Fountain Pens for the Million

The History Of

Stewart

1905 - 2005



Stephen Hull



Foreword

It is some thirty years since the Writing Equipment Society (WES) was formed and Steve Hull's father was one of our first members, soon followed by the young Steve, already an avid collector of fountain pens and mechanical pencils. However, his interest extended well beyond collecting: he wanted to research the pens and the companies that made them many now forgotten. This was just what our infant Society wanted. Certainly we were collectors, traders and swappers, but above all we wanted to record and disseminate the sadlyneglected history and technology of writing instruments and their accessories. It is difficult to appreciate now just how little information was available in those early days. Today there are books by the dozen - many, it has to be said, listing 'who made what and when, rather than delving more deeply into design and company histories. Steve's approach was different. He wanted to know everything, spending many hundreds of hours scouring company records, archives and patents in order to supplement his extensive collections of advertising material and the pens themselves. Initially I was WES Journal Editor, so his material was priceless, and published on a regular basis to an appreciative membership. My wife, who typed up most of the articles, soon became quite an expert in reading his handwriting and even today he is still a frequent contributor to the Journal. But his total contribution to the Society has been much more than just a series of informed articles: he has always been the first point of call for any WES members needing information, particularly on English pens. It was for this endless help to the Journal and to members, given so freely over so many years, that he was recently elected to be one of our Hon Vice-Presidents.

With Steve's chosen specialisation in English pens, it was inevitable that Conway Stewart would hold his particular affection. These honest, dependable, ergonomic and elegant pens always had a loyal following in their heyday - I well remember my own from school days - and modern collectors just cannot get enough of these period items. Today of course the re-formed company has opted for the luxury market, as the pen and pencil middle-ground it once occupied has largely disappeared, but the functional (if admirably conservative) design, the quality manufacture, plus those attractively patterned and innovative materials, have all continued. Steve has worked with the new company as corporate historian, and also with the various study groups on Conway Stewart history. His records of the company are substantial, and I'm sure that one of the biggest problems in preparing this book will have been deciding just what to include or reject - if in doubt he would certainly include it! I can guarantee that the result will be detailed. authoritative and accurate. It will be a readable, informative and well-illustrated text providing the definitive reference on this company and its products. He would accept nothing less.

Preface

In September 1979 my brother gave my father, Frank, three old and, from memory, fairly nondescript vintage fountain pens for his birthday. At the time Dad was collecting stamps (British Commonwealth) and I was into cigarette lighters, having ceased collecting stamps (British Colonies 1953-1970) some years earlier. I sold most of my stamp collection in the 1980s, but recently and somewhat extravagantly (I should have used the money to buy pens!) re-purchased most of the QEII Colonies early definitive sets, in a fit of nostalgia!

Dad, who started to slowly build a collection of pens from 1979, was one of the original members of the Writing Equipment Society (WES) and I would often go up to London with him to attend meetings. I particularly remember the super lunches that the then-chairman, Norris Gilbert, used to lay on at his flat opposite Regent's Park before each AGM. I also vividly remember a Parker Mandarin Senior changing hands at one of these early meetings for £2.50!

By 1980 these were only two small books available on collecting fountain pens, both published in the USA, by Cliff Lawrence (1977) and Stuart Schneider & Roberta Etta (1980), though these were soon followed up by more substantial books by Glenn Bowen (Collectible Fountain Pens, 1982) and another by Cliff & Judy Lawrence. I clearly remember reading these two from cover-to-cover, several times, whilst cooped up in my hotel room during a business trip to war-torn Beirut in January 1983. Lawrence, for many years, also produced a super monthly Pen Fanciers' Club Magazine. Not surprisingly, none of these publications included much, if anything, relating to English pens.

In 1980, and now living in Preston, Lancashire, I decided to join my father in collecting pens. He would regularly trawl the antiques shops and markets in Wiltshire and Somerset, whilst I searched in the Preston area. Even in those days there was stiff competition - a vicar would often beat Dad to pens at the markets in Bath, and there was a chap in Preston who often seemed to get to the pens before I did; we never did meet either of these elusive characters!

