W. A. WELTY.

SELF FILLING FOUNTAIN PEN.

APPLICATION FILED APR. 27, 1908.

916,513.

Patented Mar. 30, 1909.

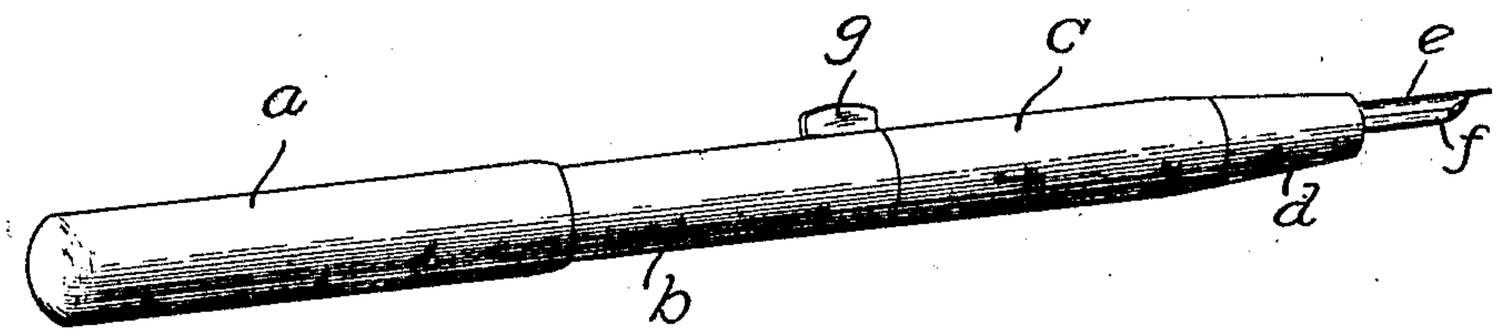

Fig. 1.

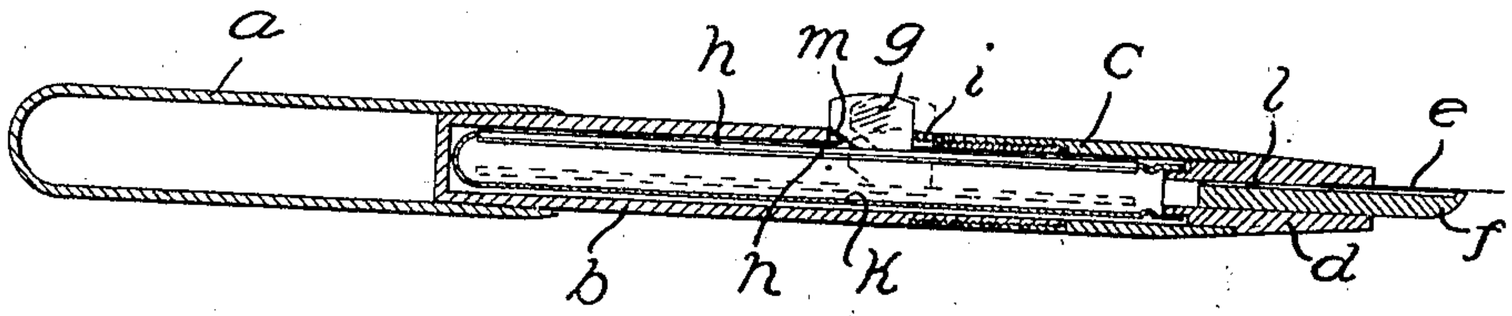

Fig. 2.

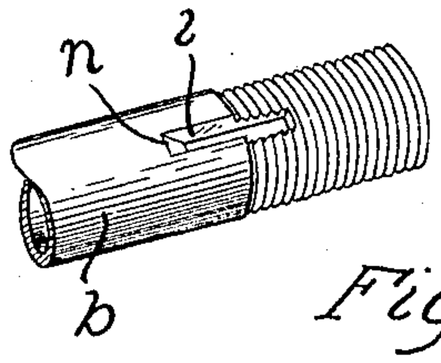

Fig. 3.

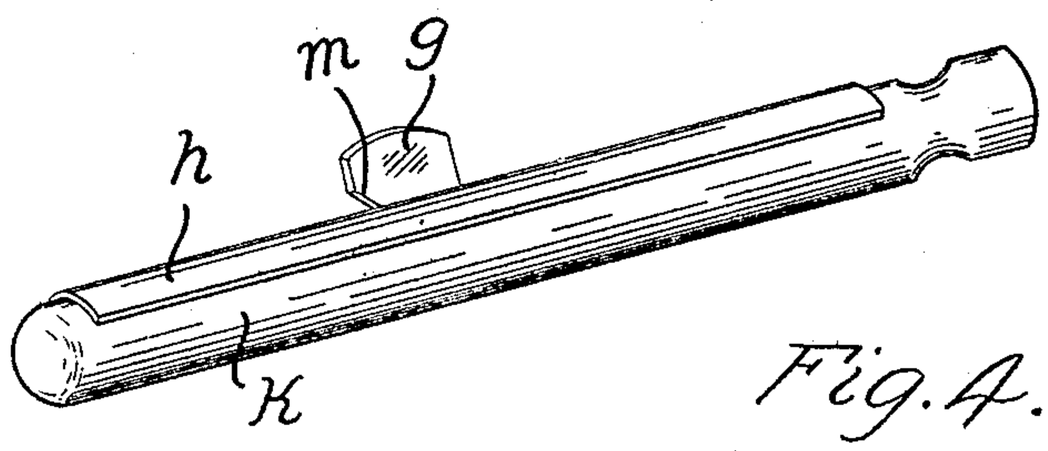

Fig. 4.

