pipe in 1908 and a Civic pipe in 1910, this being the earliest reference to the name so far located (Cole 1976, 166). Initially a factory was rented but in June 1909 the company moved to its home in St Blaise, a small hamlet just outside St Claude (Figure 5).

The close connection between La Bruyère and Civic is therefore clear. They were separate companies but owned substantially by the same people. For example in 1916, J. F. Gold took over as chairman of La Bruyère and in 1925 its Board consisted of Salmon, Simons and the local manager Frederic Haug (Cole 1976, 159).

In 1928, in response to very difficult trading conditions following the depression, there was a major restructuring of briar production in Britain with the formation of Cadogan Investments Ltd, often referred to as 'the merger'. This brought together Oppenheimer Pipes, together with its subsidiaries in France, Canada and the USA and Civic with its French 'subsidiary' La Bruyère, and the following year Comoys with its French and American subsidiaries. Civic already owned Loewe Pipes (JA).

In summary, in March 1921 the Civic Company purchased the Imperial Tobacco Company's Fancy Good Department that had come to it in 1902 with the purchase of Salmon & Gluckstein. La Bruyère was almost certainly created in 1908 to enable Imperial to control its own source of French briars.

The Date of the Pattern Book

The cover is clearly dated the 10th of May 1918. The drawings it contains might, theoretically, be old at the time they were inserted into the cover or, alternatively, they

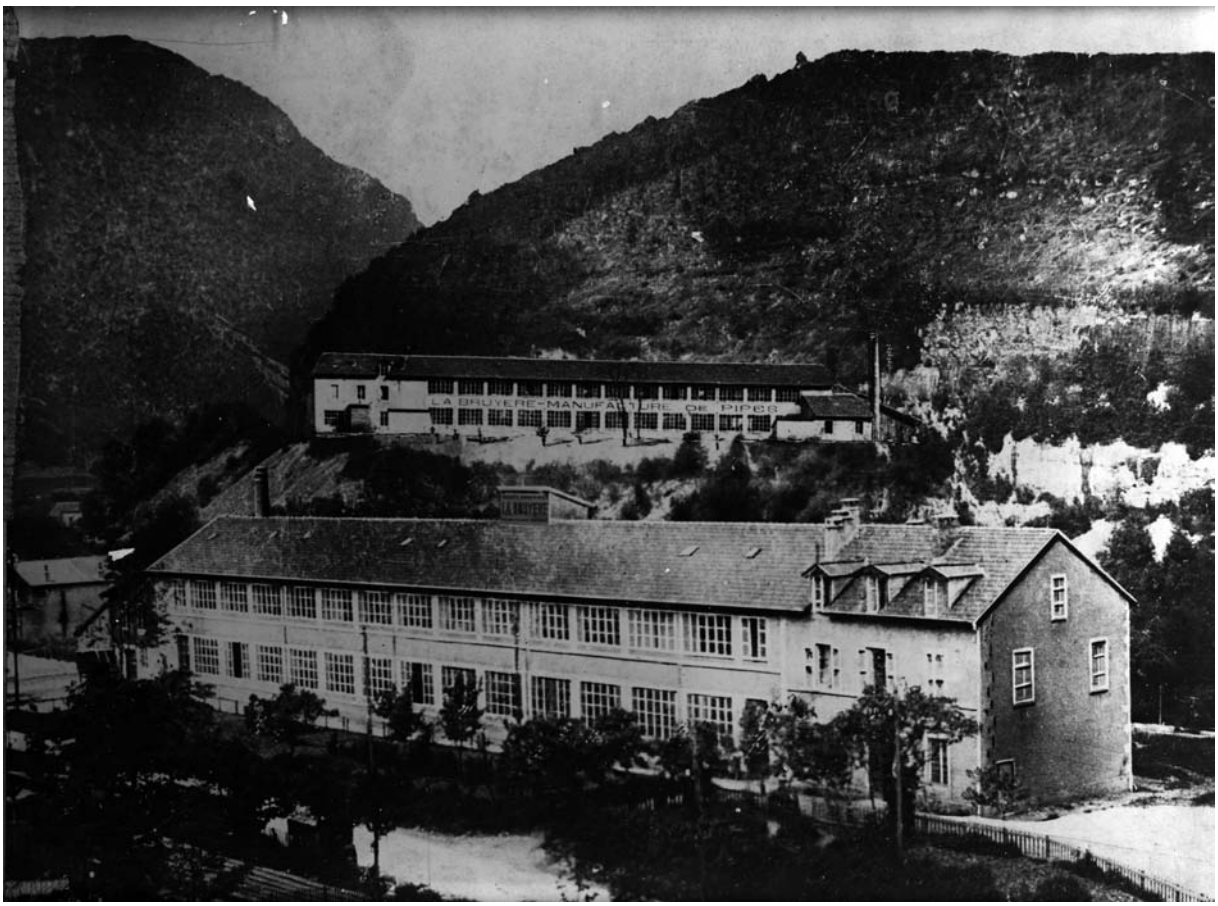


Figure 5: *The La Bruyère factory at St Blaise, just outside St Claude-sur-Bienne, Jura in* c*1920 (photograph courtesy of the John Adler Archive).*

might have been produced later and placed in an older cover. There are a number of pieces of internal evidence which may assist this discussion. First, the earliest of a number of amendments is dated 25th April 1919, less than a year after the purchase of the cover. The seven dated amendments between 1919 and 1921 are in the same fine English hand that writes the number one in simple form and does not cross the sevens. In contrast the 'original' ink writing of the names and dimensions is clearly continental. This would suggest that the drawings, which are on French paper, were brought to England before April 1919 and, given the provenance of the cover, after May 1918. The newer drawings were very probably inserted after 1921. In fact some had already been inserted before the publication of the 1922 catalogue. For example in 1921 there are no Prince designs for sale, yet in 1922 there are six which have been placed at the bottom of the pages of photographs of the individual lines. All four Prince designs have been inserted into the pattern book on page 10. The one illustrated in 1922 appears to be the 'small prince' number 824. It is not clear for how long new drawings continued to the added to the book, but the range of drawing and lettering styles suggests that they were not all inserted by the same people at the same time.

Very few of the models can be dated. Few of the designs were registered, underlining the lack of innovation shown in the selection for the book. Calabash was registered by Sina & Cie in 1900 but according to Benoit de Liege (2006, 2) demand was destroyed by the 1914-18 war. Chubby was registered by Ropp in 1904. Ropp's Golfer of 1914 may have stimulated production of the Golf Club and Golf Pipe in the Civic book (Cole 1976, 165-6). It is difficult to guess when in the public life of President Kruger of South Africa (1883-1900) the pipe of his name was first designed; it is possible that it might have commemorated his death in 1904. He, himself, is known to have smoked a GBD pipe. The drawings in the book may have been made quite early in the century and sent to England. If that is the case it seems rather coincidental that the date of the book's purchase and that of the first amendment are within a year of each other.

On balance, therefore, it seems most likely that the book was assembled in England in 1918 or early in 1919 with a selection of model drawings and dimensions provided by La Bruyère. The occasion for doing this might well have been the decision to form a separate company out of Imperial and that this company would be cutting briar bowls in its London factory.

The Pattern Book in the Briar Production Process

Briar is the lignotuber, or upper part of the swollen root system of *Erica arborea* (tree heather), which is a shrub or small tree growing up to 6 or 7 metres high in the Mediterranean region (Bonnier and Leyens 1982,

202; Polunin and Huxley 1965, 139 and Plate 121). The formation of the lignotubers appears to have evolved as a protective system against fire damage. The roots contain within them all the cells necessary to produce new stems, leaves and flowers quickly after a fire that has completed destroyed the plant above ground (Paula and Ojeda 2006; James 2008).

The swollen root, usually referred to in the trade as the burl, which is just below ground, is dug up and split into two vertically. It is then covered with branches to keep it moist and transferred to a mill for the tannin to be boiled out. It is then cut into blocks called (in French and English) *ébauchons* (meaning 'rough-out'). Once the soft centre of the root and any imperfections have been removed the cutter then attempts to make the biggest, and most expensive, blocks possible from the remaining burl. The blocks are then dried to approximately 30% moisture, sorted by size and put into standard sized sacks called bales. Thus, a bale contains progressively fewer *ébauchons* as their size increases (JA).

The bales of briar are then shipped to the pipe manufacturer who normally retained 10% of the purchase price against quality control. For example if an *ébauchon* has any faults which meant that it should have been cut down to a smaller size or if there is cracking showing that it had been shipped too wet, the value of the amount of briar involved would be deducted from the retainer. On arrival at the manufacturer the blocks are dried further down to 9% moisture. If the briar is dried to below this level it starts to produce dust. If left moister it does not turn well and tears (JA).

