

PATENT SPECIFICATION



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169,616

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COMPLETE SPECIFICATION.

Improvements in Fountain Pens.

I, JEAN MARIE CAVAILLE, a French citizen, of rue Garros, Cannes, Alpes Maritimes, France, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to fountain pens of the kind wherein a compressible rubber or like tube is provided as a reservoir for the ink, and a compressor plate is located between the ink reservoir and the inner surface of the outer casing of the pen, which, operated from the outside of the pen, serves to collapse or expand said ink reservoir as required, and said invention has for its object to provide means for forcing the ink from the reservoir to the pen-nib as and when required of a stronger, more easily operated, and less expensive, form than heretofore.

According to this invention a compressor plate of a suitable light metal or material made (preferably by stamping) in one piece, thus avoiding any soldering or riveting of parts of a length approximately the same as the reservoir, and curved to fit the internal circumference of the casing or body of the fountain pen to which it is to be applied is inserted between the rubber reservoir and said casing or body of the pen. The width of the plate is such that when the plate is placed diametrically across said casing or body, said plate and the thickness of the rubber reservoir equal the internal diameter of the casing or body, the movement of the plate being *à bascule*.

At about the centre of its length said compressor plate is formed with a suitable curved lug on one edge which lug projects through a slot or opening formed

in the wall of the casing of the pen with its edge resting on the exterior of said casing.

A rotatable collar or sleeve is fitted upon the casing or body of the pen and has an opening in the wall thereof corresponding with the curved lug of the compressor plate and serves to operate said compressor plate as and when it is required to force ink from the reservoir to the nib of the fountain pen. To this end, the edge of the opening in the rotatable sleeve or collar adjacent the free edge of the lug is bevelled so that when rotated or turned upon the casing of the pen said bevelled edge inserts itself under the edge of the lug and raises same, the edge of the compressor plate opposite the lug thus being pressed into the rubber tube which is thereby gradually compressed until the ink is all expelled.

The ink is held steadily in the reservoir and leakage prevented by inserting in said reservoir a hair packing compressed to a required extent which absorbs and holds the ink until the ink is pressed out thereof by the action of the compressor plate above described.

A hair packing will be found superior to one of cotton or wool as it retains its springiness and absorbing qualities for a much longer time and is not so liable to coating or clogging; a further advantage being that an economy in the use of ink is effected by reason of the ink-absorbing and retaining property of the hair so that after the reservoir is emptied it may be refilled with water which dissolves ink residue in the packing and the liquid becomes sufficiently coloured for writing.

And in order that this invention may

[Price 1/-]

Price 4s 6d.

Price 3s. 6d.

be the more fully understood reference will now be made to the accompanying drawings in which

5 Figure 1 shows a portion of the body of a fountain pen of the kind described with the improved compressor plate and operating sleeve fitted thereon, the reservoir being represented as full.

10 Figure 2 is a similar view showing the reservoir after it has been emptied by the action of the compressor plate, and

Figure 3 shows the compressor plate of the invention separately,

15 Similar letters of reference indicate like parts throughout where occurring.

20 In the drawings aforesaid *a* indicates the casing or body of the fountain pen, *b* is the rubber reservoir, *c* the compressor plate, *d* the operating lug thereof, and *e* the sliding and rotatable collar with opening *f* therein and having the edge *g* of the opening bevelled.

25 The lug *d* of the plate *c* is formed at the inner end of its upper edge with a notch *d'* which tends to keep the plate *c* steady without hinge or rivet.

30 Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

35 1. A fountain pen of the kind described provided with a compressor plate stamped in one piece without any soldering or rivetting of parts and so formed as to be capable of movement *à bascule* and to be operable from the outside by means of a collar or sleeve rotatably fitted upon the

body or casing of the pen, at or about the centre thereof, and having a packing of hair in the reservoir; as set forth. 40

2. In a fountain pen as claimed in Claim 1 a compressor plate curved to suit the internal circumference of the body of the fountain pen and having a curved lug projecting from one side at or about the centre thereof notched at the inner side of its upper edge, and of a width which together with the thickness of the compressed reservoir equals the internal diameter of the body or casing of the fountain pen; as described. 50

3. In a fountain pen as claimed in Claims 1 and 2 a compressor plate operating collar or sleeve rotatably mounted on the casing or body of the pen and having an opening formed therethrough with one of its surrounding edges bevelled; substantially as and for the purpose hereinbefore described. 60

4. In a fountain pen as claimed in the preceding claims a packing of pressed hair inserted in the ink reservoir, as and for the purpose described.

5. A fountain pen having its parts constructed combined, arranged and operating, as described and shown. 65

Dated this 2nd day of September, 1920.

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[This Drawing is a full-size reproduction of the Original.]

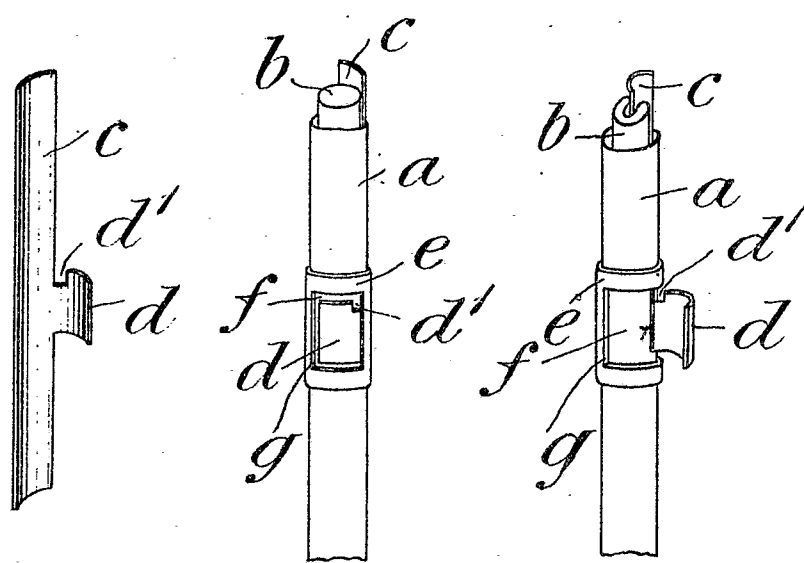


Fig. 3.

Fig. 1.

Fig. 2.