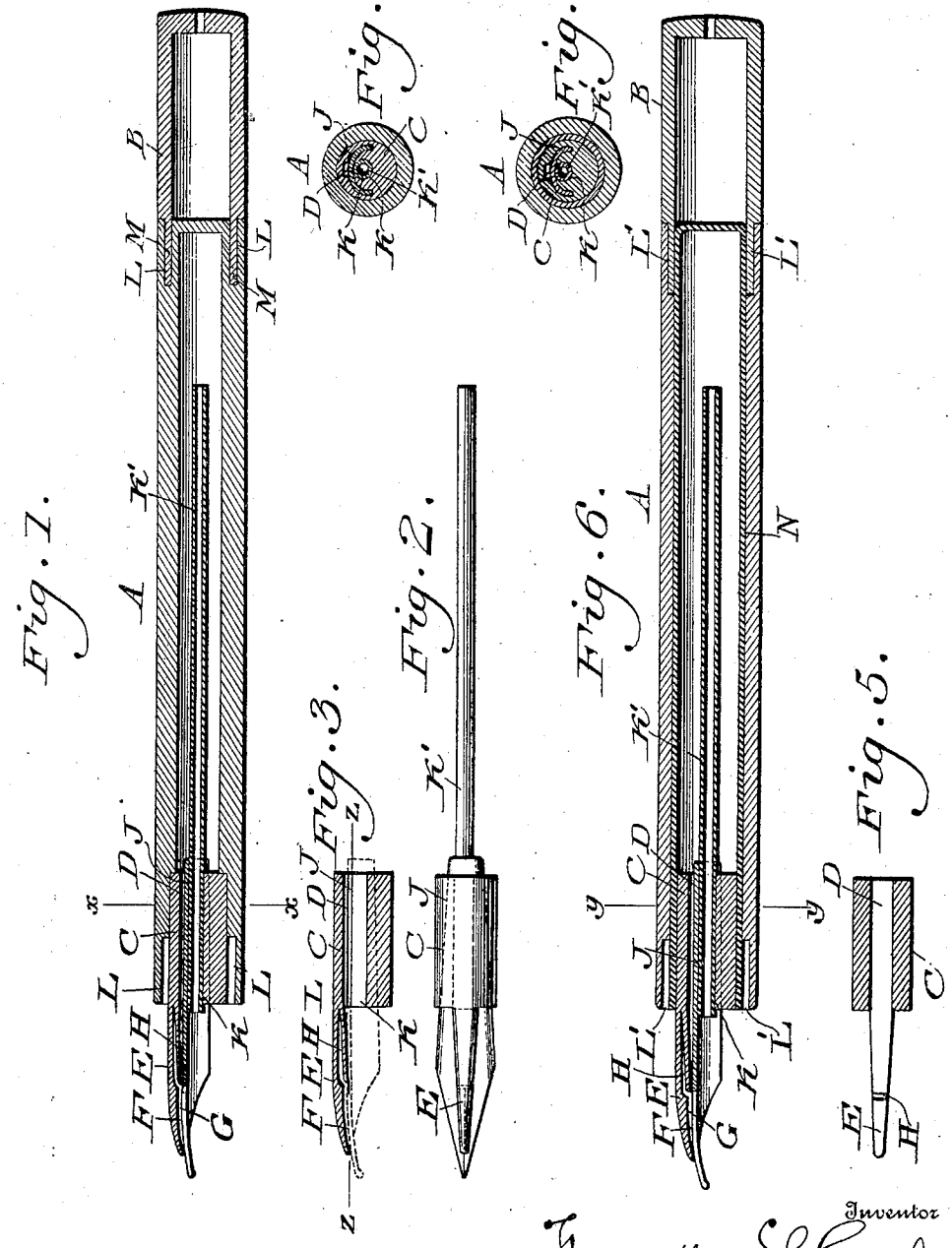
No. 673,359. Patented Apr. 30, 1901.

F. S. COOLEY.

FOUNTAIN PEN.