Once dried the blocks are sorted for pipe shape. The sorter will have half cut burl blocks as a guide and will try to get the biggest pipe from each piece taking into account any imperfections. An industry standard *ébauchon* chart defined the differing shapes and sizes of the blocks (Figure 6). The sorters in the *ébauchonnage* quickly learned which pipe models could be made from which class of *ébauchons* and threw the blocks into numbered hoppers from where the cutters could retrieve them as needed (JA). The standard forms of *ébauchon* block were:

CP	Cutty Petit
CT	Cutty Fort
MF	Marseilles Fort
R	Rélé
M	Marseilles
CM	Cutty Marseilles
CMF	Cutty Marseilles Fort
Carré	Cubic block
Tige	Stem

The blocks were first trimmed to a standard *ébauchon* size and then cut into shape using a sequence of belt driven lathes (Figure 7). It is at this point that the pattern book came into play. The tool setter would use the dimensions given in the chart for a specific model in order to adjust

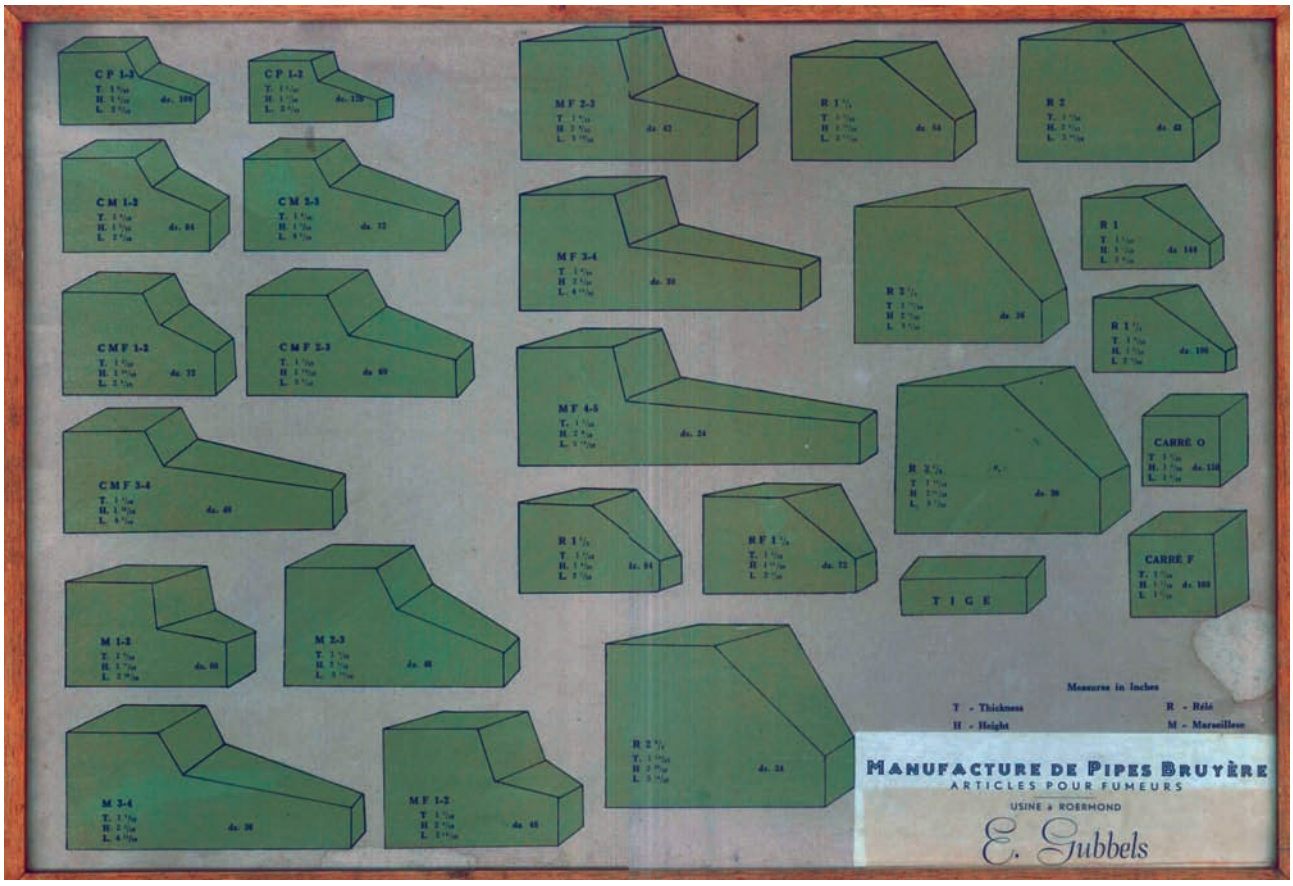


Figure 6: Ebauchon *chart at the E Gubbels factory at Roermond in the Netherlands (photography by Marc van Vlodrop).*

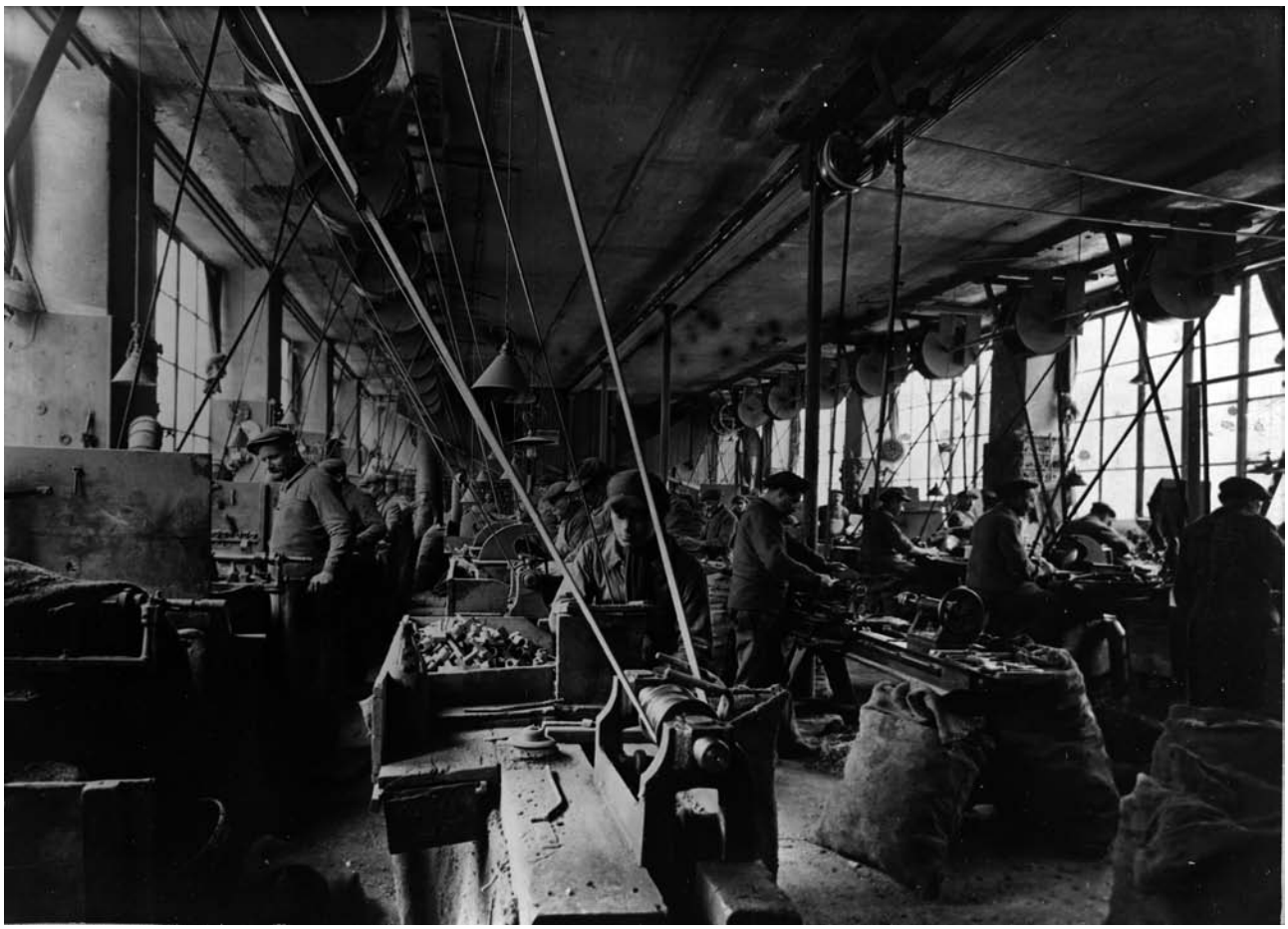


Figure 7: *Belt driven lathes turning bowls at the La Bruyère factory* c*1920 (photograph courtesy of the John Adler Archive).*

precisely the series of lathes needed for the production of that model. For example the production of a bent billiard very similar to No. 65^{L} (Page 35) involved a first lathe to cut the upper part of the bowl followed by a second to remove the wood around the stem and a third to remove most of the remaining excess (Figure 8). This left a small amount of wood to be removed by hand using revolving steel cutters from between the bowl and the stem before the pipe was ready to be polished, bored, polished again and stained, and a mouthpiece attached. It would then be ready for packing and despatch. When a new design was agreed its form and dimension would be added to the book. Any amendment to an original design was also marked in the book (Figure 9). The book became more or less redundant with the introduction of Zuckermann machines after 1980 which turned the bowls in one process using a pattern. It did, however, retain the precise dimensions required for each model and could be referred to in order to resolve disputes.

The Drawings

The 51 pages of drawings include a total of 220 pipes and related items. Of these 179 are 'original' in that they are carefully drawn and shaded in pencil and numbered and named in ink in the same hand throughout *(cf* Figure 3). The shading is skilfully done and with an eye to chiaroscuro so that the central part of the bowl and front of the stem are much lighter than the rest. One of these, a Long Flat Billiard (733), has been duplicated on different pages. The pipes are not numbered consecutively but are normally grouped by model type. Thus, for example, page 38 contains four 'Hungarian' designs numbered 292, 293, 397 and 609. One of the drawings on page 51 is of a stopper (Culot: 675) for the Captain Warren pipe (674) and there are three cigarette holders in the form of pipes (360-363, 369). The lowest numbered drawing is 18 and the highest 735.

The New Drawings

A further 41 pipe drawings, the majority of which are in pencil and outline only, have been added by inserting them into the existing pages (*cf* Figure 4). The original layout was quite generous of space with, normally, four drawings to a page so in most cases it seems to have been possible to add new drawings to pages containing similar or related designs. For example pages 18 to 22 contain designs involving the descriptor 'Dublin'. Four new Dublin designs have been added, one on page 19, two on page 20 and one on page 21. The lowest numbered of the new drawings is 554 and the highest 972.