Because so little was known or published about pens in those days, except through the US publications (and, soon, through the Journals of the Writing Equipment Society), we decided to concentrate our collecting around the US 'Big Four' (Parker, Waterman's, Sheaffer and Wahl Eversharp) and, because pens were so plentiful, would generally pass up on pens by other manufacturers. Thus, while we could generally buy quality pens for as little as £2 each (and solid gold examples for around £30!), we must have passed on some fantastic Swans, Onotos and Conway Stewarts (about which we knew little), among others, though I do remember being unable to resist a super oversize Conway Stewart tan Duro at £2.75.

As an example of how little we knew about pens in those early days, it is worth recounting the time (in 1980) we were passing a long-established stationer's shop in Preston, which was displaying a large selection of old fountain pens in the window. Wow!, we thought, looking at a wonderful, huge black pen, thinking it to be a Waterman's Patrician, but later discovering it was actually a Waterman's 20 Safety! On another occasion we bought an engine-turned sterling stylo, not having the faintest idea what it was (it turned out to be an AT Cross). And we always got really excited at finding early Mabie Todd & Bard Swans (even plain black examples), again not having any clear idea of their age or history.

By 1984 I'd joined the WES in my own right and was soon writing articles for the Journal, a particular favourite being the history of Mabie Todd, over several journals, not published elsewhere and based on original research. Soon after the death of my mother in 1985, before which she'd insisted that Dad reimburse me for any outlay on pens (including two fantastic Waterman's 20S Safety pens in March 1983 at less than £100 for the two!), Dad started to lose interest in pens and I gradually took over the collection, which numbered some 2,000 pens, pencils and stylos (450 Parker, 250 Waterman's, 400 Mabie Todd, 300 Conway Stewart, 250 De La Rue and 350 'others') by the end of 1987.

In 1989 I decided to specialise on the English 'Big Three' (Mabie Todd/Swan, De La Rue/Onoto and Conway Stewart) and proceeded to slowly dispose of most of the rest of the collection (excluding any make of stylo/ink pencil and early Parker Duofolds), including, much to my regret now, pens made by many of the smaller English manufacturers. At around the same time (in 1989) Andy Lambrou published his excellent first book – Fountain Pens, Vintage And Modern - which, for the first time in any pen book, gave some prominence to English pen manufacturers.

By early 1994 the collection still numbered some 2,000 items, now made up of 550 Mabie Todd, 650 Conway Stewart, 600 De La Rue, 100 or so stylos/ink pencils and 100 Parker, the rest of the Parkers and all of the Waterman's and 'others' having been sold or traded away in the intervening six years.

It was Edward Eldred's photocopied, spirally-bound Waterman's in England (c1993) volume, a compilation of extracts and adverts (and not just Waterman's) taken from the stationery trade press that gave me the idea and the impetus, during the mid-1990s, to concentrate on research (at the expense of collecting, to some extent). I spent a great deal of time and money during this period seeking out and obtaining photocopies of items from the stationery trade press, including some fantastic details of lesser-known English pen makers (who no-one will have heard of before!), as well as a wealth of information on the Big Three and imported pens. The results of this

Preface

extensive research bore fruit in the many articles published in the WES Journals from the mid-1990s (to the present), as well as in my book, co-authored with Mike Bryan, on The Neptune Pen: A History of Burge Warren & Ridgley (2009).

