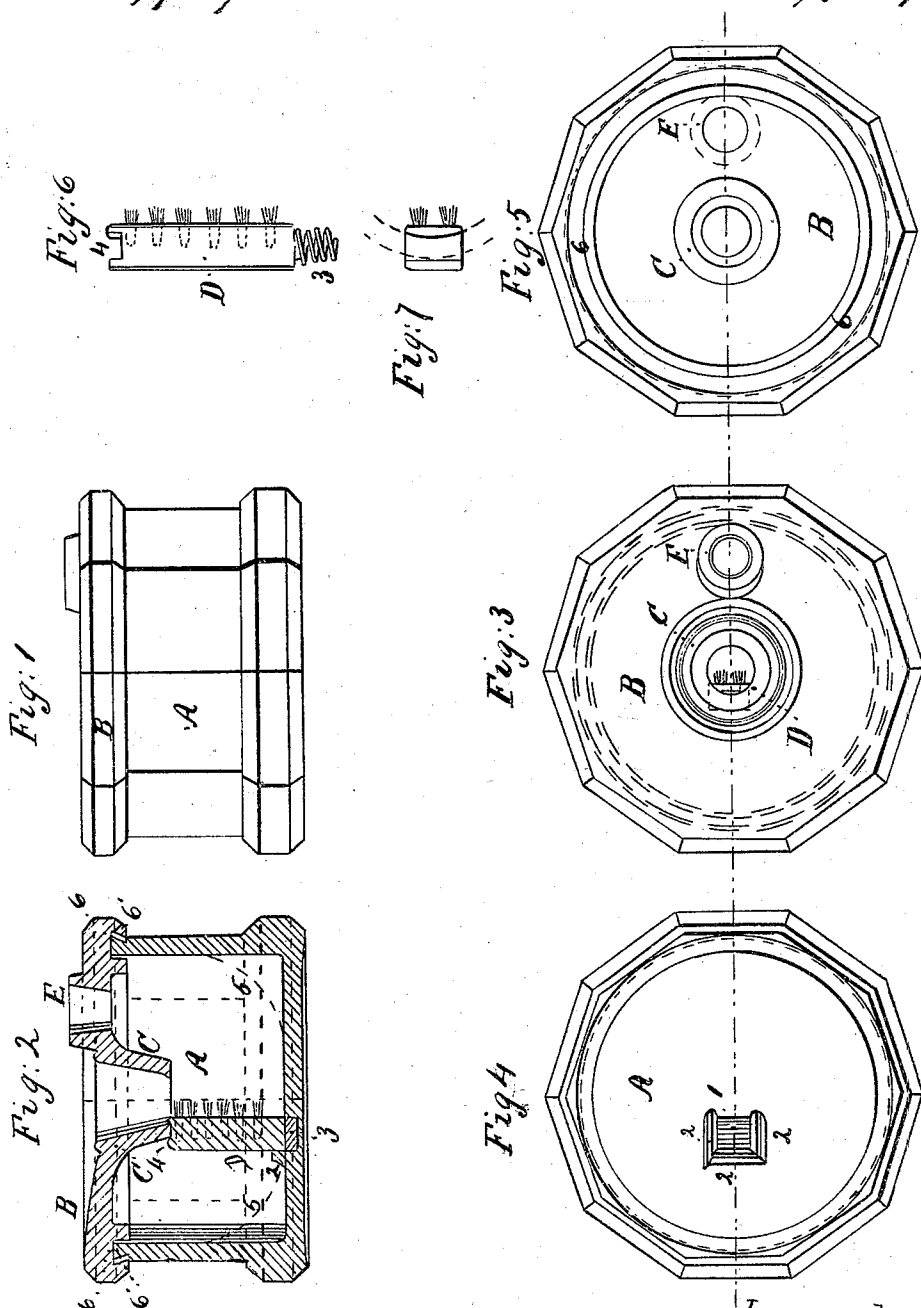


S. Darling *Pen Cleaner.*

N^o 110,959. Patented Jan. 17, 1871.



Witnesses

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SAMUEL DARLING, OF PROVIDENCE, RHODE ISLAND.

Letters Patent No. 110,959, dated January 17, 1871.

IMPROVEMENT IN PEN-CLEANERS.