The inserted drawings are in pencil, have titles in English (with one exception: 297) and the dimensions are in the same format at the original entries. They have not all been

Figure 8: *Five stages in the production of a bent billiard pipe, as viewed from the side (left) and above (right). The actual objects are in the National Pipe Archive (LIVNP:2010.19; photographs by S. D. White).*

drawn in the same manner or labelled in the same hand. Four of the inserted pencil drawings are done using a fine pencil and are in a steady hand. The labelling is in a thin brown ink, in the same 'educated' writing that made the earliest dimension amendments (see below). With eight exceptions the new drawings are in outline only. Their names are written in pencil in a rather unsteady, cursive hand; a few are written in capitals. When they are shaded this is carried out quite crudely but with an attempt at highlighting the curved surface of the pipe nearest to the viewer, as was the case in the original drawings.

The Models

In the descriptions that are written alongside each model a fundamental distinction can be seen between pipes with straight stems and those that are bent. In the former the pipe stem is roughly parallel to the rim of the bowl. In the latter the stem is 'bent' upwards at an angle of around 45°. The first 28 pages in the book consist of straight stemmed pipes in a variety of designs; the most important being, Billiard, Dublin, Cad, French, Cornet, Apple, Cutty, Chubby and Squatter (Figure 10). The final straight form (733) has been placed on its own on Page 28. A new sheet (Page 29) has been used to show the first four bent designs which then occupy all of pages 29 to 40. They also occur regularly throughout the final 11 pages of the book. The main designs in this group are simply called bent with some additional descriptor; for example 'small flat bent', 'oval bent' or 'bent chubby'. The other main bent designs are Billiard, Hungarian, Calabash and Well (Figure 11). In addition, there are a number of more unusual designs often involving only a single example of each. Good examples of these are Cavalier, Captain Warren, Brosely, Kruger, Golf Club, Golf Pipe, and Gaiter (Figures 10 and 11). A number of designs are for cigarette holders. Three are midget versions of full-sized smoking pipes and are so described: Midget Cad, Midget Cornet and Midget Dublin heel.

The Dimensions

With the exception of three drawings of miniature pipes (360-63, 369) for which only the diameter of the *perçage* (bore) is given and one un-numbered and untitled drawing on the final page, for the majority of pipes there are three sets of numbers, described as dim: (dimensions), written beneath each drawing, in the same ink and hand (e.g., Figures 3, 4 and 9). These dimensions are in millimetres and are referred to hereafter as D1, D2 and D3. In all but three examples (683, the 'straight oval') D1 consists of two or three numbers separated by an oblique stroke (D1A, D1B, D1C). The second set of dimensions, D2, with the exception of a stopper (675) and the three miniatures and untitled drawing already noted, also includes numbers with one, two and three elements (D2A, D2B, D2C). Seven numbers are on their own, two of which are preceded by an oblique stroke. In 177 cases there are two elements and in 31 cases there are three elements to D2. The final dimension is left blank in 20 instances but in the remaining 200 entries there is a single figure (D3).

The values, range and average of the dimensions are as follows:

D1A	30 and	79;	average 44.19
D1B	22 and	44;	average 35.53
D1C	23 and	33;	average 27.00
D2A	12 and	96;	average 37.88

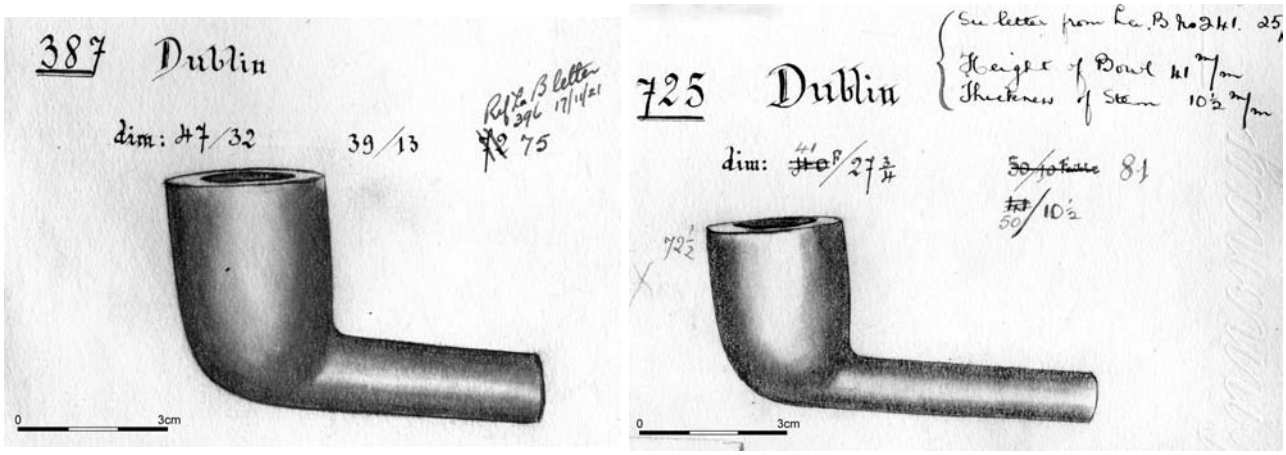


Figure 9: *Examples of alterations and annotations in the pattern book (Page 19 No. 387; Page 20 No. 725).*

D2B 8 and 26; average 13.77
D2C 8¾ and 13; average 10.54
D3 34 and 138; average 79.23

In most individual cases D1A is greater than D1B and C; D2A is always greater than D2B and D2B than D2C. With two exceptions D3 is always greater than D1A or any of the other dimensions.

Amendments to the Dimensions

In 18 cases one or more of the dimensions has been altered by crossing out a number and inserting a new one in its place. Fifteen of the amendments consist, in effect, of the correction of a single figure, though in two cases both of the original group have been crossed out, one altered and the other restated as it had been. In case of the two drawings numbered 733 all of the original dimensions have been deleted and radically different ones inserted. In one case all of the figures in D1 and D2 have been crossed out and restated, one of each group having been altered.

Eight of the alterations also contain an additional dated note, in the same hand and ink, referring to correspondence with 'La B'. For example, in the case of the Dublin Cutty (387) D3 has been altered from 79 to 78. Alongside the alteration is written: 'Ref La B Letter 17/11/21'. The dates of these alterations range from April 1919 to November 1921 (Figure 9).

The Meaning of the Dimensions

The fact that almost all of the drawings include dimensions, that some are accurate to one quarter of a millimetre and that very small amendments of plus or minus one were felt to be necessary, is an indication of their significance to the production process. But what does each element signify? There is no key to the book which explains what measurements are indicated by each figure. There is one piece of internal evidence which directly explains two of the figures. A note added in the same hand to the amendments of the dimensions of the Dublin model (725) states: 'See letter from La B No 241 25/4/19. Height of bowl 41mm Thickness of stem 10½mm'. The three sets of figures: 40F/27¾ 50/10 and 81 have been amended to 41/27¾ 50/10½ and 81. Thus the first figure in D1 is the height of the bowl and the second figure in D2 is the thickness of the stem. This additional note also confirms the previous assumption that the figures are in millimetres (Figure 9).

Using this information and comparing, especially, the most extreme figures with the drawings themselves it is possible to infer the meaning of the rest of the figures that are given. Perhaps the simplest is D3 which is almost always the largest given for any one drawing. The highest values are those for pipes described as 'long flats' which, from the drawings, have the longest stems, often more than 100mm long. In contrast pipes described as 'short', such as the Small Short French (745) have much lower values for D3, around 65mm. But the rather larger values given to pipes with visibly short stems, such as the Well (608) or the Hungarian Allemande (562) indicated that the figure does not denote the length of the stem itself. This third dimension only fits with the proportions of the drawings if it refers to the overall length of the pipes as a whole, including bowl and stem. It provides, thus, an absolute figure for the minimum overall length of the *ébuachon* from which it would be cut.

The second set of figures (D2) does appear, however, to refer specifically to the stem. The second dimension (D2B) is certainly stem width, as stated in the 1919 correction. The third element appears necessary only when the stem of the pipe is not symmetric in cross section. Thus the second and third elements in D2 for a pipe such as the Dublin Flat Stem (650) are 16½ and 13. This would appear to indicate first the width of the stem and then its thickness. In all 31 cases in which there are three elements to this dimension the stem can be seen to be asymmetric in cross-section. For examples Nos. 199 and 318, both 'flat bents' in English, are described in the French as *oeuf tige plate*; in other words it is the stem which is flat. The D2 dimensions for these pipes are: 33/16/12 and 31/14½/11

respectively. Where the cross-section is diamond shaped, as in the cad group (eg 219, 381-3, 402 etc) where the maximum width in both dimensions are the same, only a single figure is needed.

This, then, brings the discussion to the issue of what the first element in D2 refers to. Detailed examination of the drawings in comparison with the figures strongly suggests that it is the length of the stem from the point at which it departs from the bowl. This appears to be confirmed by the figures given for the calabash pipes (175, 238, 239) where the profile of the stem forms a continuous u-shaped curve with that of the bowl. In these cases only a single figure, which refers to the cross-sectional diameter of the stem, is given. The same applies to two of the cornet designs (244, 407) and the Bottle Shape (575).

Finally, the dimensions given in the first group of figures (D1) all seem to relate to the bowl itself. The first, as has already been established, gives the height of the bowl. The second almost certainly provides its diameter. In the case of the three occasions when a third dimension is given, the bowls are described as 'oval'. In cross section their bowls are ovoid. Thus a dimension is needed to represent both the width and breadth of the bowls in a horizontal plane, as they are not symmetric. The pipes concerned are two oval cads (580, 581) and a Straight Oval (683). It is clear from the drawings, when compared with the dimensions given, that it is the maximum diameter that is given. For example Apple (688) has D1 of 40/37; the diameter of the mouth of the rim at the same scale is approximately 27mm. Similarly the majority of cads have a pronounced widening in the middle of the bowl; Small Cad (19A) has a D1 of 40/34 with a rim diameter of around 25mm. This is even more obvious in the case of the squatters which are by definition short and fat in the middle. In a majority of these designs the second element of D1 is greater than the first. For example the Prince Squatter (790) has a D1 of 32/39 with a rim diameter of about 23mm and the Small Prince Squatter (827) has 30½/39 and a rim diameter of around 21mm.

