Jan. 14, 1930. R. P. MARKSTEIN 1,743,786

FOUNTAIN PEN

Filed June 22, 1928

Fig. 1.

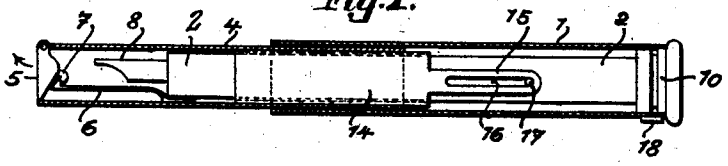


Fig. 2.

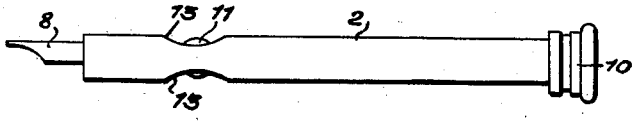


Fig. 3.

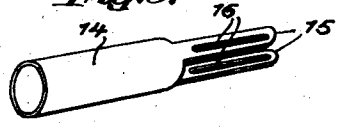


Fig. 4.

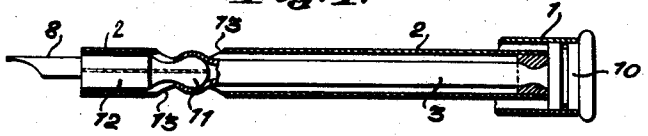


Fig. 5.

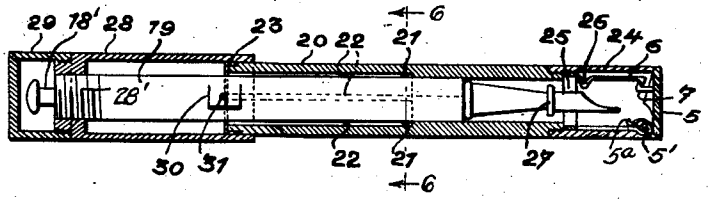


Fig. 6.

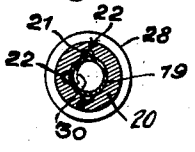
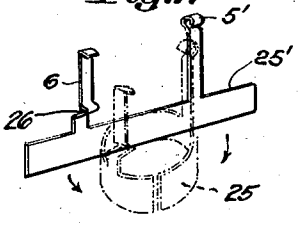


Fig. 7.



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UNITED STATES PATENT OFFICE

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FOUNTAIN PEN

Application filed June 22, 1928, Serial No. 287,555, and in Austria July 21, 1927.

The invention relates to a fountain pen, in which the outer one of two tubular members constituting the casing thereof carries the nib holder, whereas the other member is normally closed by a lid. This lid may be released by displacing said members against each other and is then moved automatically into open position before the pen passes out of the opening of the casing. By preference said nib holder may be provided with openings at each side to enable the removable ink tube to be easily applied to the nipple or the like of that portion of the nib holder which leads the ink into the pen.

Other features of the invention will be described hereafter.

In the drawings:

Figure 1 shows by way of example one form of my improved fountain pen in a longitudinal section.

Figure 2 shows the nib holder in a side view.

Figure 3 is a detail perspective of the member which permits the detachment of the fountain and the nib holder.

Figure 4 shows the nib holder and ink tube in longitudinal section partly in a side view.

Figure 5 is a longitudinal sectional view of a modified form of the invention.

Figure 6 is a transverse sectional view of the same on the plane indicated by the line 6—6 of Figure 5.

Figure 7 is a detail perspective view of the clip having the legs, one of which forms a hinge element for the lid and the other of which forms a spring pawl to secure the lid in closed position, the clip being shown as an extended blank in solid lines, and in final, circular form, in dotted lines.

My improved fountain pen comprises three tubular members 1, 2 and 4 which are capable of being displaced longitudinally relative to each other. The outer casing member 1 carries the inner casing and pen or nib holding member 2, which contains the hose or fountain 3 forming the ink receptacle. The member 4 is the handle member and normally is closed at its front or outer end by a lid 5 which is actuated by a spring, which tends to open the lid. In the innermost position of the pen 8 the lid is held in closed position by a catch spring 6 secured to the member 4, said spring engaging a hooked lug 7 of the lid.

If the member 4 is moved into the member 1 by putting the end of member 1 against a base or table and said member 4 is pressed towards the table, the front end of the nib holder 2 engages the spring 6 and releases it from the lug 7. Thus the lid is released and opened automatically by spring action, before the point of the pen 8 encounters the lid 5, so that the pen 8 may freely project. After the pen 8 has again been moved into the tubular member 4, the lid 5 may be closed and the spring 6 reengages the lug 7 and holds the lid in closed position.

The tubular ink fountain 3, which is in the present case removable and forms the ink receptacle, has one end secured to a handle button 10. This enables the fountain to be distorted and restored again for the purpose of forcing out and drawing in the ink. The other end of the fountain is removably applied to a nipple 11 of the piece 12 directly holding the pen 8, said piece being inserted in the end of the inner casing and nib holding member 2.

The member 2 has openings 13 opposite the nipple 11 for enabling the end of the fountain 3 to be easily applied to the nipple.

For removing or replacing the fountain the following arrangement is provided.

The member 4 or a tube 14 associated therewith, has two tails 15, the longitudinal slots 16 of which are engaged by two pins 17 secured to the nib holder 2. The member 1 is detachably connected to the handle button 10 by a set screw 18 or by screwing together.

