S. B. LADD.

PEN-HOLDER.

No. 192,439. Patented June 26, 1877.

Fig. 1.

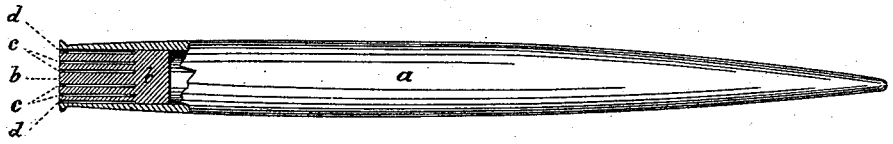


Fig. 2.

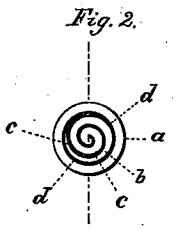


Fig 3.

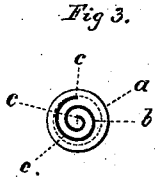
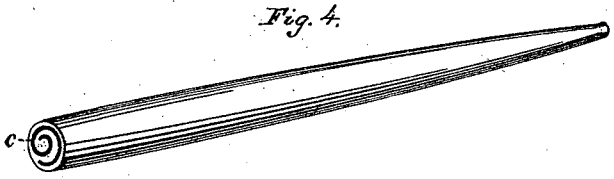


Fig. 4.



WITNESSES:

F. V. Hayden

B. A. Grafton

Story B. Ladd INVENTOR:

UNITED STATES PATENT OFFICE.

STORY B. LADD, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN PEN-HOLDERS.

Specification forming part of Letters Patent No. **192,439**, dated June 26, 1877; application filed May 24, 1877.

To all whom it may concern:

Be it known that I, STORY B. LADD, of Washington, District of Columbia, have invented certain new and useful Improvements in Pen-Holders; 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 the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to furnish a pen-holder with which any ordinary pen can be used. As pen-holders are usually constructed the socket which holds the pen has elastic walls, either of metal or rubber, which yield to pressure more or less, and permit the use of a pen of a slightly different curve from that of the socket itself; but the curvature of the pen has to approximate to the curvature of the socket, especially if the pen-holder is made of rubber, or if it is made of wood, with a socket for the pen punched or cut in the end of the wood.

My invention consists in making the socket to receive the pen of a spiral or convolute form, so that the radius of the socket shall decrease toward the center of the pen-holder, and some portion of the socket will conform closely to the curvature of any ordinary pen, the outer portion of the socket receiving the larger, and the inner the smaller pens. It applies to all pen-holders, but especially to those made of rubber, and to wooden pen-holders made with the socket punched or cut in the end.

Figure 1 is a view of a pen-holder, showing a longitudinal section through the socket; and Figs. 2 and 3 are views of the end of the same, showing different forms of curves. Fig. 4 is a perspective view of a wooden pen-holder.

The rubber pen-holder (shown by Fig. 1) is made of a hollow tube, *a*, and a plug, *b*. The socket to receive the pen is made (preferably) of a simple spiral or convolute, *c*, Fig. 3; but it may be made, as shown by Fig. 2, with a spiral or convolute socket, *c*, combined with a cylindrical socket, *d*.

The pen is placed in position in that portion of the spiral socket which will receive it easily; but if the pen is not firmly held, when placed in the part of the socket where the curvature of the socket is the same as the curvature of the pen, it should be inserted at a point where the curvature is slightly different, and it will then be securely and firmly held in place.

If the pen-holder is made of wood the spiral or convolute socket *c* may be formed by means of a punch made of a thin steel plate, about the thickness of an ordinary pen or a little thicker, coiled in the convolute form. This punch is driven into the end of the pen-holder to the proper depth, and then withdrawn. All kinds of wood cannot be used for this purpose; but if a soft fibrous wood is used (bass wood is probably the best) the punch can be driven in far enough to hold the pen without splitting the wood. In some cases it may be necessary to hold the end of the pen-holder in a ring or clamp when the punch is driven in to prevent it from splitting.

I am aware that wooden pen-holders have been used before with a socket or slit in the end to receive the pen, but the socket or slit has been of such a shape that only pens of a certain size and shape could be used with each pen-holder, and if a pen of a different curvature was forced into the socket there was danger of splitting the pen-holder; and I am also aware that pen-holder tips have been heretofore used made of a single piece of sheet metal, or other suitable material, coiled in such a way that one part of the tip comes inside of the remainder, forming two barrels of one piece, one inside of the other, such tips being shown and described in Letters Patent No. 154,801, granted to John W. McGill, September 8, 1874; but the object of such construction is to make in one piece what was formerly made in two. The socket to receive the pen is still substantially cylindrical in form, and the ability of the tip to hold pens of different curvatures depends not upon the varying curve of the socket, as in my device, but upon the elasticity of the barrels.

With my device any pen can be inserted into any pen-holder without straining it, as there will always be some part of the socket where the curvature will be substantially the same as that of the pen used.

I claim as my invention—

1. The improved pen-holder, consisting of the handle *a*, constructed substantially as described, and provided with the plug *l*, having the convolute or spiral pen-retaining groove or socket, whereby it is adapted to hold pens of varying sizes and curvatures.

2. An improved pen-holder, consisting of a handle made of wood or other suitable material, with a convolute or spiral pen-retaining groove or socket formed in the end of the pen-holder, substantially as herein described.

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

STORY B. LADD.

Witnesses:
F. V. HAYDEN,
B. F. GRAFTON.