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W. P. DE WITT

FOUNTAIN PEN CASING AND CAP THEREFOR

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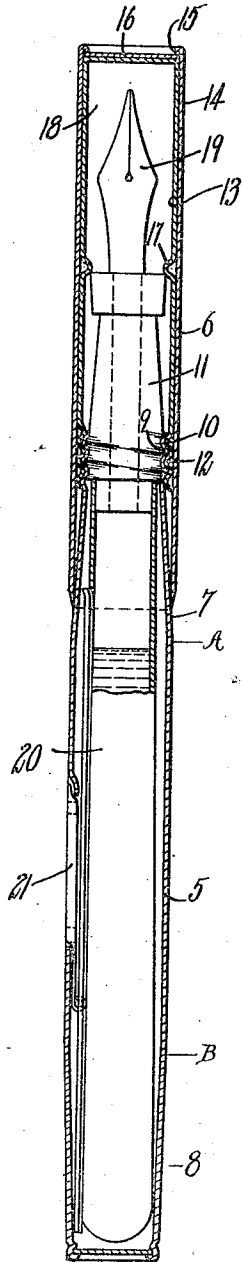


FIG. 1.

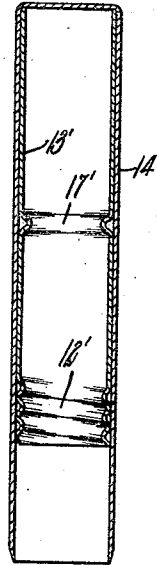


FIG. 2.

Inventor:  
William P. De Witt,  
by his attorney,  
Charles S. Gooding.

Patented Dec. 2, 1924.

# UNITED STATES PATENT OFFICE.

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## FOUNTAIN-PEN CASING AND CAP THEREFOR.

Application filed January 21, 1922. Serial No. 530,741.

*To all whom it may concern:*

Be it known that I, WILLIAM P. DE WITT, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Fountain-Pen Casings and Caps Therefor, of which the following is a specification.

This invention relates particularly to the casing and cap of a fountain pen.

The object of the invention is to provide a fountain pen in which the casing and the cap are made entirely of metal.

The object of the invention is further to provide a fountain pen with a metal casing and cap in which the outside diameter of the casing and of the cap are substantially the same.

The advantages secured by this construction are that for a given interior diameter, the outer diameter of the cap and casing is much smaller than where the casing and cap are constructed of rubber on account of the thinness of the wall rendered possible by the metal construction. The pen is also much lighter than the ordinary metal mounted pen which is usually made by covering a rubber pen with metal. In the device of this invention the metal cap is made with an inwardly projecting flange constituting a seat adapted to engage the pen section and also with a thread for engagement with a similar thread provided on the casing, the same thread on the casing which engages the thread on the inner shell being adapted to engage a thread on the pen section and thus fasten the section rigidly to the casing.

It is the object of this invention further to make a portion of the cap in the form of a cup which renders the device cheap and air tight.

The invention contemplates making the cap in two parts, comprising an inner shell and an outer shell, the inner shell having formed therein a screw-threaded portion adapted to engage a like screw-threaded portion on the front end of the casing, and said shell also has embodied therein an annular inwardly projecting flange constituting a seat adapted to bear against the front end of the pen section when the parts are assembled. The inner shell is enclosed within an outer shell, the front end of which ex-

tends beyond the open end of the inner shell. As hereinafter described and illustrated, the inner shell, forming the cap, may be a cup and the outer shell a tube, or in the inner shell may be a tube open at its opposite ends and the outer shell a cup, as may be desired.

By the construction hereinbefore set forth, it is evident that the inner shell, which is entirely surrounded by the outer shell and which has the mechanical working portions embodied therein, namely, the screw thread, and the flange or seat, may be made of a cheap metal while the outer shell may be made of an expensive metal such as gold or silver and the result attained be more practicable than as if the whole cap were made of gold or silver for the reason that the inner shell may be made of some metal which is harder and has greater wearing capabilities than the outer shell, the inner shell being made for use and the outer shell being made for ornament. Moreover, the construction of the cap allows a much greater pen space when the cap is screwed in position, making it less liable to draw the ink, or cause what is known as sweating.

Furthermore, the pen cap and casing of this invention requires less labor and is for that reason cheaper to produce than the pen casing and cap in which a rubber shell is covered with a metal shell.

The invention consists in the improved fountain pen casing and cap therefor set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings:—

Figure 1 is a longitudinal sectional elevation of my improved fountain pen casing and cap.