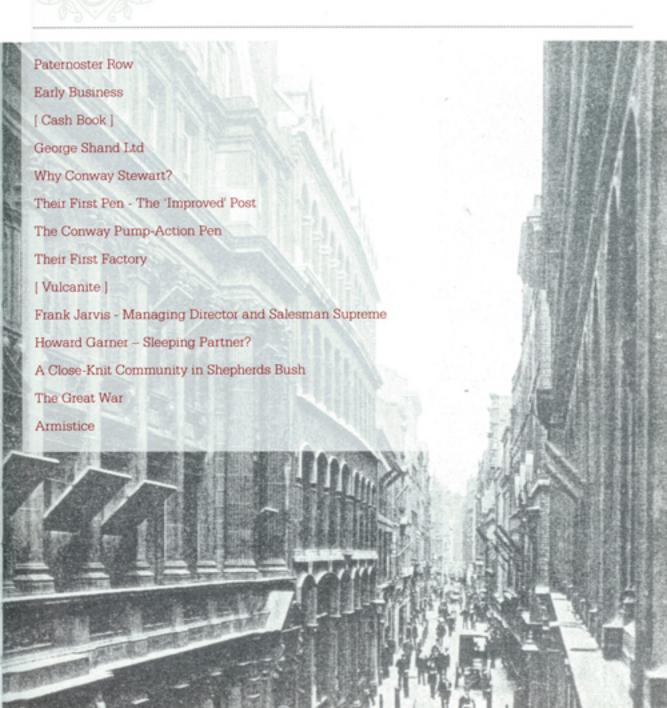
During 1999 and 2000 I wrote a series of monographs (about 90 in all - Potted Histories, Pen Pioneers, Pen Classics, Pen Mysteries, Pen Scandals, Pen Curiosities etc) that I intended to publish in an all-embracing, definitive history (including imports) of the English Fountain Pen Industry, 1875-1975. However, after penning some 60,000 words, I seem to have experienced writer's block in mid-2000 when trying to put together a detailed (and very important) peecis, using several sources, of the circumstances surrounding the sale of Thomas De La Rue & Co Ltd in 1921. This book remains unfinished, though several of the monographs (in extended form) have appeared in recent WES Journals, and I intend getting back to it in the years ahead (after books on the Onoto and Mabie Todd).

I was made redundant in May 2004 and decided to make a start on a book detailing the history of Conway Stewart. I managed to get quite a bit of detail written but, short of cash, I found another job and did not have the time to dedicate to the book. Another redundancy in April 2009 spurred me on again to get the book completed. I hope you enjoy the result!

Chapter 1: 1905-1918

The Early Years





Their First Factory

At around the time of the company's incorporation as a limited liability company in 1909, when the authorised capital consisted of 4000 ordinary £1 shares and 4000 preference shares of £1, Frank Jarvis's brother, Stanley, joined the firm on a full-time basis. Some time after this, in around 1912, Conway Stewart occupied a small factory in Southwark Street, London SE1. Southwark Street is only a stone's throw from Weston Street, Bermondsey, SE1, the home of Mabie Todd & Co's first London factory (c1906).

The factory was at 23 Southwark Street, listed in 1916 as the location of Thames Side Pen Works Ltd, a company that was almost certainly wholly or partly owned by Conway Stewart. Here a small staff was accommodated to make and assemble pens, presumably in the same styles and for the same type of customer that they had handled earlier. Production continued here until at least 1921.

Offices were still maintained in the City, though by 1912 they had moved from 34 to 33 Paternoster Row, the former then occupied by WJ May Ltd, postcard publishers who, certainly by 1916, were also involved in the manufacture and sale of fountain pens.

Conway Stewart's faith in their syringe-filler/pump-action pen, which had been much discredited when they first took it on, paid off and it reportedly became one of the "most satisfactory lines of pens ever put on the market". It was the probably the first of the range of pens to be made at the Southwark Street factory and, with others in the firm's range, was targeted at the masses; advertising particular styles of pens at a higher price was not Conway Stewart's field. 10/6 (half a guinea), in those days a great deal of money, was the recognised retail price for a 'standard' fountain pen. Unlike their major competitors, they believed that their expertise lay in manufacturing pens for and supplying them in bulk to the trade, rather than by advertising and retailing their own products, a policy they rigidly adhered to until 1919.

▶ The Thames Side Pen Works, c1912







Vulcanite

The early pens made for and by Conway Stewart were, of course, made from vulcanite, or hard rubber as it is known in North America, supplied to the firm in rod or tube form from companies such as Morgan Ebonite of Battersea.