The longitudinal slots 16 and pins 17 normally limit the relative movement of the two tubular members 1 and 4 and prevent said two members from being completely detached.

For removing or replacing the fountain the member 1 may first be disconnected from the button screw 10 by releasing the screw 18 and then moved longitudinally on the member 4 towards the lid 5, until the slotted

tails 15 are exposed, whereupon the latter are slightly bent and disengaged from the pins 17. Now the member 2 may be entirely removed and the fountain 3 detached.

In the arrangement shown in Figures 5 and 6, the tube 19 forming the inner casing and nib holder member and comprising the fountain and the filling device 18′, is slidably mounted on the outer tubular member 20. For limiting the stroke of the tube 19 in both directions and at the same time for preventing the tube 19 from revolving on the member 20, the said tube 19 is provided with one or two pins 21, each engaging an inner longitudinal groove 22 of the member 20. Said grooves 22 extend to the inner end of the member 20 which end is closed by a cap 23.

On that end of the tubular member 20, through which the pen projects, a cap 24 is preferably screwed, to which the lid 5 is hingedly secured, which is held in closed position by the hooked spring 6 engaging the lug 7 of the lid. Said spring forms part of a ring 25, which is secured in proper position to the inner wall of the cap 24 by soldering. The spring 6 has a bent out portion 26, which may be acted upon by a bead 27 of the nib holder, for releasing the spring 6, so that the lid is opened automatically by a spring 5^a before the point of the pen 8 meets the lid 5.

On the back end of the tube 19 is screwed a socket 28 at 28′, which is closed by an end cap 29. If the latter is removed the filling device 18′ is exposed and accessible. By moving the socket 28 toward the tube 20 the pen 8 leaves the cap 24 after the lid 5 has been opened.

In order to sufficiently hold the tube 19 in the retired position of the pen (Fig. 5), a tongue 30 is cut out from the wall of said tube and provided with a pin 31. As soon as the tube is moved outwardly the inner edge of the cap 23 forces the pin 31 and the tongue 30 inwardly, whereupon the pin 31 passes beyond such edge and engages the longitudinal groove 22 of the member 20, so that the tube may be freely moved, when the tube 19 is moved back the pen jumps over the cap 23 outwardly and thus prevents the tube 19 from moving by itself toward the opening closed by the lid 5.

The said grooves 22 may also be provided in a separate tube, which is inserted in the tubular member 20.

The spring 6 as well as the hinge 5′, for the lid may be made integral with metal strip 25′, as shown in Figure 7, said strip being bent so as to form either a resilient or rigid ring 25 which is inserted in the cap 24 and secured therein. If such ring is resilient it may be forced in an inner circular groove of the cap so as to be held therein.

What I claim is:—

1. In a fountain pen, an outer tubular casing member, a tubular inner casing and nib holder member secured to said tubular member in the interior thereof so that an annular space is formed between said outer casing member and said inner casing member, the latter also having an ink fountain member, a tubular handle member engaging said annular space and guided therein, said tubular handle member protecting the nib and enabling the fountain pen to be set ready for use by manipulation by one hand.

2. In a fountain pen, an outer tubular casing member, a tubular inner casing and nib holder member secured to the base portion of said tubular member in the interior thereof so that an annular space is formed between said outer casing member and said inner casing member, the latter also having an ink fountain member, a tubular handle member arranged and guided in said annular space, said tubular handle member protecting the nib and enabling the fountain pen to be set ready for use by manipulation by one hand.

3. In a fountain pen an outer tubular casing member, a tubular inner casing and nib holder member secured to said tubular member in the interior thereof so that an annular space is formed between said outer casing member and said inner casing member, the latter also having an ink fountain member, a tubular handle member engaging said annular space and guided therein, a lid hingedly secured to the outer end of said tubular handle member, means for automatically releasing and opening said lid by moving the tubular handle member and the outer tubular casing member relatively to each other, said tubular handle member protecting the nib and enabling the founting pen to be set ready for use by manipulation by one hand.

4. In a fountain pen an outer tubular casing member, a tubular inner casing and nib holder member secured to said tubular member in the interior thereof so that an annular space is formed between said outer casing member and said inner casing member, the latter also having an ink fountain member, a tubular handle member engaging said annular space and guided therein, a lid hingedly secured to the outer end of said tubular handle member, a clip inserted and held in the said tubular handle member and having two legs, one forming the hinge on the lid and the other leg forming a spring pawl engaging the lid to hold the lid in closed position and means for releasing said pawl by moving the tubular handle member and the outer tubular casing member relatively to each other.

5. A fountain pen comprising an outer tubular casing member open at one end, a tubular inner casing of less diameter than the outer casing member, arranged therein,

connected thereto at one end, and extending beyond the open end thereof, said inner casing member having means at its outer end for the attachment of a nib and also having a fountain member for supplying ink to the nib, said nib attaching means and said fountain being arranged in said inner casing member and a tubular handle member slidably fitted on said inner casing member and slidable in said outer casing member and provided at its outer end with a lid and means operated by movement of said tubular handle member inwardly in the outer casing member to open said lid and permit the nib to be projected through the outer end of said tubular handle member.

6. A fountain pen holder as claimed in claim 5, in which said lid is hinged to the tubular handle member and the releasing means for the lid comprises a hook lug on the inner side thereof and a catch spring arranged in and secured at its inner end to said tubular handle member and normally engaged at its free end with said catch lug, said catch spring being movable to disengaging position by said inner casing member as the latter moves outwardly in said handle member.

In witness whereof I affix my signature.

ROBERT PETER MARKSTEIN.