Aug. 23, 1938. C. J. MacNALLY 2,128,052

FOUNTAIN PEN

Filed March 31, 1937

Fig. 1.

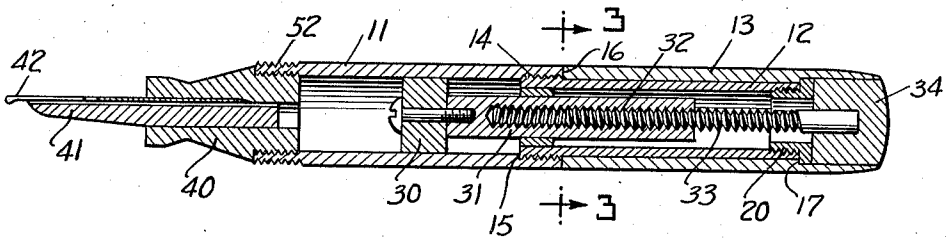
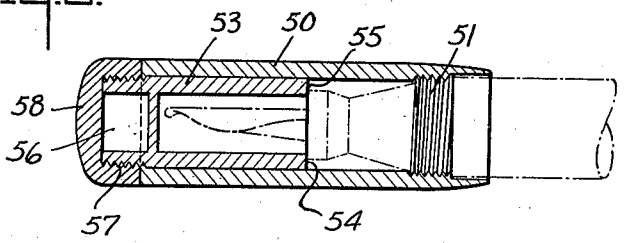


Fig. 2.



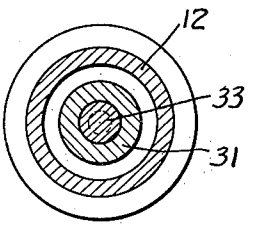


Fig. 3.

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FOUNTAIN PEN

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Application March 31, 1937, Serial No. 133,964

7 Claims. (Cl. 120—47)

This invention relates to fountain pens and more particularly to that class of pens known to the trade as self filling pens in which the ink is drawn up into the barrel of the pen by a reciprocating piston, and has for its object the production of a pen simple in construction, cheap in cost of manufacture and easily assembled.

Another object of this invention is to provide a fountain pen of this type so constructed that it may be made of short ends of standard tubing which may otherwise have little or no value, but assembled in such a manner as to provide a smooth gripping surface for the fingers with a barrel substantially uniform in diameter throughout its length.

The foregoing and other features of my invention will now be described in connection with the accompanying drawing forming part of this specification in which I have represented my improved fountain pen in one of its preferred forms, after which I shall point out more particularly in the claims those features which I believe to be new and of my own invention.

In the drawing,

Figure 1 is a longitudinal section through my pen barrel.

Figure 2 is a longitudinal section through the cover cap.

Figure 3 is a cross section along the line 3—3, Figure 1.

In the carrying out of my invention I employ three short lengths of tubing 11, 12 and 13, all substantially of the same length. Tubes 11 and 13 are substantially the same diameter, while 12 is smaller in diameter with an outside diameter substantially the same as the inside diameter of the other two tubes.

Tube 11 is threaded internally on both ends and externally on one end as shown. Tube 12 is threaded externally on one end and internally on the other as shown. These tubes are screw threaded together at 14. Tube 11 forms the ink chamber of my pen, while tube 12 forms the housing for the working portion of my device. While I have shown these tubes secured together by interfitting threads, they may be secured by any known means which may be convenient or desirable, such as a press fit or the telescope portions may be coalesced by a chemical process to form the two tubes into substantially one piece, the improvement being that these short pieces of tubes are firmly secured together so that a definite and positive internal shoulder 15 and an external shoulder 16 are provided. Tube 11 may be made of translucent material to show the amount of ink within the chamber.

Tube 13 has an outside diameter equivalent to tube 11 and an inside diameter sufficiently larger than the outside diameter of tube 11 to permit the easy turning thereon when secured in place.

In the end of tube 13 I provide a reamed shoulder 17 so that the flange 20 which is screw threaded into or otherwise fastened to the tube 12 rides on the shoulder 17 preventing the tube 13 from coming off the tube 12.

A piston 30 preferably of cork, is provided with a tubular piston rod 31 having a screw threaded interior 32 adapted to engage the screw 33 which is secured into the cap 34. This cap 34 is cemented into the end of tube 13. As the tube 13 is turned on tube 12 the piston 30 is reciprocated within the ink chamber 11 through the medium of the inter-operating nut 32 and screw 33.

The ink chamber away from the operating end is provided with the usual pen section 40, feed 41 and pen point 42.

For a cap I provide a length of tubing 50 provided with the usual screw threaded interior 51 which is adapted to fit and screw on threads 52 of the barrel 11. On the opposite end of the tube 50 from the screw threaded open end, I provide a plug 53 which is secured into the end at a point 54 which limits the travel of the pen into the cap, at the same time the shoulder 55 thereof serves as a seal to prevent the air from drying the ink in the feed. On the end of this plug 53 away from the shoulder 54 I provide a chamber 56 which may be used for the storage of ink pellets. This end of the plug is provided with a screw thread 57 on which I mount a closure cap 58.

I wish it distinctly understood that my fountain pen herein described and illustrated is in the form in which I desire to construct it and that changes or variations may be made as may be convenient or desirable without departing from the salient features of my invention and I therefore intend the following claims to cover such modifications as naturally fall within the lines of invention.

I claim:

1. In a fountain pen, in combination a barrel comprising two interfitting cylindrical tubes of substantially the same length, the outside diameter of the smaller tube being substantially equal to the inside diameter of the larger tube, a piston mounted to reciprocate within the larger tube and provided with a tubular rod extending into the inside of the smaller tube, said rod provided

with a screw threaded interior, a cap adapted to completely enclose and swivel upon the smaller tube and having a screw projecting inwardly from the top and adapted to engage with the screw threaded tube whereby the piston may be reciprocated within the barrel upon the relative turning of the cap and larger tube.

2. The device of claim 1 including a shoulder formed by the interfitting tubes which serves as a stop to limit the outward travel of the piston.

3. The device of claim 1 including the interfitting tubes being screw threaded into each other.

4. The device of claim 1 including the interfitting tubes being telescopically joined.

5. The device of claim 1 including the interfitting tubes being coalesced into an integral whole.

6. The device of claim 1 including the larger tube being made of translucent material with the smaller tube being of opaque material.

7. The device of claim 1 including means to prevent the removal of the cap from the smaller tube including a flanged ferrule secured to the smaller tube, the flange engaging a shoulder on the interior surface of the cap.

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