That this second figure is the width of the bowl at its widest point is emphasized by the third figure given in the few cases of pipes described as oval. The Oval Bent Cad (580) has a D1 of 50/42/35 and the Oval Cad (581) is 46/39/33. In both cases the second figure clearly relates to the maximum width of the bowl measured from front to back along the long-section of the pipe, whilst the third figure is its width measured from left to right. This latter figure is the only one that cannot be seen in a two dimensional drawing and is only necessary because the bowl is not symmetric in horizontal section.

Comparison of the drawings and the dimensions strongly suggests that they have been drawn to be life size. Any variation between a measurement of one dimension on the drawing itself, compared with the dimension given in the figures beneath the drawing can usually be explained by the pipe in the drawing having been tilted slightly towards the observer so that the opening into the bowl can be seen at the rim. This is true for a majority of the drawings. In rare cases, such as the Squatter (185) the pipe has been rotated away from the observer so that the underneath of the bowl or stem can be seen.

What this all amounts to is that the first dimension provides the height and maximum width of the bowl, the second the length and thickness of the stem and the third the overall length of the pipe. These very precise measurements were clearly necessary in order to set the lathes correctly and provide a consistent product.

The Main Pipe Forms Present in the Pattern Book

Using, initially, the English names the main forms are as follows:

The Straight Forms (Figure 10)
In the straight forms the stem is set at approximately right angles to the vertical axis of the bowl so that the pipe lies easily on a flat surface. There are 164 examples in all. The most common named model families are: Billiard, Dublin, Cad, French, Chubby, Apple, Cutty, Cornet and Squatter, with quite a few individual designs. Some of the forms such as cad and cornet are so distinctive that they can be very easily distinguished from each other at a glance. Others, though probably equally self-evident to smokers, are less obvious to an external observer. Most of the model types can, however, be distinctively identified with reference to the relationship between their height and maximum width, in other words using just two of the dimensions given for each bowl. If these measurements are plotted out against each other and simple linear regressions drawn which show how tall and thin or short and fat each type is, the smaller models can be discriminated quite easily (Figure 12). The larger pipes are more difficult (Figure 13).

Cad (Figure 10, Nos. 390, 187) The cad is, perhaps the most distinctive of the more common straight pipes. There are 18 original designs and 3 later ones. The pipes are generally quite small and short. The widest point of the bowl is roughly two thirds up. The sides slope sharply inwards to a narrow rim and the lower part of the bowl also tapers towards the stem, giving a distinctively bi-conical form. The junction between the two parts of the bowl is sharply defined and usually marked by thin beading all around it. The stems are diamond shaped in cross-section. The four models named Rhodesian (e.g., 187) appear to be by types of cad. They tend to be wider for their height than the rest of the cads, but not bigger all round as suggested by Cole (1998). One is bent (No. 607).

Cornet (Figure 10, No. 244) The six cornets illustrated, all as original drawings, are set out on pages 23 and 24. A single cornet shaped cigarette holder (362-3) is placed with the other midgets on page 43. Two later drawings, named Fullhorn (807) or Full Horn (770) which are very similar in design to the cornets have been inserted, one

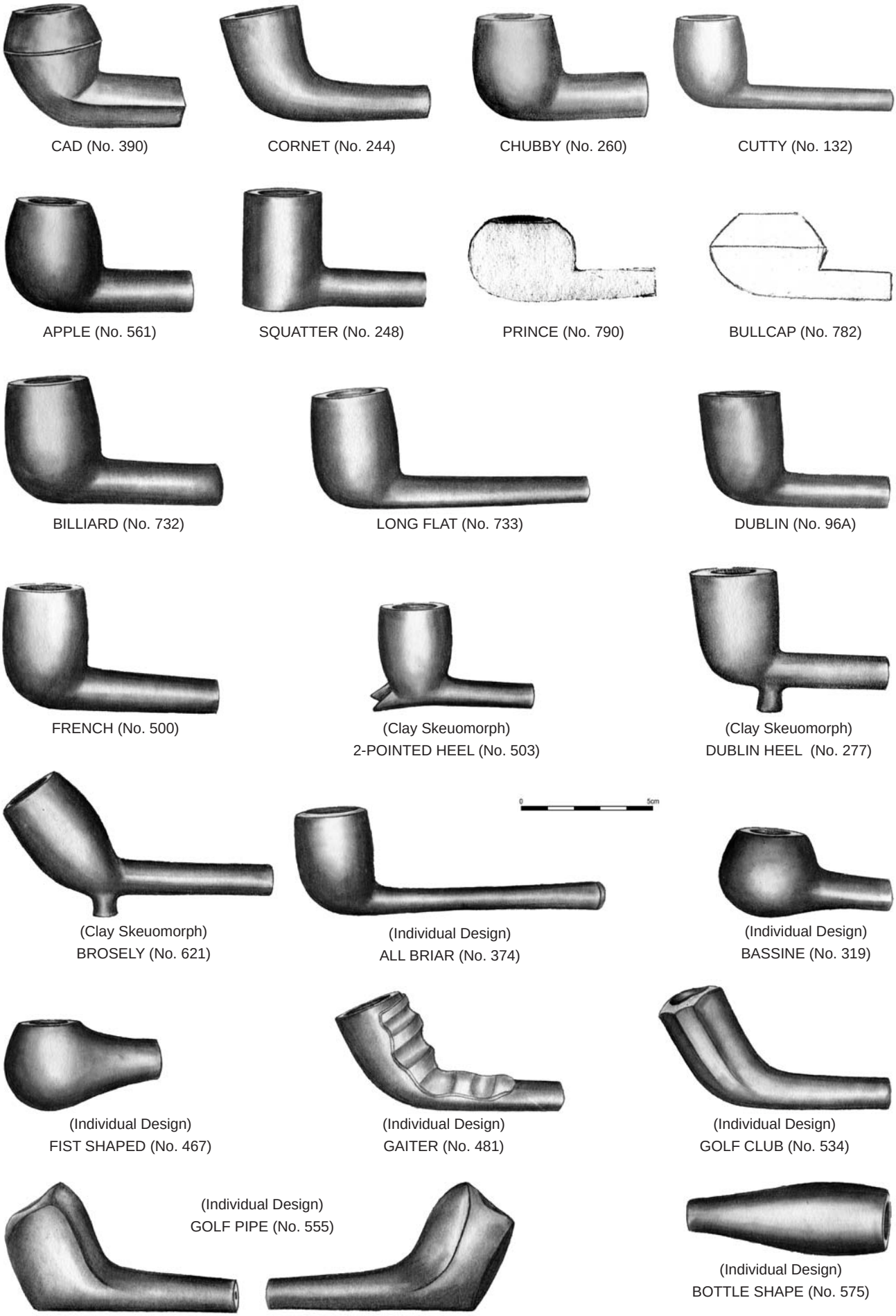


Figure 10: *Straight Forms (pipes at half size).*

each on pages 23 and 24 respectively. The cornets are quite small and narrow. The cornet shape is distinctive because the widest point of the bowl is at the rim. The bowl, which is slightly forward leaning, tapers smoothly towards a short stem. Compared with most of the other straight forms the upper profile where the bowl joins the stem has no sharp angle in it.

Chubby (Figure 10, No. 260) There are 10 chubby designs, two of which are bent. Even at a casual glance the chubbies are generally wider compared with their height than most other straight-stemmed pipes. Although not especially short their average height and width is the same. Their front and back profiles taper slightly towards the rim. The overall squat effect is enhanced by the thickness of the stem which is markedly greater than in the other straight forms.

Cutty (Figure 10, No. 132) The cutties are shorter and narrower than the rest; they have the longest stem length and are only shorter overall than the billiards because of the effect of the group of especially 'long flat' billiards. The cutties also have by far the narrowest stems.

Apple (Figure 10, No. 561) The apple designs have shorter and even wider bowls than the chubbies and the profiles taper towards the rim more markedly. The profile facing away from the smoker, in particular, is often strongly convex. Overall the pipe is short compared with the other forms.

Squatter (Figure 10, No. 248) The three original drawings of this form include one, on page 51, that is untitled and lacking dimensions (185, 248); there is a single inserted drawing (806). This straight form has parallel sides and a flat bottom. The squatter could sit upright on a flat surface such as a table.

Prince (Figure 10, No. 790) Four examples of this design occur as new drawings inserted into page 10 to join two apple models with which they are quite similar. Their position on the graph (Figure 12) shows them to be consistently shorter and wider for their height than the apples. Their outer profiles are even more curvaceous. Two of the designs are also designated as squatters. They are flattened underneath so as to be able to stand on a flat surface. The name appears to refer to the Duke of Windsor and to have been popular in the 1920s (Cole 1998).

Bullcap (Figure 10, No. 782) All four bullcap designs are also new drawings placed at the end of the book on the final page (51). The form is a very squat version of a cad. The widest point of the bowl profile is near the middle and it tapers sharply inwards both towards rim and stem.

Billiard (Figure 10, No. 732) The billiard is the most important form overall with 27 original drawings and five later ones. It probably derives its name from the table ball game as the pipe, when viewed by the smoker appears similar to the view of a billiard cue as it strikes a ball. Ten of the drawings are of bent billiards (*cf* below). The model called Albert is a billiard with a flat stem.

Long Flat (Figure 10, No. 733) The long flats are billiards with long and flattened stems and are usually illustrated with them. For example No. 733 is placed alongside the Straight Billiard (No. 732).