The raw material was obtained as a gum or 'milk' oozing from slits in the bark of the Para rubber tree and collected in the form of a 'biscuit' on a clay mould. The biscuit was cut open and stripped off the mould and hung up to dry. It was then soaked in hot water for about two weeks and passed through rolling mills driven by 15 hp engines. These machines chewed up the rubber whilst cold water was forced into the mass so that any dirt and impurities were removed. After washing, the rubber was kept in heating chambers at 135°F for two weeks. It was then rolled again in a machine with one heated roll rotating faster than the other which had the effect of 'stripping' out the rubber, so that the sulphur, which was added at this stage, could work well in. Finally, the mixture passed through sheeting rolls, reducing it to a thickness of 1/32" and then wound around a drum and wrapped in a cotton cloth, which kept it clean and prevented the layers sticking together. The resultant sheets were then cut into strips and rolled onto spindles, or 'arbours', of the same size as that required for the different internal diameters of the fountain pens' caps and barrels. Tin foil was rolled over the rubber to prevent the sulphur boiling out in the subsequent vulcanising process, which took place when the arbours were laid on a layer of soapstone in a steel box that was then run into an oven. The proportion of rubber by weight was generally about 33% and the oven temperature around 300°C, but these depended on the quality of vulcanite required. The resultant vulcanite was then stripped off the arbours by a special machine.

Because of the difficult nature of vulcanite, which is a little softer than that used in electrical work, automatic turning tools could not be used and, therefore, only hand tools were used and even the 'screwing' tools had to be hand-directed. Any tool marks, caused by turning on the lathe, were removed by polishing on a carpet-wheel buff, which was covered with rouge and kept slightly damp.

The assembled pens were tested for leaks by immersing them in water and attaching a rubber tube and bulb. By squeezing the bulb, air was forced into the pen and any leaks were revealed by streams of fine bubbles rising in the water.



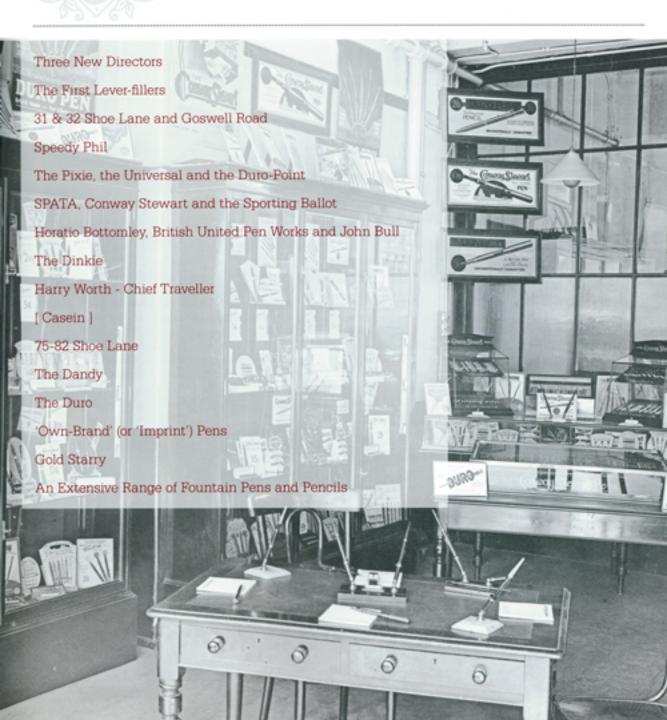


Vulcanite rod and tubes (usually 3° 6°, 106mm in length), showing the internal and external diameters



Chapter 2: 1919-1929 The Roaring Twenties





The First Lever-Fillers



- ▲ Early straight-end lever-fillers, mostly of US-manufacture, c1916-1920 from left: The Corway Stewart Lever (cap imprint); no imprint, ball-clip ornately inscibed Conway Stewart & Co; The Corway Stewart De Luxe; Lever Self-Filling Pen with Marx Finstone's Pat Aug 28 1917 inscribed on lever; Universal No 373 Lever Pen; Universal No 369 Lever Pen; The Corway Stewart No 206 with roller-ball clip, shoulder inscribed US Pat 6.2.14 & 11.3.14; The Corway Stewart No 382; The Corway Stewart No 281
- Early paddle-end lever-fillers, possibly of US-manufacture, c1919-1921
 from top: no imprint (with earliest style of Conway Stewart fixed sideclip); Universal No 370 Lever Pen; No 575M with 14KT Eclipse nib