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

To all whom it may concern:

Be it known that I, SAMUEL DARLING, of the city of Providence and State of Rhode Island, have invented certain Improvements in Pen-Cleaners; and I do hereby declare that the following, taken in connection with the drawing which accompanies and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My invention consists, first, in a brush, the body of which stands vertically within the vessel, and is held in place by a spring, the bristles or brush part projecting from the body in about a horizontal direction, so that the pen may be inserted in an opening in the top of the vessel, and be cleaned in the act of lifting the same up again, whereby the spring of the bristles as the pen pulls them upward and moves away from them, shall be in a downward direction, so as positively to fling the ink or deposit downward into the water and thus keep the brush as clean as possible.

One form in which I have embodied my improvements I have illustrated in the accompanying drawing, in which—

Figure 1 is an elevation;

Figure 2, a vertical section through the center,

Figure 3, a plan;

Figure 4, a plan, the top part and brush being removed;

Figure 5, a plan of the under side of the top part;

Figure 6, an enlarged view of the brush detached, and a spiral spring for the same; and

Figure 7, a top view of the brush.

A is the lower part of my pen-cleaner, and serves as a vessel for containing the water or other fluid.

B is the upper part or cap, and which may be made either integral with the dipping-mouth C, or the latter may be made separate, and secured therein. So, also, the bottom of A may be made separate, and secured to the cylindrical part; but I prefer to make A in one piece and B in another, as shown, especially when made of glass or other molded or cast material.

Within the bottom of part A is a depression, 1, preferably walled on most of its sides, as seen at 2, the better to contain a rubber, spiral, or other spring, 3, and also the lower end of the vertical body of the brush D.

This brush has its bristles extended horizontally, or nearly so, and they are arranged in a vertical line or lines immediately beneath one side of the dipping-mouth, so as to give ample space for the

insertion of the pen to be cleaned between the bristles and the opposite side of the mouth, but yet in a position such that, in raising the pen again, it may be readily wiped upon the brush, which will thus not only clean it, but also, by the back spring of the bristles, clean the brush by throwing downward any particles or dust or thickened ink which they may have received.

The upper end of the brush is notched, as seen at 4, to receive the edge of the mouth-piece or dipping-cup, and the spring serves to keep it in place by forcing it upward with a constant pressure.

It is by this mode of attachment in a condition, however, to be readily removed at any time by merely pressing it downward enough to release the notch from the edge of the mouth-piece, and is as readily put to place again.

The bottom of the part A may have its inside corners filled up or rounded, as seen at 5, so that the required depth of water may be secured with the use of a lesser quantity.

As in view of the accidental upsetting of the apparatus, no more water should be introduced than the vessel will hold when inverted in the annular space between the mouth-piece C and the walls of A, it being understood that the depth to which C shall descend below B will determine the quantity.

In order to make a perfectly water-tight joint at the junction of the parts A and B, the latter is made with an annular groove, 6, which is afterward turned to a bevel, 6', on the outer side, as shown, and the top part of the cylindrical wall of the part A is also made to a bevel to conform to the bevel 6'.

All the surfaces coming together being then made rough by grinding, afford, in addition to the bevels, a certainty of securing a strong as well as a tight joint, upon cementing the parts together with shellac.

This I do in the following manner:

I invert the piece B, and fill its annular groove with powdered shellac, and then invert the part A and place the annular edge of the same into the groove of B, and then heat both until the shellac melts.

When cooled the seam thus becomes an effectual dovetail, the space between the bevels as well as between the other faces being filled in solid.

E is an opening of use only for the purpose of cleaning out the vessel whenever desirable. At all other times it is kept tightly corked up.

In preparing to use the apparatus it is partially filled with water, the opening E tightly corked up,

and it is then turned upside down to insure that it shall retain no more water than it will hold when so inverted, the excess being allowed to run off.

It is then reversed, and is ready for use, and will bear tilting or upsetting without spilling any water.

I do not claim, broadly, a vessel having a cavity in its top to hold liquid when the vessel is upside down, as inkstands have been so made; but

I claim—

A pen-cleaner vessel having a brush, D, set vertically within the vessel, and held to place between the top and bottom thereof by a spring, 3, and operating as described.

SAMUEL DARLING.

Witnesses:

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