D. M. SOMERS.

Pen-Holder.

No. 167,581. Patented Sept. 7, 1875.

Fig. 1.

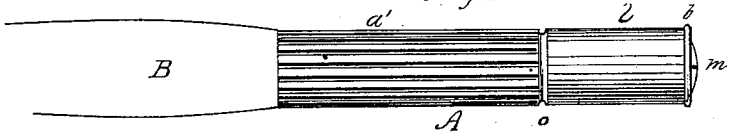


Fig. 3.

Fig. 2.

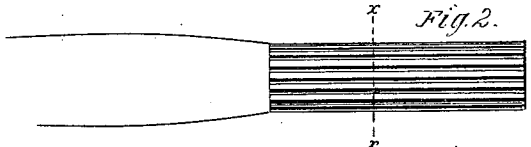


Fig. 4.

Fig. 5.

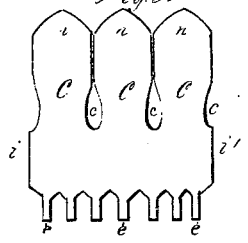


Fig. 6.

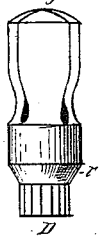


Fig. 7.

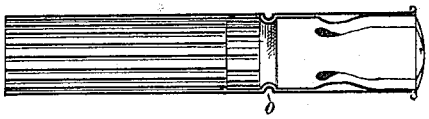


Fig. 8.

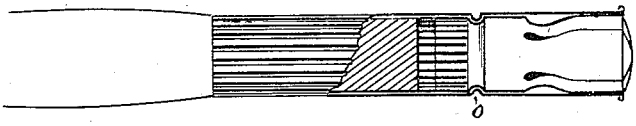


Fig. 9.

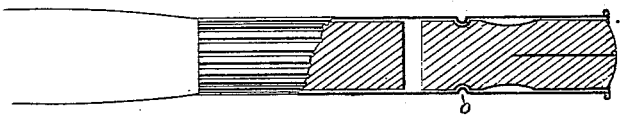


Fig. 10.

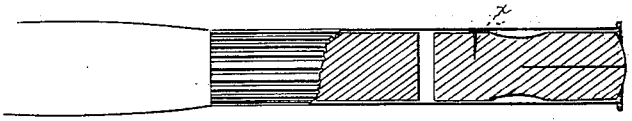


Fig. 11.

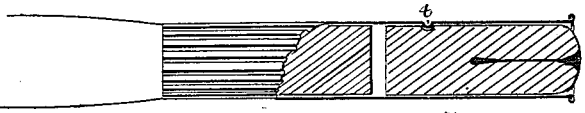


Fig. 12.

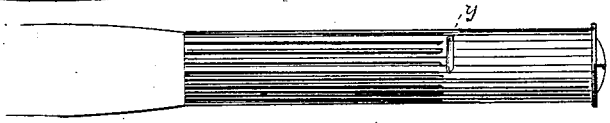
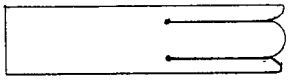


Fig. 13.



Witnesses:

Wm. H. Elliot

R. F. Masson.

Inventor:

Daniel M. Somers

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DANIEL M. SOMERS, OF NEW YORK, N. Y.

IMPROVEMENT IN PEN-HOLDERS.

Specification forming part of Letters Patent No. **167,581**, dated September 7, 1875; application filed August 30, 1875.

To all whom it may concern:

Be it known that I, DANIEL M. SOMERS, of New York city, have invented an Improvement in Pen-Holders, of which the following is a specification:

In the accompanying drawings, in which like letters indicate like parts, Figure 1 is a perspective view of the pen-holder complete; Fig. 2, a perspective view of the stick or handle with its end fluted to receive the corrugated barrel or tip; Fig. 3, a section of Fig. 2 on line *x x;* Fig. 4, an end view, showing the flanged edge of the barrel and the divided oval end of the spring-nib; Fig. 5, a plan view of the blank from which the spring-nib is formed; Fig. 6, a perspective view of the spring-nib swaged into shape for insertion into the barrel or tip; Fig. 7, a longitudinal section of the barrel or tip and spring-nib united; Fig. 8, a longitudinal view, partly in section, of a pen-holder with all of the parts in proper position; Fig. 9, a longitudinal view, partly in section, of one modification in which the nib is made solid, and has its end split to provide for the reception of the pen; Fig. 10, a longitudinal view, partly in section, of another modification, wherein the solid nib is secured by a rivet, *x;* Fig. 11, a longitudinal view, partly in section, of another modification, wherein the solid nib is secured by teats or circular depressions *t;* Fig. 12, a perspective view of another modification, wherein the means for securing the nib is an elongated depression, *y;* and Fig. 13, a perspective view of an open-ended split nib.

The invention consists of a pen-holder, the base portion of the nib-holding barrel or tip of which is corrugated longitudinally to afford secure and firm attachment to the stick or handle, and whereby is provided an irregular, yet comparatively smooth, exterior surface, which prevents it from slipping or turning in the fingers while in use, and affords an ornamental exterior finish; also, of a pen-holder the barrel or tip of which is formed of a metal tube having a corrugated or fluted base, and which is provided with a pen-retaining nib, as hereinafter more fully described.

