

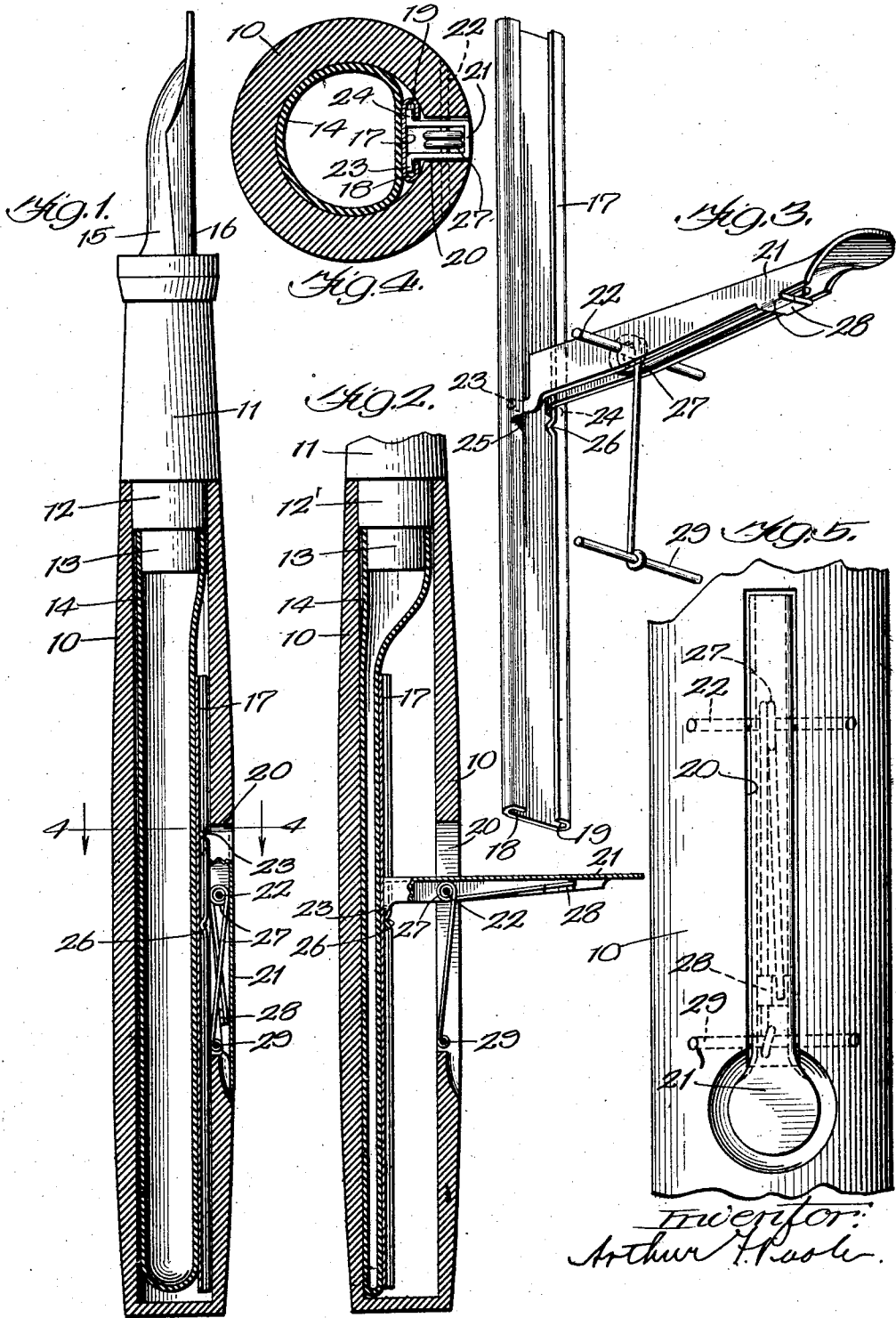
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SELF FILLING FOUNTAIN PEN

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SELF-FILLING FOUNTAIN PEN.

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My invention is a fountain pen of the particular variety which is equipped with a rubber inksack, which is adapted to be collapsed by a lever when it is desired to fill the pen.

The object of my invention is to provide a novel and efficient lever construction which is capable of cheap manufacture and which will be accurate in its operation.