The First Lever-Fillers





▲ Extracts from a 12-sided Conway Stewart leaflet (6" x 1.3"), c1919, that fitted into the cardboard box of an early Conway Stewart pen. Note the patent date, Aug 28 1917 (registered in the USA by Marx Finstone), on the lever in the illustration of the Lever Self-Filling pen. Also note that the syringe-filler is now referred to as the Pump Self-Filling Pen, an example of which, imprinted 'The Conway Stewart No 1', is known





Casein

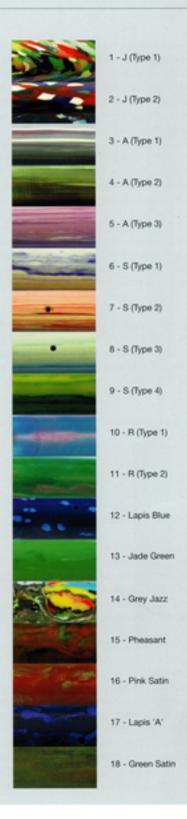
Casein, a by-product of milk, was supplied by a specialist plastics' manufacturer, British Xylonite (BX), in rods (as opposed to tubes) that had been produced in one of two ways: either by "a straightforward extrusion process, either in mono or bicolour, any colour configuration obviously being longitudinal. The other method involved making a block. Part processed thin sheet, pieces and beads of casein were loaded into a press and subjected to a pressure of two tons per square inch. The resultant block, weighing about 2.5 hundredweight was then cut into rods using a single ring cutter, a fairly lengthy process, but necessarily so bearing in mind the soft nature of the part-processed casein. By varying the thickness, colour, size and amounts of the unseasoned material going into the block, a considerable and attractive variety of colour configurations could be obtained and, of course, quite different from those obtained by extrusion. The rod from both processes was seasoned (hardened) by immersion in dilute formaldehyde before being despatched to customers who bored out the centre of the rod and profiled and otherwise machined the exterior to their own requirements."

BX's production of casein rod ceased in the late-1950s. Those rods that were cut from a block and were "the more attractive, had an overall mottled configuration in simple or multi-colour mixtures. A thin, black or other wiggly longitudinal line in the rod would indicate the presence of thin sheet material in the make-up of the block. The main feature of this type of rod was the almost iridescent colour effects obtained by the colour technician in the knowledgeable blending of pigments and other agents."

The rod was cut to length, drilled three times to the correct inside diameter and depth and the resultant cap and barrel were threaded - on the inside of the cap and the outside of the barrel. The circular groove inside the barrel to take the lever wire ring was also cut at this time. The ends of each part were shaped and the barrel milled for the lever slot before they were placed in a dry kiln for a period to stabilise the material after all this machining.

Casein was easy to machine, though somewhat brittle if undue pressure was brought to bear in the wrong place or at the wrong time, whilst 'broaching out' the lever slot, for instance. During the 1950s the material was generally used in the cheaper models (such as the 15/16/17 and 759) and was typically available in black and three mottled, or marbled, patterns - a different pattern for each model type - with green, red and blue the predominant colours.

► The earliest coloured casein Dinkies often had letter suffixes (as in 1-11) after the model numbers to indicate the pattern (but not the colour). Plain coloured Dinkies often had a 'C' suffix. The first colour names (12-14) appeared in advertising from about 1928, whilst other colour names (15-18) are generally only found printed on the plain outer boxes of boxed sets.



75-82 Shoe Lane

Volume production of the Dinkie in casein probably did not commence until Conway Stewart had relocated to their new, much larger, factory, just up the road from Nos 31/32 at 75-82 Shoe Lane, EC4 in late 1923. At this time several new fountain pens and variants of earlier models were introduced, the most significant of which was probably the Dandy. In addition, the Universal was now being made in three sizes (standard No 370, slender No 366 and pocket No 364), all still at 5/- and the firm's first lever-filling ink pencils, variants of the Pixie and Dandy, were also on offer in "assorted black and red" at 3/9 and 2/9 respectively.

