

(No Model.)

G. O. HARLAN.
FOUNTAIN DRAWING PEN.

No. 558,278.

Patented Apr. 14, 1896.

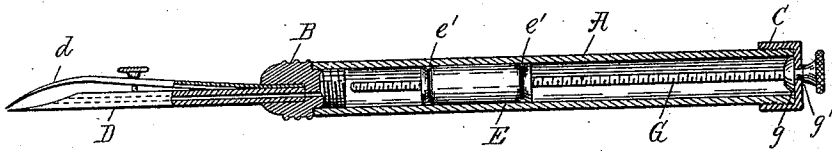


Fig. 1.

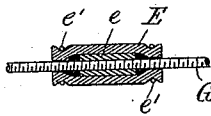


Fig. 2.

Witnesses.

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FOUNTAIN DRAWING-PEN.

SPECIFICATION forming part of Letters Patent No. 558,278, dated April 14, 1896.

Application filed February 1, 1896. Serial No. 577,764. (No model.)

To all whom it may concern:

Be it known that I, GEORGE O. HARLAN, a citizen of the United States, residing at Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Fountain Drawing-Pens; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to provide a fountain drawing-pen which shall be simple, durable, and cheap, which may be easily and accurately manipulated, which shall waste little ink, and which may be easily and quickly filled or cleaned.

I will now proceed to describe the pen shown in the drawings, in which—

Figure 1 represents a central longitudinal section, and Fig. 2 a similar section, of the plunger.

The receptacle, which is a tube made of gutta-percha or metal or other suitable material, is indicated by the letter A. The lower end of this tube is closed by a plug B, which preferably screws into said end. The other end is closed by a cap C, which screws onto said end. Through the plug B a hole is formed, in which the tubular pen-blade D is tightly fastened. The lower end of this tube is beveled, so as to sharpen its extreme end to the usual form. The flexible or movable pen-blade *d* is rigidly secured at its upper end to the plug B or blade D, which, as above indicated, are rigidly attached together. In the preferred construction the movable blade is brazed to the tubular blade, and the ends of both blades are secured in the hole in the plug. Within the receptacle is a movable piston E. A screw-rod G passes through a central hole in the cap C, and is fitted upon both sides of said cap with the shoulders *g g'*, which prevent any longitudinal movement of said rod. The outer shoulder is enlarged to form a knob, by means of which the rod may be turned. The part of the rod within the receptacle is threaded and screws into the piston. While any suitable piston may be employed in the described combination without departing from my invention, I believe that the specific piston shown is the cheapest

and most satisfactory. This piston consists of a cork having a central square hole into which a nut *e* is placed. A fine non-corrosive wire *e'* is twisted around both ends of the cork, as shown, whereby the nut is tightly gripped and prevented from moving.

That part of the receptacle between the piston E and plug B is filled with ink. This ink is forced to the pen-points through the tubular pen-blade by the downward movement of the piston, induced by the turning of the rod G. The piston may be moved very slowly, and therefore the amount of ink forced down may be accurately regulated. If too much ink is forced out, or if some ink remains upon the points when operator desires to suspend the use of the pen, this ink may be drawn back into the receptacle by drawing the piston upward, the pen being preferably inverted during this operation.

The pen may be thoroughly cleaned by removing both the cap C and plug B. It may be filled quickly by removing the plug, and it may be filled slowly by dipping the lower end of the tubular blade into the ink-supply and drawing the piston upward, although this last method is not recommended.

It is believed that this pen is simpler in construction than any fountain drawing-pen heretofore made, wherefore it is cheaper and more durable. The piston works slowly, wherefore there is little danger that too much ink will be suddenly forced out; and because the ink may be easily and completely drawn back into the receptacle, the pen may be easily kept clean and very little ink need be wasted.

Having described my invention, I claim—

1. In a fountain drawing-pen, the combination with a tubular ink-receptacle, a plug for closing the lower end thereof having an opening through it, a tubular pen-blade secured to said plug in communication with said opening and having its lower end beveled to an edge, and the flexible pen-blade, with a piston within said receptacle, and mechanism for operating said piston, substantially as and for the purpose specified.

2. In a fountain drawing-pen, the combination of a tubular receptacle, a plug for one end thereof having an opening therethrough, a tubular pen-blade fitted in said opening and

having its lower end beveled to an edge, and an opening pen-blade secured in said opening, with a piston movable in the receptacle, having an internal screw-thread, a cap for
5 closing the upper end of said receptacle, a rod passing through a hole in said cap and having the part within the receptacle threaded for engagement with the piston, shoulders on
10 said rod on both sides of the cap, and a knob on the outer end of said rod, substantially as and for the purpose specified.

3. In a fountain drawing-pen, the combination of a tubular receptacle, a plug fitted to one end and having an orifice through it, a
15 tubular pen-blade secured to the plug in com-

munication with said orifice, and the movable pen-blade, with a cork piston having a central hole, a nut fitted into said hole, and wires compressing said cork on both sides of the nut, a cap secured to the top of said recepta- 20 cle, a screw-rod passing through said cap and engaging with said nut, having shoulders on both sides of said cap, substantially as and for the purpose specified.

In testimony whereof I affix my signature 25 in presence of two witnesses.

GEO. O. HARLAN.

Witnesses:

B. R. DUDROW,
H. H. HOUSE.