

R. M. & D. Cameron,
Pen.

No. 61,156.

Patented Jan. 15, 1867.

Fig. 3



Fig. 4

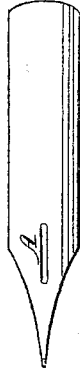


Fig. 1

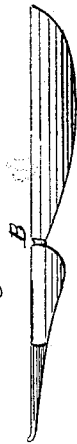
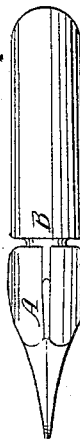


Fig. 2



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by *A. S. Hollis*
their atty

WITNESSES.

M. Bailey
Prod. Commrs

United States Patent Office.

ROBERT M. AND DUNCAN CAMERON, OF EDINBURGH, NORTH BRITAIN.

Letters Patent No. 61,156, dated January 15, 1867.

PEN.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, ROBERT MACINTYRE CAMERON and DUNCAN CAMERON, both of Edinburgh, in the county of Mid Lothian, North Britain, have invented certain new and useful improvements in Pens used for writing; and we hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings.

This invention, which consists of certain improvements to be employed in the construction of pens used for writing, has for its object the construction of a pen which shall travel over the surface of a rough straw, or other paper, without its being liable to be stopped in its course by any of the projections which are usually found on papers of an inferior quality. The mode in which this improvement is effected is by slightly turning off, in an upward direction, the extreme tips of the nibs. By this arrangement a narrow rounded surface is applied to the paper in lieu of a sharp point, as in pens hitherto ordinarily constructed. The formation of the nibs in the manner hereinbefore described is effected as hereinafter more particularly set forth.

Description of Drawings.

Figure 1 is a side elevation, drawn to a large scale, of one form of pen constructed according to this present invention.

Figure 2 is a plan directly corresponding to fig. 1.

Figure 3 is a side elevation of another or more ordinary form of pen, having our said improvements combined therewith; and

Figure 4 is a plan corresponding to fig. 3.

Although in the appended sheet of drawings we have shown only two forms of pens, still it is to be understood that all kinds and forms of steel pens, beside those we have now shown, are or may be made in accordance with our said invention. In carrying this invention into effect, after the blanks from which the pens are to be produced are punched from the plate, these are transferred to another punching machine, fitted with a punch and matrix corresponding to the form of the hole A, figs. 2 and 4, from which the split is afterward extended to the tips of the nibs, and as soon as the hole is punched, the blank has the curved or other shaped indentation, B, figs. 1 and 2, formed on it by being acted upon by a die and matrix correspondingly formed. As soon as this indentation is made, the blank is transferred to the bending die and matrix, by which the longitudinally curved form is imparted to it. After having passed through the hereinbefore mentioned mechanical processes, the pens are hardened by being placed in an iron hardening box or hardening boxes, which are heated in a suitable furnace until the hardening temperature is reached, and when in the heated state they are immersed into a bath of oil, where they remain until cool, after which the pens are tempered and split. Up to this stage of the manufacture the general routine is much the same as that ordinarily employed in the making of metallic pens; but in order to produce a pen possessing the qualities hereinbefore described, it is necessary that the extremity of the nibs should be, to a slight extent, curved in an upward direction, and it is here intended to be distinctly expressed and understood that the parts of the nibs produced in a direction tending upward from the body of the pen, are turned by preference in the form of a segment of a circle, instead of in a direction strictly angular, as we have found by experiment that the circular turn of the nibs enables a much finer stroke to be produced in writing with the improved pens than can be effected with nibs turned up at a rectilinear angle. There are several ways in which the turning of the nibs may be effected, and this is the last stage of the manufacture. The mode in which it is preferred to curve or turn the nibs is as follows: After the pens are hardened, split, and otherwise finished, their extreme tips are passed into or between a pair of pressers or rollers, which are caused to draw in and squeeze or press upon the portion of the pen to be curved. This action of the pressers or rollers is effected by any well-known approaching and receding system of mechanism, such as is used in other preceding stages of steel pen manufacture.

Claim.

The construction of pens possessing the improved qualities in the manner substantially hereinbefore described, and shown in the accompanying drawings.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

Witnesses:

HENRY I. T. TURNBULL,
WILLIAM HAY.

R. M. CAMERON,
DUNCAN CAMERON.