(No Model.) (Application filed Sept. 12, 1900.)



Witnesses

P. F. Eagles.

L. Doubille.

Inventor

Franklin S. Cooley.

By Wiedersheim & Fairbanks.

Attorneys

UNITED STATES PATENT OFFICE.

FRANKLIN S. COOLEY, OF PHILADELPHIA, PENNSYLVANIA.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 673,359, dated April 30, 1901.

Application filed September 12, 1900. Serial No. 29,761. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN S. COOLEY, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Fountain-Pens, of which the following is a specification.

My invention consists of a fountain-pen provided with means for supplying the top or back of the pen with ink without liability to clog or otherwise cause stoppage of the flow of the ink, said means being hereinafter described, and pointed out in the claim which follows the specification.

Figure 1 represents a longitudinal section of a fountain-pen embodying my invention. Fig. 2 represents a plan view of a detached portion thereof. Fig. 3 represents a sectional view of a detached portion. Fig. 4 represents a section on line *x x*, Fig. 1. Fig. 5 represents a section of a portion on line *z z*, Fig. 3. Fig. 6 represents a longitudinal section of another form of my invention. Fig. 7 represents a section on line *y y*, Fig. 6.

Similar letters of reference indicate corresponding parts in the figures.

A designates the barrel of the pen, and B the cap thereof. In the forward end of the barrel is fitted the plug C, which is provided with a longitudinally-extending duct D, the same being in communication with the barrel and is adapted to direct the ink therefrom to the back of the pen.

E designates a tongue which extends forward from the body of the plug C over the back F of the pen and has on its under side a passage G, which is in communication with the duct D and terminates in front near the nib of the pen. In said tongue E is the channel H, whose mouth opens into the passage G, adjacent to the place where the tongue meets the slit of the pen.

The plug C is provided with a recess J to receive the shank of the pen and an opening K for the forward end of the air-supply tube K′, the latter entering the barrel A.

It will be seen that when the pen is in use the ink from the barrel flows through the duct D and enters the passage G, and some of it is received in the channel H as a supplemental reservoir.

In writing the pressure on the pen is in a measure transmitted to the forward end of the tongue E, which is somewhat flexible in its nature, whereby it yields and opens the mouth of the reservoir H, allowing a small supply of ink to leave the latter, and thus start the supply of ink to the pen, it being remembered that some of the ink flows through the duct D from the barrel A and joins that flowing from the reservoir H.

It will be seen that by the provision of the supplementary reservoir H, I prevent clogging of the ink at the forward end of the duct, which clogging causes the flow of ink to cease, and also obviate the necessity of jolting or throwing the barrel or holder in order to force the ink to the point of the pen. It also overcomes the objection to top or back-feed fountain-pens, as the flexibility or elasticity of the pen is preserved, the tongue, owing to the channel therein, yielding sufficiently when pressed by the back of the pen so as not to materially interfere with the proper action of the nib portion of the pen.

In the ends of the barrel A are grooves L, which extend in the longitudinal direction thereof. In the rear end of the barrel the groove is formed by the two walls of the same, while at the forward end of the barrel the groove is formed by the recessed wall of said barrel and the exterior surface of the plug C.

The inner end of the cap B is formed with a reduced neck M, which is adapted to enter either of the grooves L, and thus retain its hold on the barrel, owing to the double walls with which said neck contacts, as most apparent at the right-hand side of Fig. 1.

In Figs. 6 and 7 the barrel A is provided with an interior tube N, the same receiving the supply of ink and having its ends formed, in connection with the said barrel, with the grooves L′ for the reception of the neck M of the cap B, the operation being similar to that in the other figures.

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

A fountain-pen provided with a feeding-plug adapted to communicate with the barrel thereof, and an ink-conveying tongue which extends from said plug so as to extend over the back of the pen and having a reservoir which is in communication with said tongue.

FRANKLIN S. COOLEY.

Witnesses:
JOHN A. WIEDERSHEIM,
C. D. MCVAY.