J. BLAIR.

FOUNTAIN PEN.

APPLICATION FILED NOV. 16, 1910.

1,006,050. **Patented Oct. 17, 1911.**

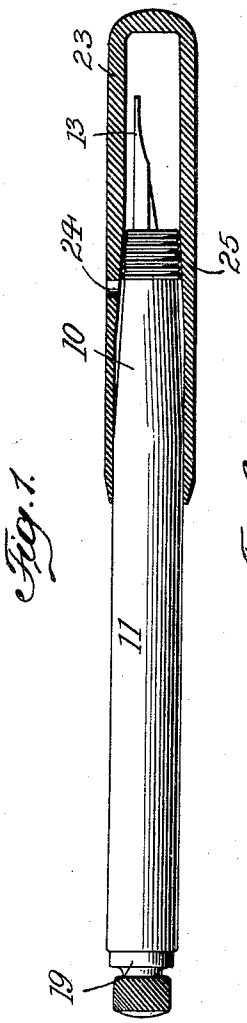

Fig. 1.

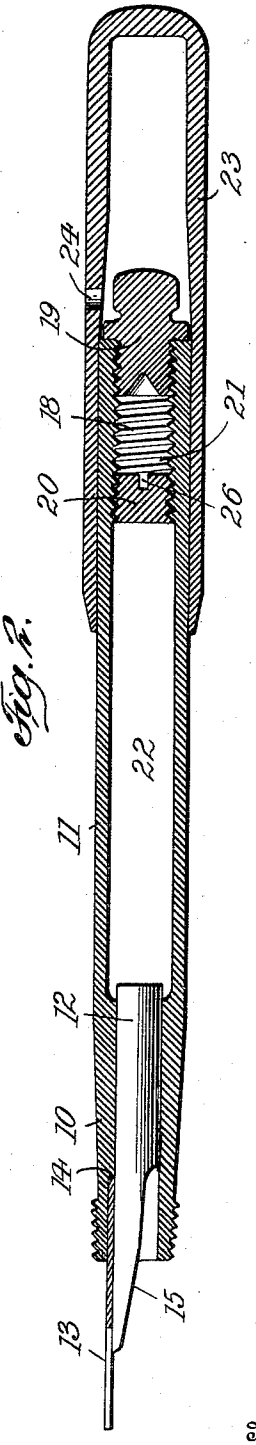

Fig. 2.

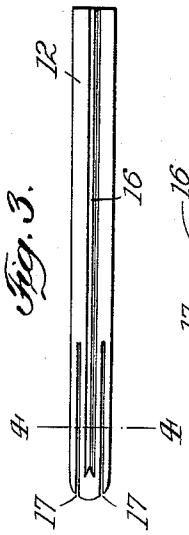

Fig. 3.

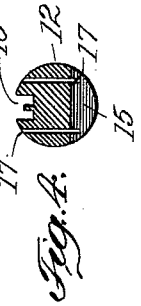

Fig. 4.

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UNITED STATES PATENT OFFICE.

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FOUNTAIN-PEN.

1,006,050. Specification of Letters Patent. Patented Oct. 17, 1911.

Application filed November 16, 1910. Serial No. 592,614.

To all whom it may concern:

Be it known that I, JOHN BLAIR, a citizen of the United States, residing at New York city, Brooklyn, county of Kings, and State of New York, have invented new and useful Improvements in Fountain-Pens, of which the following is a specification.

This invention relates to a fountain pen of novel construction, and more particularly to efficient means for preventing any objectionable overcharging of the barrel with ink during the filling operation.

In the accompanying drawing: Figure 1 is a longitudinal section partly in side view of a fountain pen embodying my invention; Fig. 2 a longitudinal section with the cap reversed; Fig. 3 a plan of the feed bar, and Fig. 4 an enlarged cross section on line 4—4, Fig. 3.

Into the reduced lower end 10 of the barrel 11, is removably fitted the feed bar 12, which projects outwardly beyond the barrel. The pen point 13 is introduced between the barrel and the feed bar and abuts against a shoulder 14 of the former as shown.

The feed bar is circular in cross section, and has a lower front bevel 15, so that the bar runs out into a sharp edge. Within the upper side of the bar, there is formed a centrally disposed longitudinal feed groove 16 which extends from the upper edge of the bar to a point somewhat above the lower edge, so that the groove is here closed.

Along the lower portion of bar 12, groove 16 is flanked by a pair of parallel longitudinal slits 17 which are placed at some distance laterally from groove 16, and do not communicate directly therewith. Slits 17 at their upper end commence preferably at a point somewhat below the middle of the feed bar, while at their lower end, they are cut entirely through the lower beveled edge of said bar and extend through the extreme lower end.

In writing, the ink flowing down groove 16 will be checked by the lower closed end thereof and will consequently overflow the feed bar at both sides. In this way the ink will be carried to slits 17, along which it will freely descend, so that a supplementary supply of ink is furnished to the pen point when the writer is doing heavy shading.

The upper end of barrel 11 is interiorly threaded for some distance as at 18, and is engaged by an upper threaded plug 19, which closes the top of the barrel. At a distance from said plug, there is contained within barrel 11, a second threaded plug or disk 20, that also engages thread 18, and is so located that an air chamber 21 is formed between the plugs. The engagement of plugs 19, 20 with barrel 11 is not air tight, but somewhat loose and permits air to be sucked from the lower ink chamber 22 of the barrel around plug 20 through chamber 21, and thence out around plug 19.

The cap 23 of the pen may be fitted in the usual manner, either over the upper or lower end of the barrel. It is provided at one side with a vent 24, which is arranged at such a distance from the end of the cap, that when the latter is projected over the pen point, the vent will be located above a joint 25 formed between the lower end of barrel 11 and cap 23. In this way air is effectively excluded from the pen point and the lower end of the barrel, when the pen is carried about.

To fill the pen, the lower end thereof is dipped into an ink well, plug 19 is slackened, and cap 23 is projected over the upper end of the barrel. The cap is now slowly reciprocated along the barrel a few times, vent 24 being closed by the thumb during the upstroke and opened during the downstroke. In this way the ink will be pumped into chamber 22, and will be held against overflowing by disk 20. That is to say, when the pumping operation is unduly prolonged, the flow of the ink will be checked by disk 20, so that it cannot enter chamber 21 in any appreciable quantity or ooze out around plug 19. Any objectionable overflow of ink is thus prevented and cleanliness is insured. Disk 20 is nicked as at 26 so that it may be readily grasped and secured in position and

that it may be so adjusted within barrel 11, that the relative size of ink chamber 22 and air chamber 21, may be varied.

I claim:

1. A fountain pen comprising a barrel having an inner thread, a plug closing the upper end of the barrel, and an inner disk loosely threaded within the barrel to permit a passage of air while checking a simultaneous passage of ink.

2. A fountain pen comprising a barrel having an upper threaded end, an outer plug and an inner disk, both loosely threaded within the barrel to permit a passage of air while checking a simultaneous passage of ink.

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