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SELF-FILLING FOUNTAIN-PEN.

No. 916,513. Specification of Letters Patent. Patented March 30, 1909.

Application filed April 27, 1908. Serial No. 429,347.

To all whom it may concern:

Be it known that I, WILLIAM A. WELTY, a citizen of the United States of America, and a resident of Waterloo, Blackhawk county, Iowa, have invented certain new and useful Improvements in Self-Filling Fountain-Pens, of which the following is a specification.

My invention relates to improvements in self-filling fountain-pens, and the object of my improvement is to provide a two-piece barrel adapted to contain the compressible ink-reservoir and pressure-bar, such barrel being so slotted at the point of connection of its parts, that when the parts are removably secured together the pressure-bar is thereby held out of compressing contact with the said ink-reservoir, but when said parts are somewhat disconnected or moved to a certain extent relative to each other, the pressure-bar is so released that it may be manipulated to compress said reservoir. This object I have accomplished by the means which are hereinafter described and claimed, and which are illustrated in the accompanying drawings, in which:

Figure 1 is a perspective of the outside of my improved self-filling fountain-pen, with its parts assembled. Fig. 2 is a longitudinal central section of the same. Fig. 3 is an enlarged fragmentary detail of the rear part of the barrel, showing the peculiarly formed slot provided therein for the reception of the pressure-bar finger-piece. Fig. 4 is a perspective of the compressible ink-reservoir and the pressure-bar, as disassembled from the barrel of the fountain-pen.

Similar characters of reference refer to corresponding parts throughout the several views.

The barrel of the device consists of a rear portion *b* and a forward portion *c*, of the same inner and outer diameters, the portion *b* having its rear end closed and its forward end provided with an exterior thread adapted to work in the interiorly-threaded open rear end of the forward portion *c*. The forward end of the forward portion *c* is open, and adapted to receive the diminished rear end of a pen-holder *d* by sliding contact. A pen *e* is received within the interior longitudinal central hollow of the part *d*, as is also a grooved conduit *f* in a well-known manner. The rear end of the part *d* is diminished yet again to supply a seat for the forward end of the elastic compressible ink-reservoir tube *k*, the latter being contained within the interior hollow of the barrel *b*—*c* and adapted to discharge its contents through the hollow of the part *d*. Within the hollow of said barrel and lying upon and along the tube *k*, is a pressure-bar or foot *h*, curved longitudinally to conform to the cylindrical curvature of said tube, and adapted to compress the latter along nearly its whole extent when the finger-piece *g* on said bar is pushed inward toward the interior of said barrel.

As shown in Fig. 3, the character *i* designates a short longitudinal slot in the part *b* of the barrel, whose inner edges are all perpendicular to a certain plane except the rear edge *n* which is obliquely directed forward and corresponds to the oblique upper edge *m* of a groove or indentation in the rear edge of the finger-piece *g* adjacent to the outer surface of its pressure-bar *h*. The length of the slot *i* is sufficient to permit the finger-piece *g* to move through it, when the latter is moved forward, but when such finger-piece is pushed backward it is forced outward on account of the sloping edge *m* riding upward along the sloping edge *n* of said slot. The pressed in position of such finger-piece is indicated by the dotted lines in Fig. 2. The compression of the tube *k* expels the air therefrom, and when the end of the part *d* is dipped into a supply of ink, the tube becomes filled when the pressure-bar is lifted by the suction therein of the vacuum. As will be observed the slot *i* extends partly through the exteriorly threaded part of *b*, so that when the part *c* is turned thereover to approach the finger-piece *g*, its rearwardly moving edge contacts with the forward edge of the finger-piece and presses it backward and upward over the rear oblique edge *n* of said slot. When the part *c* is turned to move it forward so that its rear edge moves to the line of the forward edge of the slot *i*, the finger-piece *g* is released, and may be manually pressed down upon the tube *k*.

There are several advantages accruing from the adoption of this form of construction of a self-filling fountain-pen. Among them, are the following. Simplicity of construction, which not only lessens the expense of making but also renders the manufacture of the barrel easier, and the assembling of the parts and their contents more facile. Repairs of same, and substitution of parts are

easier than in a barrel of one piece. The device as a whole, as depicted in Fig. 1 is smooth and devoid of cumbersome projections or additions, since the parts *b* and *c* are of the same outer diameter throughout, with a cap *a* of but little greater size, and the whole is thus rendered more sightly in appearance.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. In a self-filling fountain pen, in combination, a barrel formed of two hollow communicating parts, one part having a slot, an elastic ink-reservoir in said barrel, a pressure-bar having a rib projecting through said slot, and one of said parts being formed at one end to move longitudinally upon that portion of the other part which includes said slot.

2. In a self-filling fountain-pen, in combination, a barrel formed of two hollow communicating parts, one part being exteriorly threaded at one end and one end of the other part being interiorly threaded to screw upon the other part, the exteriorly threaded part having a slot in the path of the other part, an elastic ink-reservoir in said barrel, and a pressure-bar in said barrel having a rib projecting through said slot.

3. In a self-filling fountain-pen, in combination, a barrel formed of two communicating members having a connection whereby one member may move longitudinally upon the other, and one of said members being slotted in the path of movement of the other member, such slot having a sloping rear edge, an elastic ink-reservoir in said barrel, a pressure-bar in said barrel having a rib projecting through said slot, such rib having a notch on its rear end with the upper edge of such notch sloping toward the said bar.

Signed at Waterloo, Iowa, this 9th day of April, 1908.

WILLIAM A. WELTY.

Witnesses:
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