Dublin (Figure 10, No. 96A) There are 18 Dublin pipes in the original drawings and five later ones. Whilst some are difficult to separate from the billiard range with confidence, they almost all tend to have a more upright, nearly vertical profiles facing the smoker, with the other profile leaning away somewhat. The graph shows that they are generally taller for their width than the other forms, but the most extreme examples include the height of the spur in that of the bowl. There is normally no tendency for the sides of the pipes to taper at the rim, as is common amongst the billiards. In fact the majority are wider at the rim than anywhere else. They also seem rather more crudely made with thick walls. They exhibit many of the variables seen in other groups with larger and smaller examples and ones with flat stems and square stems. Six of the pipes have pronounced heels and appear to derive their form from late nineteenth century clay pipes when Irish and British makers were producing very similar, crudely made shapes designed principally for the labourer market.

French (Figure 10, No. 500) It is difficult to see any difference between the French designs and the billiards. Their sizes and proportions are similar and they are all described as *néogène* in French. It is possible that the briar used to make them is French in origin or that some detail of their finish, for example the treatment of the inside of the rim, may be different. But such variations are not discernible in the pattern book.

Clay Skeuomorphs (Figure 10, Nos. 503, 277 and 621) One of the models is specifically described as 'Clay two pointed heels' (No. 503). Five of the Dublin models with pronounced heels appear to be copying clay forms. A model described as Large 2 Heels (No. 550) is a version of No. 503 with a more open mouth which explains its designation Dublin in French. A further Pointed Heel form (No. 359) is similar. The Brosely (No. 621) is a clear reference to the important pipe making centre in Shropshire and the form is certainly clay in origin.

Other Individual Designs (Figure 10, Nos. 374, 319, 467, 489, 534, 555 and 575) A small number of individual straight designs may be described as straying somewhat from the norms already discussed. The All Briar (in French the *tout bois Néogène*) is the only example for which a separate mouthpiece would not be needed (No. 374). Its general form is that of a small billiard. The Bassine (No. 319) is an extremely squat and lop-sided version of an apple. The remaining five designs the Fist Shape (No. 467), Gaiter (No. 489), Golf Club (No. 534), Golf Pipe (No. 555) and Bottle Shape (No. 575) are quite distinctive.

MED. BENT (No. 18)

LARGE FLAT BENT (No. 183)

FLAT BENT (No. 199)

LARGE BENT BILLIARD (No. 257)

BENT CHUBBY (No. 25)

BENT CUTTY (No. 259)

HUNGARIAN (No. 397)

FLAT HUNGARIAN (No. 509)

HUNGARIAN ALLEM. (No. 442)

CALABASH (No. 238)

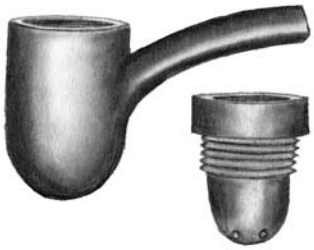
WELL (No. 274)

MED. PRESIDENT (No. 57)

KRUGER (No. 563)

MED. CAVALIER (No. 320)

CAVALIER (No. 488)



CAPTAIN WARREN (No. 674) with CULOT (No. 675) for 674

Figure 11: *Bent Forms (pipes at half size).*

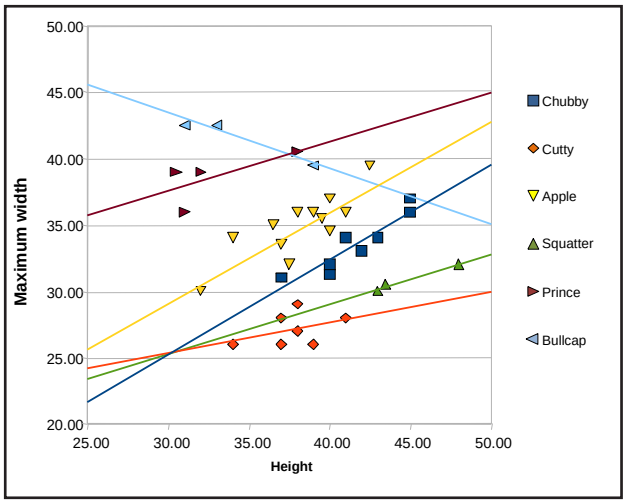


Figure 12: *Graph and simple linear regression diagram showing the relationship between height and maximum width of the bowls of the smaller straight briars.*

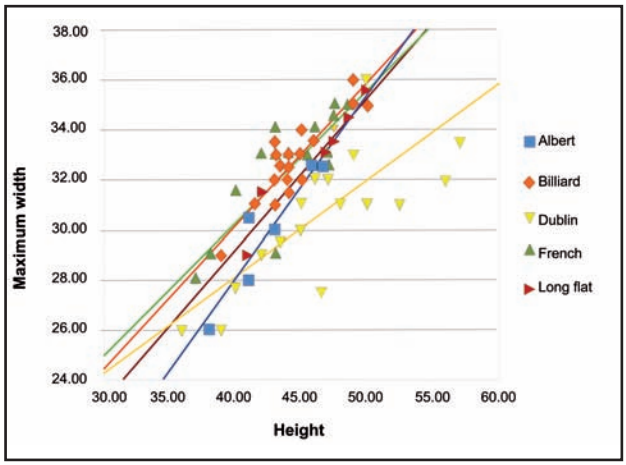


Figure 13: *Graph and simple linear regression diagram showing the relationship between height and maximum width of the bowls of the larger straight briars.*

The Bent Forms (Figure 11)
In all there are 55 bent forms illustrated. Their defining characteristic is that the stems are set at around 45° to horizontal. The main designations are: Bent, Hungarian, Calabash and Well, in addition to bent versions of some of the normally straight forms.

Bent (Figure 11, Nos. 18, 183, 199, 257, 25 and 259) Fifteen of the forms are designated as bents with no other proper name (18, 39, 183, 199, 318, 339, 370, 405, 452, 466, 480, 482, 600, 610 and 724). The word is qualified by adjectives describing the size and stem shape such as Medium Bent (18), Large Flat Bent (183) or Stout Square Bent (339). There are also 10 bent billiards, two bent cads, two bent chubbies, one bent cutty and one pipe described as a Bent Dublin which is actually straight (Page 22, No. 643).

Hungarian (Figure 11, Nos. 397, 509 and 442) Nine different Hungarian models are included in the book (292, 293, 397, 442, 509, 609, 646, 647 and 649). They are characterised by having parallel-sided bowls, stems that are bent quite a long way towards the bowl and external profiles that are smoothly curved. In many cases the stems reach almost the same height as the bowls. Seven of the series are illustrated together on pages 38 and 39. The remaining two drawings represent more extreme examples of the type. The first (509), described as a 'fat Hungarian' is extremely squat with a flattened base, which explains why it is illustrated on a page (41) with three squatters. The bowl of the second (442), described as 'Hungarian allem.', is extremely tall - at 74mm high, one of the largest pipes in the book.

Calabash (Figure 11, No. 238) There are three Calabash pipes (175, 238 and 239). The widest point of the bowl is at the rim. The bowl then tapers evenly towards the stem, which curves smoothly upwards, forming a u-shaped profile.

Well (Figure 11, No. 274) Five pipe drawings are described as Well (265, 274, 600, 608 and 644). They are different from the Hungarian as both front and back profiles of the bowl taper inwards. They are generally short.

Other Individual Designs A few of the bent designs are a little more unusual. Two of the designs, Nos. 57 and 58, are described as President (e.g., Figure 11). They are placed on Page 33 between the chubbies and the wells. The form is squat and rounded, similar to the wells but the bent stem is continuously curved in the manner of the Calabash. It is unclear to which president they refer. The Kruger (Figure 11, No. 563) is a little similar to a Hungarian but with a very exaggeratedly splayed base of the bowl. In French it is called *Tulipe*; apparently the historical reference only resonated in Britain. There are two examples of the Cavalier both involving the bowl being attached to the stem at some distance along it in order to provide space for a sump to collect and dispose of waste. One (Figure 11, No. 320) has a stem bent to the more or less usual angle. The other (Figure 11, No. 488; described in French as *Oeuf sur branche* - egg on branch) is unusual in that its stem is vertical and parallel to the long axis of the bowl. The Captain Warren has a curved bent stem which is attached to the bowl about half way up it (Figure 11, No. 674). It is the only pipe illustrated with a screw lining (Figure 11, No. 675).

Differences Between the French and English Names

The different ways in which French and English producers and consumers thought about their pipes and used names that are, at first sight, equivalent is of interest not only for cultural reasons but also to make more clear some of the most important distinctions between types of pipe. In some cases, where the form is especially distinctive, a single translation is consistently applied. Thus, the French *Haïti* is always translated Cad. The choice of Haïti as a name reflects the importance to France of

tobacco production in its West Indian colony (Baud 1991, 34-35). There is agreement that *Hongroise* equals Hungarian and *Rhodesian* Rhodesian. The Hungarian form provides a direct reference to the wide range of bent forms in meerschaum and wood for which that country is justly famous (Haider and Ridovics 2000, Plates VI-XVI). Rhodesian was probably chosen as a name because of the development of tobacco production in that English colony during the early years of the twentieth century (House of Commons 1961, 18). As with Haïti, only small quantities were involved, but as protectionism took hold of world economies, especially after the First World War, they became more significant. *Tomate* is almost always rendered as Apple, though in one case the English name is given as Tomato; ironically, in another, *Pomme* is also translated Apple. A few of the English names are given no translation. For example Calabash, Chubby and Dublin do not need translation, though in the case of the latter two models one is given on some occasions.