Fig. 2 is a longitudinal sectional elevation of a modified form of cap.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, referring to Figure 1, 5 is a casing for a fountain pen embodying my invention and 6 is the cap therefor. The casing 5 is tapered as at 7 from the line A to the front end of the pen and is also preferably tapered as at 8 from the line B to the rear end of the pen. The front end of the casing is formed to produce an interiorly screw-threaded portion 9 and an exteriorly screw-threaded portion 10. The in-

teriorly screw-threaded portion 9 engages a pen section 11 which is likewise screw threaded and the exteriorly screw-threaded portion 10 engages a screw-threaded portion 12 formed on the front end of the inner shell 13 of the cap 6. The inner shell 13, in Figure 1, constitutes a cup and is surrounded by the outer shell 14 which is tubular and the open end of which extends beyond the open end of the inner shell 13 and engages the conical portion 7 of the casing 5. The rear end of the outer shell 14 is closed by providing a flange 15 thereon which engages a disc 16. The outer shell is entirely formed of precious metal, while the inner shell may be formed of a cheaper and harder and more durable metal. The inner shell 13 is provided with an inwardly extending annular flange 17 with an inclined face which constitutes a seat and when the parts are assembled as shown in Figure 1 this seat bears against the outer edge of the front end of the pen section 11 forming a line contact therewith, thus entirely closing and providing an air tight chamber 18 in the cap 6 to receive the pen 19.

The particular class of fountain pen shown in the drawings is of that character in which an ink sack 20 is provided which is operated to feed the ink thereinto by any suitable means such as a lever 21. It will be seen that the outer diameter of the cap 6 is practically the same as the outer diameter of the casing 5.

In Fig. 2 a modified form of cap is illustrated in which the outer shell 14' is a cup, while the inner shell 13' is a tube open at its opposite ends. The inner shell 13' is of the same construction as the inner shell illustrated in Figure 1 in that it has embodied therein a seat 17' and a screw thread 12'.

The manner of using the device hereinbefore described is the same as in other fountain pens, that is, the cap is screwed on to the forward end of the casing when the pen is not in use and unscrewed therefrom and placed upon the rear end of the casing when in use.

I claim:

1. A metal cap for a fountain pen having, in combination, an inner metal tubular shell having an interior screw thread thereon at its front end for a portion of its length only and an outer tubular metal shell enclosing said inner shell and having a straight bore projecting for a substantial distance beyond the open end thereof.

2. A metal cap for a fountain pen having, in combination, a metal tubular shell having an interior screw thread thereon at its front end for a portion of its length only and an outer tubular shell enclosing

said inner shell and having a straight bore projecting for a substantial distance beyond the open end thereof, one of said shells constituting a cup.

3. A fountain pen having, in combination, a metal tubular casing, the front end of said casing being frusto-conical, said frusto-conical portion being interiorly and exteriorly screw-threaded adjacent its front end, a pen section in said casing having engagement with the interior screw thread of said frusto-conical portion and a metal cap comprising an inner metal tubular shell having an interior screw thread thereon adapted to engage the exterior screw thread on said frusto-conical portion of the casing and an outer tubular metal shell enclosing said inner shell having a straight bore projecting for a substantial distance beyond the screw-threaded portion thereof and adapted to engage the frusto-conical portion of said casing when said cap and casing are assembled, the outside diameter of said cap and casing being substantially equal.

4. An article of the class described comprising in combination a fountain pen, a cap member adapted to enclose the pen section thereof, a metal shell internally threaded at its lowermost extremity fixedly mounted within said cap member, and an integral shoulder formed interiorly of said shell and co-operating with the pen section for enclosing the nib when the cap member covers the pen section.

5. An article of the class described comprising in combination a fountain pen, the barrel thereof being exteriorly threaded at its uppermost extremity, a cap member adapted to enclose the pen section, a metal shell internally threaded at its lowermost extremity fixedly mounted within said cap member, and an integral shoulder formed interiorly of said shell member and adapted to co-operate with a shoulder on the pen section to enclose the nib when the cap member covers the pen section and the corresponding threads on the shell and barrel are screwed together.

6. A cap for a fountain pen having, in combination, an inner metal tubular shell having an interior screw thread thereon at its front end for a portion of its length only and an outer tubular shell enclosing said inner shell and having a straight bore projecting for a substantial distance beyond the open end thereof.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM P. DE WITT.

Witnesses:

FRANKLIN E. LOW,  
HAZEL F. LA MUDGE.