

HOW ARE STEEL PENS MADE

Spencerian Pen Company

METALLIC PENS were made in small quantities before the Nineteenth Century, but the Pen as we know it now was really invented by James Perry, the founder of the firm of Perry & Co., Ltd., who produced an article similar to the present day, and whose Patents, taken out in the early part of the Nineteenth Century, were the first patents of importance for Metallic Pens.

His invention has been immortalized by Tom Hood in his,, Whims and Oddities":

"In times bygone, when each man cut his quill,
With little Perryian skill
What horrid, awkward, bungling tools of trade
Appeared the writing instruments, home made."

The chief center of pen making at the present time is in Birmingham, England, where the Spencerian Steel Pens have been made since 1855. The manufacturers of Birmingham make Steel Pens adapted to every country in the largest variety of patterns, and are the most reliable pen makers in the world.

A high-grade Pen has to pass through a great number of processes, and the following short account may be of interest.

RAW MATERIAL- The sheet steel is cut into strips of a convenient length and width, and then rolled cold to the exact gauge necessary, according to the Point to be manufactured.

CUTTING THE BLANK- This is a mechanical operation, and is effected with the aid of a screw press, in which a pair of tools corresponding with the shape of the pen has been fixed. On pulling a lever the screw descends, driving the punch into the bed, which cuts with a scissor-like action a blank from the strip of steel.

MARKING THE NAME- This is done by means of a punch fixed in the hammer of a stamp, worked by the foot. The blanks are rapidly introduced between guides fixed on the bed of the stamp, and as soon as the hammer has fallen, the blank is thrown out and a new one introduced.

PIERCING- The tools for this operation are of a delicate character. The blanks are fed by hand, as above explained, and the hole punched by a screw press. This is a most important process; the pierce hole and side slits determine the elasticity and regulates the flow of the ink on the pen.

ANNEALING OR SOFTENING- The blanks are still moderately hard, and before raising, it is necessary to soften them by beating to a dull rod, and allowing them to gradually cool.

RAISING- The operator places one of The soft blanks on a (Ile to which guides are affixed to keep it in position; then by moving the handle of the press, the screw descends, forcing a die which rounds the blank into the form of a pen.

HARDENING- The pen is now too soft, and is hardened by heating, and then immersing in oil -while hot, after which it is thoroughly cleansed from all grease.

TEMPERING- The pens are now hard but very brittle, and in order to correct this defect, they are placed in an iron cylinder, and kept revolving over a gas or charcoal fire until they acquire a proper temper.

SCOURING-After soaking in diluted sulphuric acid, the pens are, placed in iron cylinder& containing fine stone and water, or fine sand, and revolved for several hours. When taken from these cylinders they are bright and smooth.

GRINDING- This is a process performed by hand on a "bob," or wooden wheel covered with leather and dressed with emery, revolving at high speed. A light touch on the emery wheel grinds off the surface between the pierce hole and the point to obtain proper action and to assist the flow of ink.

SLITTING- This is a hand process performed with a press, the cutters being as sharp as razors. The pen is placed in position by means of guides, and must be cut with utmost precision from the pierce hole to the point, the point must be divided exactly in the middle, the least variation making the pen defective.

COLORING AND VARNISHING- The pens having been polished to a bright silver color are placed in an iron cylinder and kept revolving over a gas or charcoal fire until the tint required is produced. They are then immersed in a bath of shellac varnish, and afterwards dried in an oven.

EXAMINATION -Every Spencerian pen passing through the factory is most carefully examined before being boxed, and should the least fault be found, it is at once rejected. It is thus that the trademark Spencerian has attained such world-wide reputation for excel- and uniformity of quality.