The most important French name for briar pipes is *néogène*, of which there are 54 examples compared with 27 for billiard in the original listing and so directly comparable. *Néogène* appears both more all-encompassing as a term and more logically applied. All the straight billiards are *néogène*, but the bent billiards are *oeuf*. All the straight cutties, all of the French, all the long flats, all but one of the Alberts and all but two of the straight chubbies which are not given a French name, are *néogène*. This term is never applied to bent pipes. The term *néogène* appears to have been an invention of the clay pipe maker Gambier of Givet in northern France. The earliest reference seems to be in an 1858 Parisian wholesaler's list that included Gambier models (A van Esveld *in litt* 23.12.2009). In the published 1868 catalogue pages 55 to 84 are given over to this type in a separate section of the book (Duco 1988). Gambier also employed other exotic sounding pseudo-scientific terms such as *magnésienne*, *Aristophane* and *taxile* which seem intended to liven interest in his plainest models (M. Garreau *in litt* 20.11.2009). *Néogène* became popular with other clay makers and was easily and extensively transferred to briars and meerschaums.

The principle straight pipe that is not included within this term is the Dublin of which there are 18 in the original drawings.

In the case of the bowl lining (675) only the French word (*Culot*) is given where the English would normally have been written.

Discussion

The book provides clear images and titles for over 200 pipes in all giving an indication of what was considered appropriate for the British market in around 1920 and of subsequent developments in styles right up to the 1960s. A number of questions can be suggested. First, what was the nature of the original selection of models in relation to what was available? Secondly, what sort of market is implied by the selection? Thirdly, do the newer models inserted in the book give an idea of changes in production and in the market after 1920?

The book contains 179 original drawings. The range of numbers involved suggests that only about one quarter (24%) of the available designs were copied out in order to provide a basic set for this particular pattern book to provide a basis for pipe production in London. The models included are generally rather basic ones. Some two thirds of the models are standard straight or bent forms such as billiard, cad, chubby, Dublin etc, the remaining third being more individual. For example of the 156 pipes represented with French names just over one third are *néogènes* and another third are the bent forms of *oeuf*, *Hongroise* and *boule*. Of the rest a majority appear to be different names given to very slight variations on the more common forms. For example the Bolton (400) is a rather upright billiard form and is named *néogène* in French and the two President models (57, 58) appear to be especially broad-based versions of the well form (*boule*). There are few exotic designs.

Looking at the pre-1918 pipe design registrations in St Claude only a chubby design, one of which was registered by Ropp in 1904, is included in the Civic book. It seems likely that the two golf models may be a response to Ropp's The Golfer registered in 1914. Otherwise the selection of pipes for the London factory appears to be very conservative and to consist largely of the lower value products.

The majority of the models whose drawings were inserted into the book at sometime after 1918 are revisions or new versions of existing ones. For example, five French designs and one billiard are inserted into pages 2, 4 and 5 between very similar forms with the same names and on page 7 a single Apple design is joined by four new ones. Of the 41 new drawings 31 are of existing forms: apple (7), billiard (5), French (5), Dublin (5), cad (3), long flat (2) Albert (1), cutty (1), squatter (1), tomato (1). The remaining 10, involving three different models, are the only ones that might represent innovation. There are three 'new' styles: Prince and Bullcap with four examples each and Full Horn with two.

A closer examination of the three new basic designs suggests that they represent a re-branding of existing ones and only a very modest element of innovation. The Full Horn designs are very close to the cornets and are placed on the same pages. The second of them to be included (770) is clearly equivalent to a cornet model as one of the original cornet drawings (333) has the number crossed out and the words 'now 770' placed after it in brackets. The only observable difference between these two designs and the existing cornets is in the name. The bullcap models, for example, are basically cads but are rather wider compared to their height than the average cad. In addition, one of them (782) has a double beading. The four prince designs are variants of the apple (*tomate*)

models, again rather wider on average than their height, and are placed on a page with two original apple drawings. These 'innovations' suggest that the designers believed that there was a market for much shorter and wider bowls than had previously been the norm.

Between 1918 and 1930 La Bruyère registered 63 new designs; none are represented in the Civic Book (Cole 1976, 170). This would tend to reinforce the impression that the London works continued to concentrate on 'bread and butter' production rather than the more specialist and expensive end of the market.

The Pattern Book Designs in Use

A clear idea of how the models illustrated in the pattern book functioned within the Civic Company can be obtained by studying how they feature in the 1921 *Trade List*. The nine full pages of advertisements group the pipes under brand names. Five pages are given to the Imperial and Civic brands. There are also smaller sections devoted to the 'Real French Briar', the 'Briar Pipe', the 'Charmer', 'Steel's Pipe, the 'KCB Pipe' and the 'Torino'. With the exception of what might be described as the more 'interesting' and 'artistic' models in the pattern book such as the cornet, Hungarian and calabash which are totally absent from the *List*, in the texts that accompany the brand photographs the same model names are used as are found in the pattern book. For example in the Torino section, billiards, Dublins, apples, cads, chubbies and a well are included, as well as bent billiards. The same range of models is also found on the KCB advertisement and in both Imperial pages. It is clear that the brand is not characterised by the models that are included but by a set of other variables including the country of origin of the briar root itself, the shape and material of the mouthpiece, the kind of mount that might be applied to the junction between briar stem and mouthpiece, and the overall finish. The price of each brand is also related to these variables and not to the size of the pipe. In other words, although the cutters took great care to get as many *ébauchon* blocks out of each root, the final price was much more influenced by these other factors.

Such differences are clearly reflected in the basic trade price per dozen given for each brand, showing that the Civic brand itself represented the highest quality of briar that was produced:

Real French Briars	11/-
Briar Pipes	12/-
The Charmer	15/-
Steel's Pipes	27/-
Imperial (Selected)	20/-
Imperial (Silver Mounted)	27/-
KCB	36/-
Torino	36/-
Civic	50/-
Civic (Special)	60/-

The way in which these variables operate can be seen by looking at Steel's Pipes, which has a drain built in the bottom of the bowl and is described as 'the first REALLY dry and cool smoking pipe ever invented'. Three prices are quoted:

> Good quality briar, vulcanite mouthpieces.....27/-
> Superior quality briar, vulcanite mouthpieces and hall-marked silver mount.....42/-
> Highest quality briar, best para vulcanite mouthpieces and flush fitting silver mounts.....60/-

Other terms that occur in the *Trade List* are not mentioned in the pattern book. Three apply to the mouthpieces themselves; they are: taper, saddle and army (Cole 1998). In the 'taper' the mouthpiece tapers evenly towards the smoker from its junction with the briar. In the 'saddle' a short stretch of mouthpiece is of the same diameter as the stem of the briar and then suddenly narrows almost to its minimum width. In the 'army' there is a similar short stretch of mouthpiece parallel to the stem and then a gentle taper to the smoker's end. As with the briar designs the form of the mouthpiece, by itself, does not seem to affect price.

A further useful comparison can be made between the Civic 1921 list and the recently republished Frankau catalogue of 1912 (Schrier 2009) which contains details of some 80 briar model types. Although this catalogue lists and illustrates a number of models named in the Civic pattern book such as Calabash, Captain Warren, Cavalier, Chubby, Cutty, Squatter and Well, the most common names such as Billiard, Dublin, French, Cad, Apple and Hungarian are absent. A perusal of the index shows that Frankau's name for cad is bulldog; the remaining terms are absent. This might suggest that the London Civic factory was to focus on mass production, leaving the more avant-guarde and expensive element to the French. It would be very interesting to see a complete list or equivalent pattern book that was in use in the La Bruyère factory in St Claude at the same time in order to assess how far this impression is true and to establish the production relationship between two factories under the same ownership.

The pattern book provides the building blocks for the Civic company's production in London. The brands that were marketed themselves depend on many other attributes, such as briar quality and origin, finishing techniques and packaging methods. The standards set by designs in the book were fundamental to the reputation of the company and its commercial success.

Future Research

Although the pattern book is a unique and important document in its own right, this brief study has raised a number of issues that require further work before the evolution of this industry can be fully understood.

First, a detailed history of the transfer of briar technologies to England by French companies in the second half of the

nineteenth century needs to be established. The process by which these French concerns were successively taken over by companies based in England should be further examined. Serious historical study could be applied to individual concerns such as Civic and the other Cadogan companies.

Secondly, the commercial relationship, between the briar makers and both the meerschaum and clay pipe industries is worth a more detailed examination. The London directories show that many of the firms were producing and selling pipes in all three materials. Even in the Frankau catalogue which is dominated by briar products, there are sections on asbestos, corn cob, myall wood, imitation meerschaum, cherry-wood and clay pipes (Schrier 2009, 146-159).

Finally, a comprehensive account of the terminologies in use throughout the briar pipe production trade would be valuable and greatly enhance future study.

Acknowledgements

John Adler, in giving the Pattern Book to the National Pipe Archive has provided not only the initial stimulus for this study but has also given much information derived from a lifetime in the industry, together with much welcome advice and access to his personal collection of papers and publications. The writing of this article would have been impossible without his generous and friendly advice for which I am very grateful. I would also like to thank Hilary Adler for making me welcome in her home and for her excellent cuisine.

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Appendix 1

The following table, which is arranged in pattern number order, is intended to provide a summary of all the data contained in the pattern book, except the drawings themselves. The columns are as follows (from left to right):

Page The page number; all of the pages are numbered in the top right-hand corner.

No. The unique number written alongside each drawing.

Name [English] The name of the model in English. As far as possible the original form of the name has been retained, including abbreviations and the use of upper and lower case lettering.

Dr. The original drawings are marked 'O' and the inserted drawings 'P'.

Name [French] The name of the model in French. As far as possible the original form of the name has been retained, including abbreviations, the use of upper and lower case lettering, the presence or absence of accents and the use of symbols.

Dim. 1, Dim. 2 and Dim. 3 The three sets of dimensions as originally written down (*cf* page 158); alterations are given in Comments column.

