E. W. GILES.

PEN-HOLDER TIP.

No. 192,754. Patented July 3, 1877.

Fig. 1.

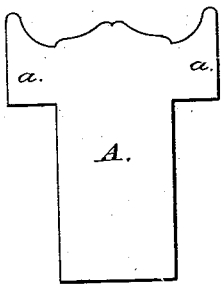


Fig. 2.

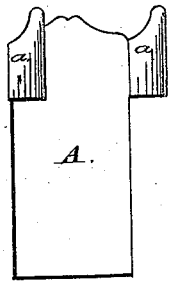


Fig. 3.

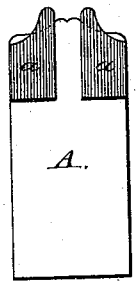


Fig. 4.

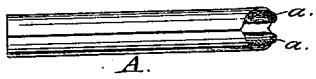
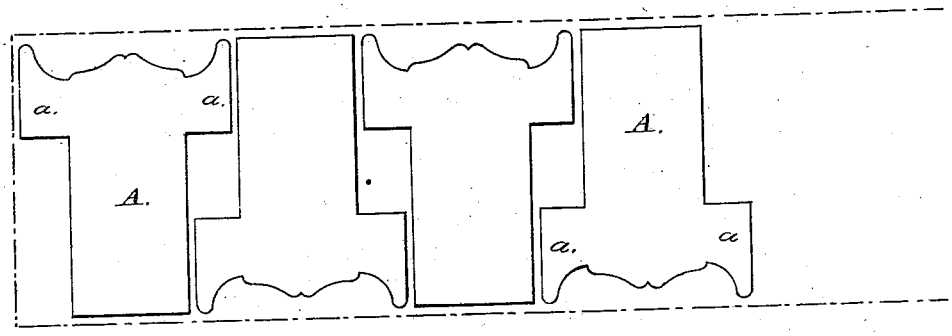


Fig. 5.



Inventor.

E. Walter Giles,

Witnesses:

Thomas B. Estep.

Gus Firnbach

UNITED STATES PATENT OFFICE.

E. WALTER GILES, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN PEN-HOLDER TIPS.

Specification forming part of Letters Patent No. **192,754**, dated July 3, 1877; application filed March 31, 1877.

To all whom it may concern:

Be it known that I, E. WALTER GILES, of Baltimore city, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Pen-Holder Tips; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my invention is to produce a pen-holder tip that is very simple in its construction, neat in its appearance, can be furnished at a very small cost, and is not liable to get out of order.

As is well known to those skilled in the art, pen-holder tips as heretofore made have had the outside tube and the interior spring, between which the pens are held, made of two separate pieces, which have then been secured together either by an eyelet, slot, holes, clinch, rivet, or in a similar manner, which detracts from its beauty and neatness, is expensive, and is yet not a perfectly-secure fastening.

To obviate these difficulties is the object of my invention; and it consists in making the outer tube and the interior spring or holding-piece in one piece, which are then rounded to the usual shape, the whole operation requiring but five manipulations or processes, while, with the ordinary tips, twelve manipulations were necessary.

My process consists in, first, cutting the blank; second, raising the springs to square or right angles; third, laying or lapping the springs flat; fourth, raising the whole to a half-round; and, fifth, rounding completed.

The ordinary process consists in, first, cutting the blank; second, piercing the top hole or ∩; third, piercing bottom hole or ∪; fourth, raising to a half-round; fifth, rounding to a tube; sixth, punching in the top clinch or ∩; seventh, placing in the spring; eighth, punching in the bottom clinch or ∪; ninth, cutting the spring-blank; tenth, piercing the spring for fastening; eleventh, raising the spring to half-round; twelfth, rounding the spring.

These twelve processes do not include preparing metal, &c., for use, before cutting springs, or their hardening and tempering before placing into the tubes, &c., whereas, my five processes include all from the blank to the rounding of a complete pen-holder tip ready for tempering, &c.

In the accompanying drawing, Figure 1 represents a blank flattened out for one of my pen-holder tips. Fig. 2 shows the spring bent at right angles. Fig. 3 is a view, showing the ends for the spring doubled over or lapped. Fig. 4 is a view of the tip complete. Fig. 5 shows the manner of cutting the blank out of a strip of metal.

In the drawing, A represents a blank of any suitable metal, such as steel, brass, tin, copper, silver, German silver, gold, &c., which blank is cut or punched, in the usual manner, out of a strip. One end of this blank has an ear or piece, *a a*, on each side, which is turned or lapped over onto the main piece A, as shown in Fig. 2, and thus forms the spring. The ears or spring *a a* are first bent at right angles to the main piece, as shown in Fig. 2. They are then lapped over onto the main piece, as shown in Fig. 3, after which they are bent to a half-round shape, and finally completely rounded, and form the tip and spring in one piece. They are then tempered and hardened in the ordinary manner, and are completed. The natural spring of the completed tip is enough to hold it on the handle or stick without the use of shellac or other cement.

The advantages of my improved pen-holder tip are, that it is very simple; it can be rapidly and economically made; it is very cheap; it is neater and more durable than any tip now in use, and not liable to get out of order. The springs not being made of a separate piece, but part of the tube-blank, it does not force out or spread the tube, not even after the pen is placed in position. The seam is close and remains so, and the springs lie close to the tube on each side, and act only as desired—viz., to hold the pen firmly. There is no possibility of the spring becoming loose or dropping out, and no spring-fastening of any kind is needed, all being in one piece.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

As an improvement in pen-holder tips, the blank A, provided with the ears *a a*, for forming the solid body, as well as the holding-springs, of a pen-holder tip in one piece, when constructed and arranged as herein shown and described.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

E. WALTER GILES.

Witnesses:
THOMAS B. ESTESS,
GUSS. FIRMBACH.