

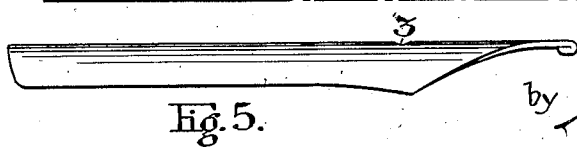
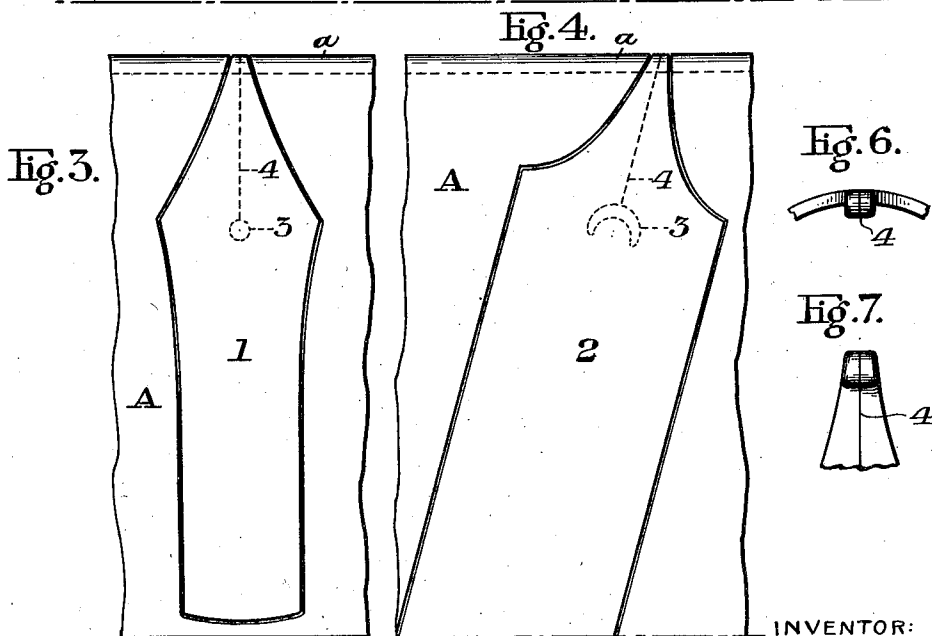
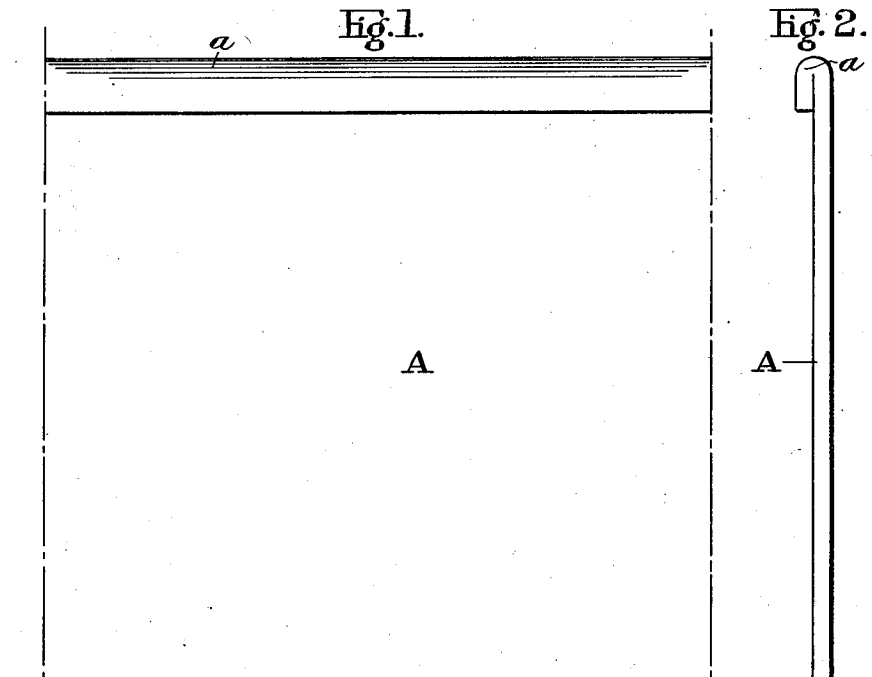
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PEN AND METHOD OF MAKING THE SAME

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PEN AND METHOD OF MAKING THE SAME

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5 Claims. (Cl. 113—32)

My invention relates to writing pens, and one object of my invention is to provide a pen with a thickened writing tip end made from blanks die-cut from metal stock having a turned or folded edge which forms such writing tip end.

A further object of my invention is to provide a pen made from blanks die-cut from metal stock having a turned or folded edge in which the folded portion may be substantially semicircularly curved and closely engages the stock forming the body of the blank at that part of the same which forms the writing point end of the finished pen.

A further object of my invention is to provide a simple method of producing a pen from die-cut blanks made from preformed metal stock having a turned or folded edge.

These and other features of my invention are more fully described hereinafter, reference being had to the accompanying drawing, more or less diagrammatic in character, in which:

Figure 1 is a fragmentary view of a portion of flat metal stock from which blanks to form my improved pens are cut.