X An 'X' in this column indicates that a pencil cross has been placed against a drawing, probably to indicate that it should not be used again.

Comments This column is mainly given over to details of alterations to the original sets of dimensions and other amendments.

Page	No.	Name [English]	Dr.	Name [French]	Dim. 1	Dim. 2	Dim. 3	X	Comments
29	18	Medium bent	O	Oeuf	40/30	30/11	66		
14	19[A]	Small cad	O	Haïti	40/34	32/11	64		
1	24	Small Chubby	O	Néogène	40/31¼	28/15	62		
29	25	Bent Chubby	O	Oeuf	40/32	25/14½	65		
29	39	Giant bent	O	Oeuf	67/50	37/26	97		
25	52	Dublin Cutty	O	longues plate	41/28	55/9	85		
33	57	Med. President	O	président	44/34	24/16	66		
33	58	Small President	O	président	40/32	23/15	62		
41	59	Small flat tomato	O	Tomate	32/32	48/32	57	X	There is a small pencil cross against the left side of the bowl
35	63[L]	BENT BILLIARD	P		45½/35	35/15			There is a pencil number 611 to the bottom left of this outline pencil drawing
14	64	Cad	O	Haïti	47½/39	30/13	67		
23	90	Large Cornet	O	cornet	30/30[F]	40/14	80		
18	96[A]	Dublin	O		45/31	40/12	72		
14	99[A]	Medium cad	O	Haïti	43/37	30/12	65		
25	132	French cutty	O	Néogène cutty	37/28	55/8	82		
25	151	Medium french cutty	O	Neog. tige longue	38/29	67/10	98		
40	175	½ bent Calabash	O	demi courbe	50/36	15	74		
29	183	Large flat bent	O	Oeuf tige plate	51/38	19/14	78	X	
41	185	Squatter	O		48/32	40/13	75		
14	187	Rhodesian	O	Haïti	43/40	33/13	71	X	
1	189	Small Cutty	O	Néogène	38/27	34/10	61		
18	190	Small Cutty	O	Dublin	37/26	34/10	61		
21	191	Small Dublin heel	O	talon	36/26	34/10	61		
30	199	Flat Bent	O	Oeuf tige plate	44/34	33/16/12	73		
15	219	Small Cad	O	Haïti	37/31	28/10	56		
40	238	Calabash	O		53/38	15	84		
40	239	Calabash	O		47/34	14	70		
18	241	Dublin flat stem	O	Dublin plate	45/30	46/14/10	74		46 has been crossed out and replaced by 40
23	244	Cornet	O		46/30	12	76		
41	248	Squatter	O		43/30	40/13	70f		
1	254	Large Billiard	O	Néogène	46/33½	42/14	77		
18	255	Large Dublin	O	Dublin	49/33	42/12	76		76 has been crossed out and replaced by 78
21	256	Large dublin heel	O	talon	57/33½	42/12	76		76 has been crossed out and replaced by 78
30	257	Large Bent Billiard	O	Oeuf	46/34	38/14	76		
1	258	Billiard	O	Néogène	41½/31	42/13	73		The word 'faible' has been written between D2 and D3; 13 of D2 has been crossed out and replaced by 12 plus note "Ref La B letter 3521 ?25/5/??".
30	259	Bent Cutty	O	Oeuf	38/28	36/9½	66		
2	260	Straight Chubby	O	Néogène	41/34	28/16½	64		
25	262	Albert	O	Neog. plate petit bec	46/32½	52/13/10	85		
34	265	Well	O	Boule	44½/35	22½/19	67		
19	266	Small Dublin	O	Dublin	42/29	41/13	67½		

Page	No.	Name [English]	Dr.	Name [French]	Dim. 1	Dim. 2	Dim. 3	X	Comments
21	267	Small heel	O	talon	49/28	40/11	70		
26	268	Small Albert	O	Neog. tige plate	41/30½	51/13/10	84		
33	274	Well	O	Boule	39/31	22/18	63		
2	275	Medium Billiard	O	Néogène	43/33½	41/13	74		
22	277	Dublin heel	O	talon	56/32	40/12	74		
30	278	Medium bent billiard	O	Oeuf	43½/33	30½/13	69		
2	280	Small French	O	Néogène	39/29	40/10½	71		
26	284	Str. Billiard long stem	O	Neog. tige longues	43/33	52/13	86		
38	292	Medium Hungarian	O	Hongroise	46/31	22/16	63		
38	293	Small Hungarian	O	Hongroise	43/30	22/15	61		
23	297	Cornet flat stem	P	tige plate	46/30	40/14/10	74		
2	311	Small Albert	O	Néogène plate	41/28	35/14/10	63		
19	313	Large flat Dublin	O	Dublin plat	49/33	45/15/11	80		
31	318	Small flat bent	O	Oeuf tige plate	42½/32½	31/14½	67½		
42	319	Bassine	O		33/37	22/17/13	66	X	There is a small pencil cross against the left side of the bowl
42	320	Med. cavalier	O	cavalière	50/32	29/13	70		
23	333	Cornet	O		48/30½	42/13	81		No 333 crossed out and 'now 770' written in pencil in brackets after the name
13	334	Apple shape	O	Tomate	39/36	27/14	64		
42	334	Apple shape	O	Tomate	38/36	27/14	64		38/36 has been crossed out and replaced with 29/36
3	336	French Bill. ◊ stem	O	Néog. Tige ◊	49/35	36/13	73	X	
33	339	Stout square bent	O	Boule ◊	47½/41	23/14½	77		
42	359	Pointed heel	O	néog. penchée crochet	58/32½	56/12	93	X	
43	360-361	Midget cad	O	Fume - cigte - haïti					The words 'perçage foyer et tige 8mm' are added to the French name with no brackets around either
43	362-363	Midget cornet	O	fume - cig^{te}					The words 'perçage foyer et tige 8mm' are added to the French name but outside the normal brackets
43	365	Square straight	O	Néog. tige carrée	45/33½	30/18	74	X	
43	369	Midget dublin heel	O	fume - cig^{te}					The words 'perçage foyer tige 7½mm' are added to the French name but outside the normal brackets
44	370	Large Bent rimmed stem	O	Oeuf Bourrelet	60/43	50/25	100	X	
44	374	All Briar	O	tout bois néogène	42/30	90/11	118	X	
3	378	Large Str. Billiard	O	Néogène	49/36	44/14½	80		
3	383	Straight Billiard	O	Néogène	43/32	41/13	73		43 has been struck out and replaced by 42 and ?Ba...
3	384	Chubby	O	Néogène	41/34	29/15	64		
4	386	Square Straight	O	Néogène ◊	44/32	29/13	60	X	
19	387	Dublin	O		47/32	39/13	72		L: 72 crossed out and changed to 75 plus note: 'Ref La B Letter 17/11/21'
26	388	Dublin cutty	O		39/26	49/8	77½		
15	389	Large Cad	O	Haïti	55/44	33/15	73½		
15	390	Medium Cad	O	Haïti	47½/39	29/15	66		
15	391	Small Cad	O	Haïti	41/33	26/12½	60		
31	392	Bent Billiard	O	Oeuf	50/36½	36/16	78½		

Page	No.	Name [English]	Dr.	Name [French]	Dim. 1	Dim. 2	Dim. 3	X	Comments
38	397	Hungarian	O	hongroise chasse	50/34	22/18	65		
4	399	Medium Straight Bill.	O	Néogène	44/32	35/14	68		
26	400	Bolton	O	Néogène	41/31	68/10½	98		68 has been crossed out and replaced, in ink, by 63; 98 has also been crossed out and replaced, in ink, by 95
31	401	Bent Billiard	O	Oeuf	45/35	35/13	74		
16	402	Medium cad	O	haïti	45/37	28/13	62		
31	404	Bent Billiard	O	Oeuf	42/32	33/13½	69		
32	405	Large square bent	O	Oeuf ◊	48/36	35/13	78		78 has been crossed out and 76 inserted in ink
24	407	Cornet	O		45/31	13½	77½		
4	419	Straight Billiard	O	Néog.	45/32	45/14	78	X	
19	423	Dublin	O		46/32	45/12	79		
4	430	Albert small	O	Albert	38/26	29/13/8½	63		
44	442	Hungarian allem.	O	chasse allemande	74/34	32/16	57		
5	448	French chubby	O	néogène chubby	43/34	34/16	64		L: 64 has been struck out and replaced by 68 "Ref La letter No 3 30/11/21"
5	451	Straight Oval	O	foyer plat	38/29	31/14	69		
32	452	Oval bent	O	Oeuf foyer plat	41/28	22/16	67½		L: 16 has been crossed out and 14 inserted in ink. The 14 has then been crossed out and 16 replaced in a pale ink with note: 'Ref La B letter N° 3985 19/11/20'
32	458	Bent Chubby	O	Oeuf Chabot	45/37	28/17	73		
5	464	Small French	O	Néogène	39/29	33/10½	62		
32	466	Small round bent	O	Oeuf	40/30	25/11F	59		
44	467	Fist shape	O	Coup de poing	35/35	/15	58	X	
20	468	Dublin	O		41/28	41/9	71		
45	480	Large Bent	O	Oeuf penché	44/33	30/15	71	X	
45	482	Lge Bent saddle stem	O	Oeuf bourrelet douille	56/40¾	30/32	80	X	
45	488	Cavalier	O	Oeuf sur branche	47½/36	44/15½	59	X	
45	489	Gaiter	O	guètre	47/31	48/15/12	85	X	
5	494	Medium Billiard	O	Néogène	44/31½	44/13	76		
6	495	Large French	O	néogène	47½/35	45/14	81	X	
6	500	Large French	O	néogène	47/33	48/13½	82		
13	501	Chubby	O		42/33	34/16	67		
46	501	Chubby	O		42/33	34/16	67		
46	503	Clay 2 pointed heels	O	terre 2 crochet	40/28	32/10	60	X	
41	509	Flat hungarian	O	hongr. touriste plate	45/39	14/15	61		
27	514	Large French	O	Néogène	47½/34½	55/13	90		
16	517	Large Cad	O	Haïti	46½/39	34/14	73		
46	534	Golf club	O		58/35	45/13	90	X	
6	544	French flat stem	O	néog. Plate	43/33	52/14/11	85		
46	550	Large 2 heels	O	dublin 2 crochets	58/33½	44/13	78		
20	551	Square stem dublin	O	Dublin	50/31	38/12	73	X	
21	554	Thin Dublin/Slight Heel	P		46½/27½	57/9½			
47	555	Golf Pipe	O	pipe golf	49/39	55/12	92	X	There are two views of this pipe.