Initially the six-storey block was only partially occupied by Conway Stewart, who appear to have leased it for a period of 30 years. Much of the activity at this time would have been concentrated on the turning out of the constituent parts of the pens on large automatic precision lathes, each watched over by an operator, generally a woman, supported by a team of skilled engineers who ensured that the machines, sometimes working to a thousandth of an inch, were correctly set. The work areas were relatively roomy, light and warm and the workforce, of 250 or so by 1925, were apparently happy with their lot.

With the increasing popularity and sale of the firm's products and the introduction of further models Conway Stewart had started manufacturing their own nibs by 1923 and by 1927 all six floors of 75-82 Shoe Lane were occupied and nearly 450 people employed.



75-82 Shoe Lane, c1925



 Semi-automatic lathe used for boring, turning and finishing the vulcanite holders



Frank Jarvis and Howard Garner (seated at the same desk!), 75-82
 Shoe Lane, 1925



JOHN O' LONDON'S WEEKLY, DECEMBER 6, 1930.

Onway Stewart

British Pens & Writing Sets.

A Selection of Delightful Gift Suggestions for Your Family and Friends

The "Conway Stewart" Pen

The super-quality "Conway Stewart." Pens are manisfactured in the City of Londion. They are the fereunite Pens for the Office and the Home, and are appreciated all over the world, in every Dominion, Colony and Country. They are a nevolation in mechanical perfection, and are the quickent and uncolonted writing Pens ever produced. Made in a wide variety colony of the Colon Research of the Pens every pure and for every colonion. of sizes and colours at prices to suit every purse and for every purpose. * Osmi-iridium pointed, Lact. solid gold alla, in degrees for every style of handwriting.



The "Date" For is an oversize "Conway Stewart" mode of distinctive design and finest workmutship. Has an extending rapet, solid gold risk, tipped with the hundest known also most expensive metals—consideration—for dustability. Holdes lig supply of ink, Well-balanced and may to write with. The bare-water's frequents Pen. In Black, Tan and Morties Valenaite; also in Jade Green and Lapis Blac. Made in three sizes.

No. 103 Set. No. 2"DURO"PEN HAND Price 21/-

OTHER FAVOURITE PENS

"CONWAY" PEN-Handy porior size, with fand parket olip "UNIVERSAL" PEN-A splendel model for

"DUNKIE."



No. 77 Set. DUBOFORT FENCE



No. 66 Set. Nondey 7

"DONCE" PEN, attractively in the least probability of Cord Probability property of the best probability Price 12/6

No. 40 Set .-POINT FENCE, for I. delighted system of colours No. 48 Set. - Street with Price 10/6



THE "CONWAY" SELF-FILLING INK PENCIL

Conway Stewart Pens and Writing Sets are sold by all loading Stationers and Stores. If out of stock, refuse substitutes and write for coloured Christman Folder, Post Fire



Conway Stewart

The "Conway Stewart" Pen Stand, No. 1.

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Price £3-3-0 75-82 SHOE LANE, LONDON, E.C.4 Price 25/-



▲ Dinkie No 20 (526 pen) set



▲ Dinkie No 10 (540 pen) set



▲ Dandy No 65 (728 pen) set



▲ Dandy No 62 (720 pen) set



▲ Dinkie No 54 (548 pen) set



▲ Dandy No 77 (728 pen) set



▲ Dandy No 76 (720 pen) set

Overlays and Hallmarks: 1919-1941

The first Conway Stewart 'overlaid' (ie fully-mounted) pens were introduced soon after the end of the Great War. Known as 'Presentation Pens', they were initially available as ED-fillers in sterling silver and rolled gold, either filigree or engine-turned, and retailed at 15/-.