My invention may be best understood by reference to the accompanying drawings, of which—

Fig. 1 is a view of the pen having part of the barrel in section;

Fig. 2 is a section of the pen barrel, showing the lever in its displaced position;

Fig. 3 is a detail of the lever and presser bar mechanism;

Fig. 4 is a section through the line 4—4 of Fig. 1, and

Fig. 5 is a top view of the lever.

Referring now to the drawings, 10 is a pen barrel, which is preferably made of hard rubber and into the forward end of which is frictionally fitted the rubber tube 11, having a portion 12 which fits frictionally in the pen barrel 10, and a nipple 13 which serves as a support for a collapsible inksack 14. The tube 11 also provides a support for the feed bar 15 and the pen nib 16. The aforementioned parts of the pen are all old and form no part of my present invention. Therefore I have illustrated them in but a conventional manner, it being understood that my invention is adapted to be used with any form of a pen having a collapsible inksack. I further have not thought it necessary to show any cap for a protection of the nib 16, it being understood that such a cap forms no part of my present invention and can be readily applied to the pen, as shown, by those skilled in the art.

Coming now to the parts peculiar to my present invention, referring to the figures, particularly Figures 3 and 4, it will be seen that I have provided a presser bar 17, which is made of a piece of flat metal having the edges turned up to form two parallel channels 18 and 19, said channels extending the entire length of the presser bar 17. The pen barrel 10 is provided with a longitudinal slot 20, in which slot a lever 21 is located, said lever being pivoted on a pin 22, extending through the pen barrel in the usual manner. The lever 21 is formed from a single piece

of flat metal and is provided with ears 23 and 24, which are adapted to engage the channels 18 and 19. The lever 21 is bent into a U-section, and the pivot bar 22 extends through both arms of the U, the lever turning freely on this bar. The channels 18 and 19 in the presser bar are provided with two depressions 25 and 26, which serve to prevent the presser bar from becoming disengaged from the ears 23 and 24 when the inksack is withdrawn from the pen. The depth of the depressions 25 and 26 is such that the presser bar may be snapped over the ears 23 and 24 when the pen is assembled, but after such assembly is made the weight of the presser bar 17 will be insufficient to move the depressions 25 and 26 over the ears 23 and 24, and consequently the presser bar is securely held in the interior of the pen.

In order to hold firmly the lever 21 in its closed position, I have provided a coiled spring 27, located in the interior of the lever and surrounding the pivot bar 22. One end of this spring is caught by the ears 28, formed in the sides of the lever, and the other end of the spring is retained by a bar 29, inserted through the slot 20. The lever is thus always given a tendency to remain in its closed position.

In normal circumstances the resiliency of the inksack 14 is sufficient to hold the lever firmly in a closed position. However, since the resiliency of this rubber sack cannot be depended upon, the spring 27 furnishes additional security.

The length of the lever 21 is such that when the sack is in the pen barrel, said sack will be jammed against the pen barrel and the lever 21 will be held in its open position, as shown in Fig. 2. This is effected by the pressure of the presser bar against the flat end of the lever, induced by the tendency of the ink sack to return to its normal condition, as clearly shown in Fig. 2. However, when the inksack is withdrawn from the barrel, then the lever 21 will not stay in an open position and will always be returned to its closed position by the force of the spring 27.

Many variations may be made from the precise structure herein shown without departing from the spirit of my invention, since I claim:

1. In a fountain pen, in combination, a casing provided with a longitudinal slot

therein, a transverse pivot pin in the slot, a lever pivotally related to the pin, provided at its rear end with a transverse holding member, a spring rod fashioned intermediate its ends to engage the pivot pin, the arms of which are normally disposed in substantial parallel relation, one of said arms being fastened in connection with the casing and the other arm engaging the transverse member on the lever.

2. In a fountain pen, a casing provided with a longitudinal slot, a pivot pin mount-

ed in said casing to extend across said slot, a lever pivoted on said pin, a holding member on said lever near its outer end, a spring engaging at its intermediate portion the pivot pin, one of the arms of said spring engaging said holding member and the other arm being secured to the casing on the same side of the pin as the holding member when the lever is in closed position.

In witness whereof I have hereunto subscribed my name.

ARTHUR F. POOLE.