Page	No.	Name [English]	Dr.	Name [French]	Dim. 1	Dim. 2	Dim. 3	X	Comments
16	560	Fist shape	O	coup de poing	41/47	27/15	82		
7	561	Apple	O	Tomate	40/34½	29/14½	64		
47	561	Apple	O	Tomate	40/34½	29/14½	64		A /3 has been deleted after the 34½
47	562		O	Hung. allemande Chasse allem.	79/32	18/13	53		No English name
48	563	Kruger	O	Tulipe	53/35½	35/15	74		
16	574	Cad ½ bent	O	Haïti cintré	47½/39	28/12	67		67 has been crossed out and replaced by 65
48	575	Bottle shape	O	Forme Bouteille	75/29	/14	75	X	
48	580	Oval bent Cad	O	Poire, foyer oval	50/42/25	40/13	87	X	
48	581	Oval cad	O	haïti foyer oval	46/39/33	35/13	73	X	
6	588	Apple	O	Pomme	32/30	27/14	58		
24	598	Small cornet	O	petit cornet	34/22	27/10	34	X	
17	599	Cad	O	haïti	48/38	35/14	70		L: 35/14 has been crossed out and replaced with 33/14. The 14 has then been crossed out and replaced with13. This latter alteration in the same hand as a note: 'Ref letter to La... U627 - 21 17/7/19"
34	600	Small bent	O	petite boule	38/35	25/18	67		
49	604	French flat heel	O	Néog. talon plat	44/33	43/13	77	X	
8	605	Str. large bill.	O	néogène	49/39[f]	53/15	90		
35	606	Bent Billiard	O	Oeuf	52/37½	39/15½	81		
49	607	Rhodesian	O	Poire	38/40	28/13	77		
34	608	Well	O	Boule	41/36	17/16	63		
38	609	Hungarian	O	Hongroise	46/31	23/16	63		
35	610	Flat Bent	O	Oeuf plat	43/34	26/17/13½	64		
17	612	Cad	O	haïti	44½/35½	29/13	64		
17	613	Cad	O	haïti	48/41	34/14	73		
8	614	French flat stem	O	néog. plate	47/33	44/16/12	80		
8	615	French flat stem	O	néogène plate	47/32½	42/14/10	77		
8	616	French flat stem	O	néog. plate	43/29	41/14/10	73		
27	617	Long flat	O	Neog. long. plate	47½/33½	85/14/9	118		
27	618	Long flat	O	Neog. long. plate	48½/34½	105/14½/9½	138		105 has been replaced, in ink, by 103;
27	619	Long flat	O	Neog. long. plate	41/29	79/13/9	108		
49	621	Brosely	O		55/32	60/12	102	X	
9	624	Chubby	O	Néogène Boule	37/31	29/15	60		
49	625	Small square straight	O	petite néog. tige carrée	33/25	15/11	41½		
50	637	(Small) Rhodesian	O	(petite) rhodesian	42/47	22/15	69		
50	638	Str square Rhodesian	O	rhodesian droite	39/41	22/13	63		
22	643	Bent dublin heel	O	penetré talon	52½/31	55/11	93	X	
34	644	Well	O	Boule	45½/39	19/18½	69		
37	645	Well	O	Boule	44/35	21/18	66		
39	646	Hungarian	O	Hongroise	41/27½	17/16	54		
39	647	Hungarian	O	Hongroise	48/32	22/18	63		
39	649	Hungarian	O	Hongroise	54/34	24/18	65		
20	650	Dublin flat stem	O	dublin plat	47½/34	42/16½/13	80		
9	652	Albert	O	Néog. plate	43/30	41/13/9½	73		

Page	No.	Name [English]	Dr.	Name [French]	Dim. 1	Dim. 2	Dim. 3	X	Comments
17	654	Small cad	O	haïti	44/33	25/12½	59		
50	655	Cad, flat stem and bottom	O	Haïti tige & fond plat	44½/37	40/50/10	76		
9	662	Square Billiard	O	Néog. ◊	50/35	30/15	66		
50	674	Captain Warren	O		46/31	45/14/9	79		79 has been crossed out and replaced by 78
50	675	Culot for 674	O		40/13				
9	683	Straight Oval	O	néog. ovale	35½/32/23	27/14	60		
10	688	Apple	O	Tomate	40/37	33/12	70		
10	696	Apple	O	Tomate	41/36	33/17	70		
51	703	MODIFIED Cad Flat	P		38½/40½	38½/15½/12			Pencil drawing is shaded
51	703	Cad Albert	P		39½/42	39/16/12	81		Pencil drawing is shaded
11	710	Chubby	O		45/36	32/17?	74	X	
11	711	Straight Billiard	O	Néogène	44/33	44/14	75	X	
11	712	Med. str. billard	O	Néogène	43/31	37½/12½	68	X	
11	713	Straight billiard	O	Néogène	44/32½	37/13½	69	X	
12	714	Straight billiard	O	néogène	45/33	44½/14½	76	X	
35	715	Bent Billiard	O	Oeuf	45/34	34/13½	73	X	
12	721	Str. bill. flat bottom	O	néog. fond plat	45/34	42/13	75	X	
10	723	Lge Apple	P		42½/39½	33/15½	72½		
36	724	Flat bent	O	tige plate	44½/34	27/17/13	67	X	
20	725	Dublin	O		40^{F}/27¾	50/10	81		L: 1st two dimensions amended to 41/27¾ and 50/10½, the second pair in two stages. Note added: 'See letter from La B No 241 25/4/19. Height of bowl 41mm Thickness of stem 10½mm'. There is a small pencil cross against the left side of the bowl.
4	726	Lge Short French	P		48½/35	34/14½	69		
12	732	Straight billiard	O	Néogène	49/36	43/15½	82	X	
12	733	Long flat	O	néog. tige plate	47/33	71/14/9	104	X	L: Dimensions crossed out and 43½/31½, 14/9 and 108 inserted. Ref to letter 23/9/21 cf no 448 above; in same hand
28	733	Long flat bill.	O	neog. tige plate	47/33	71/14/9	104	X	L: all dimensions have been crossed out and replaced by '43½/31½ 14/9 108 Ref La B reply to Sept letter L635 23/9/21 all in same ink and fine hand.
13	734	Str. flat stem	O	néog. plate	43/33	43/14/10½	77	X	
5	735	French	P		64/34	43½/14¼			
13	735	Large billiard	O	néogène	46/33½	44/14	80	X	
7	736	Small Str Cutty	P		34/26	43½/8	70		The same hand as the insertion no 448 above
28	737	Small Dublin long stem	P		42/29	61/11	90		
28	738	Small Bill. long stem	P		39/29	60/10	90		
28	739	Small Apple	P		37/31	30/12	60		
10	740	Lge Prince	P		38/40½	31/13	71½		
10	741	Small tomato	P		39/33	25/11½	63		Title and dimensions writtenin ink in same hand as others in ink
5	744	Med Short French	P		45½/33	32½/14¼	65½		
4	745	Sm Short French	P		42/33	33/13½	65		

Page	No.	Name [English]	Dr.	Name [French]	Dim. 1	Dim. 2	Dim. 3	X	Comments
24	770	Full horn	P		46/31	58/13	89		
19	771	Long Thin Dublin	P		48/31	58/11			
20	776	Lge Dublin	P		50/36	45/15½	81		
2	779	Short Stem Billiard	P		43½/32½	32/14	62½		
51	782	BULLCAP	P		39/39½	30/12½	69½		
51	782	MODIFIED Bullcap Double Bead	P		33/42½	34½/10	77		
10	790	Prince Squatter	P		32/39	39/11			
41	806	Squatter	P		43½/30½	43/13			
23	807	Fullhorn Flat	O		46/31½	38/15¼	69½		
20	808	Thin Dublin	P		43½/29½	43/10½	72½		
2	809	Small French	P		40/31½	40/10	71½		
17	813	Sm Cad	P		41/33	30/11	63		Outline drawing slightly shaded
51	817	BULLCAP	P		31/42½	30/12			
10	824	Small Prince	P		31/36	26/10			
10	827	Small Prince Squatter	P		30½/39	27/10			
10	828	Apple	P		39½/35½	30/13¼			
36	830	BENT BILLIARD	P		42½/33	28½/14	61½		Shaded outline drawing
36	831	BENT BILLIARD	P		34/33½	35½/13½	69		Outline drawing
7	840	Apple	P		36½/35	36/11	61½		
7	851	Small Apple	P		37½/32	35½/11	67½		
51	864	Bullcap Beaded	P		33/42½	34½/10	77		
25	895	Albert	P		46½/32½	51/14/10			Shaded overall in pencil
7	930	Apple	P		34/34	34/12	64		
7	931	Apple	P		37/33½	29/11	62½		
27	970	Long Flat	P		50/35½	96/15½A 10½			Shaded overall in pencil
27	972	Sm Long Flat	P		42/31½	80/12½/8¾			Shaded overall in pencil
51		UN-NUMBERED, UNTITLED	O						A squatter type
NB X = pencil cross written alongside the drawing									