During the period from the early 1920s until 1934, when Conway Stewart registered their own maker's mark, two 'gold and silver mounters' or 'workers', were involved in providing rolled gold and precious metal overlays on Conway Stewart pens, whilst two others, in the late 1920s and during the 1930s respectively, made solid gold mounts, or bands:

Widmers Ltd – Founded in 1892 and known as Widmers Ltd in 1916, Harry Alphonse Widmer was a director of the company which operated from 32/34 Clerkenwell Road, EC1. Widmer's maker's mark was WSLD (registered in London in 1916 and re-registered in 1923), which is to be found on both Dinkie and Presentation lever-filling pens (9ct and sterling), as well as Dandy-size EDs, during the period 1922 to 1929.



▲ WSLD 9ct London 1922



▲ WSLD Sterling London 1923

William John Ayres – Based in Clerkenwell, EC1, William John Ayres took over James Ayers's business in 1913, when his maker's mark, WJA, was registered in London. WJA marks are to be found on the precious metal overlays of Dinkie, Dandy and larger models from the early 1920s until about 1940.



▲ WJA 9ct London 1931



▲ WJA Sterling London 1934

Emile Valentine Jarry – Born in 1870 and living in Cricklewood, London N, Jarry was a 'manager, bullion refinery' in 1911 and a director of Richard Buckland Ltd in August 1924, when he registered his maker's mark, as E.V.J., in London. He was described as a 'gold and silver worker' with a business address at Hadyn Park Works, Askew Road, Shepherds Bush, London W. Jarry had sold his business and/or premises to Johnson Matthey (who occupied the Hadyn Park Works for many years) by 28 February 1930, when his maker's mark was cancelled. Jarry's mark is often found on solid 18ct gold cap and barrel bands of the late 1920s.



▲ EVJ 18ct London 1929

Johnson Matthey & Co Ltd – Dates back to 1817 when Pescival Norton Johnson set up in business at 79 Hatton Garden, EC1 assaying and refining precious metals for the jewellery trade. By the 1920s the company were making small parts for English pen and pencil manufacturers. However, they did not register their own maker's mark, JM&Co, in London until 1929 and their mark is often found on solid 9ct and 18ct gold cap and barrel bands.



▲JM&Co 18ct London 1933



▲JM&Co 9ct London 1936

In September 1934 Conway Stewart finally registered their own maker's mark in London, CS&Co, which is often found on cap and barrel bands during the period 1934-1941. The CS&Co mark was also registered at the Birmingham Assay Office, in June 1939, and is to be found on the Conway Stewart No 60 pencil, in sterling silver, made for Conway Stewart by Wm Collins of Birmingham.



▲ CS&Co 18ct London 1940

Overlays and Hallmarks: 1919-1941



From left: unmarked (but badly dinged) ED c1919; Dandy in RG c1926; Dandy in Sterling 1934; Dandy in RG c1936; RG button-filler c1936; Lever-filler (with unusual lever-end) in Sterling WJA 1934; Lever-filler in Sterling WJA 1935; No 60 Pencil in Sterling CS&Co Birmingham 1939

▼ A Presentation Pen in 9ct; WJA 1931



Chapter 4: 1935-1938

Going Public



Conversion: Private to Public

Sale Prospectus

Profitability

Sale of the Shares

New Directors

Bob Fry

More Pencils

New Models and Colours

'Cracked Ice'

Secret of Success

1936 Results

An Interesting Pen Lecture

The Ink Visible

How to be a Successful Fountain Pen Retailer

The Pen with the Marvellous Nib

Promise of new records in the Sale of Conway Stewart Pens and Writing Sets

HEARTY THANKS TO ALL OUR FRIENDS

1935-1938 Going Public 114



- Conway Stewart button- and leverfillers, c1933-c1941; from left - 266; 266; 435; 435; 435; Duro No 2; Duro No 26; 1209 (18ct bands, 1933); 1203 (9ct bands, 1936); 1206 (18ct bands, 1941)
- Conway Stewart lever fillers, c1933c1940; from top - 35; four 226



 Unusual nib imprint, probably for export, 1930s [An identical 40 nib is also known]



Secret of Success



- ▲ The Conway pens, c1930-1937; from left - 460; 11 pencil; two 477; three 475; 475 with additional Boots Stationery Dept imprint
- The Conway pens, c1930-1937;
 from top: two 476; 448