In carrying out this invention, I form a barrel or tip, A, in tubular form from a thin sheet of metal in any of the well-known modes of drawing or otherwise forming metal tubes, and corrugate or flute its base portion, as at *a'*, to a distance sufficient to furnish a proper bearing upon its stock or handle B. The other end of said tube is beaded or turned back upon itself, as shown at *b*, whereby said end is rendered sufficiently strong to resist any undue strain or pressure. By thus disposing the metal forming the extreme ends of said barrel or tip, the smooth portion *l* constituting the bearing for the ends of the fingers is provided, and such strength given to the entire tube as to prevent its being bent out of shape. Thus a considerable reduction in the thickness of its metal walls is accomplished, while greater strength than that possessed by a plain tube made of very much thicker metal is provided. The nib which fills or is introduced into the outer end of said barrel or tip, and which provides a pen-holding recess or space between its walls and those of the barrel or tip, is preferably formed as follows: A blank is cut out of sheet metal in the form shown in Fig. 5, which blank has a width from its sides *i* and *i'* equal to the inner circumference of the barrel or tip A, and is of a length a little greater than that of the plain outer end *b* of said tip. Its upper end is divided longitudinally by slots *c*, whose curved sides diverge so as to form a considerable opening at the lower ends of said slots, while the arms C, formed by these intervening slots, have the sides of their free ends formed by curves, which unite at a central point. The lower end of this blank is perforated by a number of slots, whose base-lines are triangular, by which a number of fingers, *e*, with parallel sides and angular bases, are provided. Such a blank is rolled or otherwise brought into cylindrical form as a tube, in which process the base of each of the fingers *e* will be forced inwardly at an obtuse angle until the angular sides of each at this point meet or close together, which manipulation will also bring together the parallel sides of their extended parts, thus forming the smaller tube or nipple D extending from the base, as in Fig. 6. During this operation the main body will have carried the arms C with it, and the lower extremities or bodies of the latter will also be forced inward to a slight degree near the base

of the recesses which separate them from each other, while their upper ends will nearly or quite touch each other along their sides, which have the greatest curve or swell. This longitudinal curvature provides them with a sufficient spring-power to keep them in this position, and return them to it when forced inward by the insertion of the pen, as is hereinafter more fully described.

The extreme or curved ends *n* are bent inward toward the center, so as to form a semi-spherical end or head, *m*, their curved sides coinciding and lying in close proximity.

The nib thus constructed is inserted within the open forward end of the barrel or tip, and when this construction is used the barrel or tip A will have a knurl or inwardly-projecting annular bead, *o*, rolled or otherwise formed in its body at the termination of the corrugations *a'*. The angular base *e* of the tip will be seated against the knurl or bead *o* of the barrel, when, by suitable tools, the nipple or small projecting tube D, which is divided or split longitudinally, as has been explained, will have its fingers *e* opened and spread outwardly, so as to conform to, overlie, and clasp the knurl or bead *o*, while the extended ends of said fingers will be caused to enter into and rest within the flutes or corrugations of the tip or barrel.

This latter feature may be dispensed with and the fingers *e* be cut to a length which will be sufficient to enable them to be clasped over the knurl or bead without entering into the corrugations. Thus the nib and barrel are fitted and fastened together in an expeditious and secure manner without the interposition of solder or other means of fastening.

The curved ends of the arms C of the nib close the end of the barrel or tip and their bodies form elastic supports for a pen introduced between them and the inner walls of the barrel or tip. The pen is thus held by a force sufficient to retain it in position while in use, from which it may be easily removed when a new one is to be inserted.

It is to be observed that any number of equal divisions of the nib may be made, the arc of curvature of the opposite sides of the extreme ends of their arms C being such as to provide for their coinciding when said ends are closed inwardly to form the semi-spherical end or head *m*, and also that they may have angular sides when a flat surface is desired for the end or head *m*.

In place of this construction of nib its inner ends may be open, as in Fig. 13, when it will be united to the barrel by teats *t*, as in Fig. 11, which, depressing the walls of both barrel and nib, interlock the two together. The nib may also be a cylinder with both ends open, the outer one being split, as in Fig. 13, or be a solid wooden or soft-metal nib with one end split, as in Figs. 9, 10, and 11, and these nibs may be secured in the barrel or tip by an annular depression, *o*, as in Figs. 7, 8, and 9, or by teats *t*, as in Fig. 11, or by elongated depressions *y*, as in Fig. 12. Thus these nibs may be of any form of construction, and be secured in the barrel by any of the means shown or common in fastening such parts into tubular barrels or tips; but the form of parts and means for fastening illustrated in Figs. 1 to 8, inclusive, is preferred, as embodying the most compact, secure, and efficient construction of the device, the distinguishing features of which are the barrel or tip having its means of attachment to the stick or handle provided in its corrugated or fluted base and the corrugated base and beaded or flanged end, whereby the minimum thickness of metal and maximum strength of tube are obtained.

A pen-holder thus made and provided with any suitable pen-retaining nib furnishes an inexpensive, light, and strong article, with a sectional configuration which provides an exterior surface irregular enough to afford a sufficient bearing for its secure retention in the fingers of the user, and yet smooth enough not to abrade the flesh, while imparting great strength and an ornamental finish.

What I claim, therefore, is—

1. A pen-holder, the barrel or tip of which is formed of a metal tube having a corrugated or fluted base, substantially as shown, and for the purposes described.

2. A pen-holder, the barrel or tip of which is formed of a metal tube having a corrugated or fluted base, and which is provided with a pen-retaining nib, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DANIEL M. SOMERS.

Witnesses:

HENRY J. THORNTON,

M. B. PHILIPP.