Fig. 2 is an edge view of the same.

Fig. 3 is a fragmentary view illustrating the manner in which blanks to form one type of pen are die-cut from metal stock of this character.

Fig. 4 is a view illustrating the manner in which blanks to form another type of pen are die-cut from this metal stock.

Fig. 5 is a side view of a finished pen.

Fig. 6 is a front view of the nibs of the finished pen on a larger scale, and

Fig. 7 is a plan view of the underside of the nibs at the writing tip end of the pen.

In carrying my invention into effect, flat metal pen stock is prepared by folding or turning one edge of the same against itself and into close engagement with the body of the stock, a condition that is maintained in all further use of such stock and the blanks formed therefrom in making my improved pens. This stock may be of any suitable metal. Fig. 1 shows a plan view on an enlarged scale of flat metal stock from which my improved pens may be made, and Fig. 2 is an end view of the same. In these views, A represents the body of the stock, and a the turned edge of the same.

The pens are blanked from this stock in the manner illustrated in Fig. 3 wherein the turned or folded edge is shown as being at the underside of the stock while being blanked. Pens having straight nibs are usually blanked in lines at right angles to the edges of the stock, as indicated at 1, Fig. 3. Stub pens whose ends are

usually disposed diagonally with respect to the longitudinal axis of the pen may be blanked from this stock in such diagonal relation, as indicated at 2, Fig. 4. In this blanking operation, the die cuts entirely through the turned or folded portion at the edge of the stock.

After the blanks have been cut from the stock, they are punched at 3, and slit at 4, and then shaped or raised to the desired curvature by the usual means. They are complete pens from these operations, and they are finished in the usual way by rumbling. The rumbling action removes any fins left from the blanking operation. As the sides of the nibs at the forward ends of the same are on a substantially semicircular curve, all angular portions at the sides of these ends round quite readily under the rumbling action, and the final condition of the pen is substantially that illustrated in Fig. 5. The finished writing tip end is illustrated in Figs. 6 and 7.

A pen made in accordance with my invention from flat metal stock prepared with a folded or turned edge provides initially the desired thickened end with a curved surface from which end the smooth writing point is developed, no further manipulation of such nib end being necessary after the pen has been blanked. By reason of this, the steps of manufacture have been greatly reduced, my improved pen simply requiring blanking, piercing, slitting and raising and the usual finishing.

When these pens are made of stainless steel, the operation of turning or folding the edge of the stock tends to harden the same thereby increasing the wearing qualities of the pen. This work-hardening effect is concentrated at the point of greatest wear, to wit: the thickened portions of the nibs which contact with the paper.

The stock from which my improved pens are made may be of any gauge commonly employed in the manufacture of pens, and the amount of turned or folded portion may be anything desired or necessary to form a thickened end of proper dimensions.

The preparation of the flat metal stock to provide the same with the desired turned or folded edge is a continuous operation, and such turned or folded edge is closely contacted with the body of the stock in such manner that it will remain in such close contact for the full width thereof; insuring the desired thickened writing tip at the ends of pens and/or pen points made therefrom and permitting the production of pens and/or pen points with such thickened writing tip end

from any portion of such turned or rolled edge of the stock. Inasmuch as the work incidental to turning or folding the edge of a section of stainless steel has a tendency to harden the thickened edge thus produced, the manufacture of pens and/or pen points of this particular character from flat stainless steel stock so prepared is an important feature of my invention, since such material will give a pen or pen point having a thickened writing tip end highly resistant to wear.

Various modifications may be made in the foregoing embodiment of my invention without departing from the spirit and scope thereof as set forth in the appended claims.

I claim:

1. A writing pen made from a metal blank having an end consisting of a closely folded portion thereof; the writing tip portion of the pen made from such blank consisting of such closely folded end.

2. A writing pen made from a metal blank having an end consisting of a closely folded portion thereof; the writing tip portion of the pen consisting of such closely folded end whose forward edge is diagonally disposed with respect to the longitudinal axis of the pen.

3. The method of making a pen or pen point which comprises preparing flat metal stock with

a turned or folded edge, cutting a blank from such stock with the folded or turned edge portion thereof at one extremity of the blank to constitute the writing tip point of such pen, piercing and slitting the blank, shaping or raising the blank to pen form, and subsequently finishing the pen by the usual rumbling operation.

4. The method of making pens or pen points which consists in preparing flat metal stock with a turned or folded edge, die-cutting blanks therefrom and cutting entirely through such turned or folded edge by the die action whereby such folded or turned edge portion constitutes the writing tip point of such pen, piercing and slitting the blank, shaping or raising the blank to pen form, and subsequently finishing the pen by the usual rumbling operation.

5. In the manufacture of metal pens and pen points having a thickened writing tip, the steps of forming a folded or turned edge on a strip of flat metal stock; said folded or turned edge closely contacting the stock the entire width of the turned-over portion, forming blanks from such stock in such manner that the closely folded or turned edge portion is cut entirely through and constitutes the writing tip end of such pen or pen point, and subsequently finishing the blank into pen contour and writing condition.

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