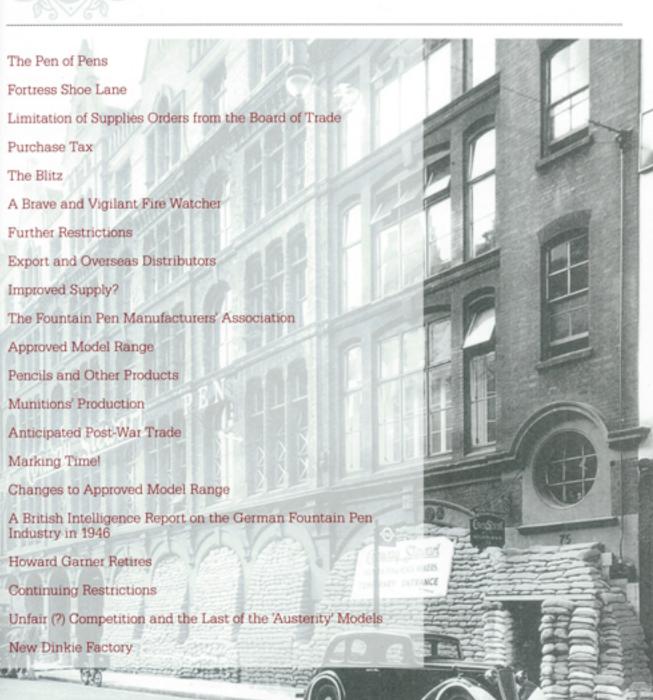




Chapter 5: 1939-1948

War and Post-War: Restrictions and Rationing





Chapter 6: 1949-1954 New Products And A New Factory



The New Range The Death of Kenneth Jarvis The Last Days at Shoe Lane The New Factory in Copperfield Road, Mile End [Celluloid] Metal and Vulcanite Parts Gold Nibs Assembly and Finishing [Hilda Gregory - My Time at Conway Stewart] Packing and Despatch Security at Copperfield Road Another Pen Robbery? High Days and Holidays Ethos Gresham Pen Store The 100 and Other New Pens

The New Range



- ▲ The Conway Stewart pens, 1949-c1958; from left - 24; 18 pencil; 24; 27; 37 pencil; 27; 26 28; 58; 33 pencil
- No 30 Set (24 Pen and 18 Pencil)



Metal and Vulcanite Parts



▲ The machine shop showing the capstans for drilling, threading and tapping the caps and barrels. "These girls were tough and were usually called Maggiel"

Gold nibs, levers and presser bars were made in-house, whilst the clips and (aluminium) clip screws and rolled gold bands for the caps were sourced from outside suppliers, the latter in tube (or already cut to size) from Johnson Matthey of Hatton Garden, who also supplied the gold strip for the 14ct nibs. The clips came from FM Bradley & Co Ltd of 55 Buckingham St, Birmingham.

A batch of four metal presses stamped out the two types of presser bars from rolls of galvanised metal. Rolled gold was used for the levers - simple ones for the 'shepherd's crook' (j-bar) type of bars (which were generally used in the later casein models), and more detailed ones with 'feet and shoulders' for the 'floating-bar' type. The 'D' pieces, fitted at the end of the lever slot to help secure the lever in the closed position, were pressed out at the same time. All of these metal parts went through a gentle 'rumble' polishing prior to final assembly.

Sections and feeds were still being made of vulcanite in the 1950s and were made in much the same way as they had been since the early 1900s. For most of the machining operations these were a series of gauges to check length, depth and thickness and each batch, for the same model, were wired together. For polishing, half-a-dozen would be dropped on a spindle and put to the mop in the same fashion as the caps and barrels.

The feeds were most carefully controlled in the cutting of the grooves to allow the correct air.ink exchange and the 'tongues' of the feeds were polished three or four at a time by hand on a small mop on the feed bench. The fitting of the feed into the section was done individually, as was the next operation of fitting the section to the barrel - push fit for celluloid and shellac-sticking for casein.



Chapter 9: 1975

Finis



