

E. V. WHITON.
 FEED BAR FOR FOUNTAIN PENS.
 APPLICATION FILED MAR. 28, 1908.

910,980.

Patented Jan. 26, 1909.

Fig. 1.

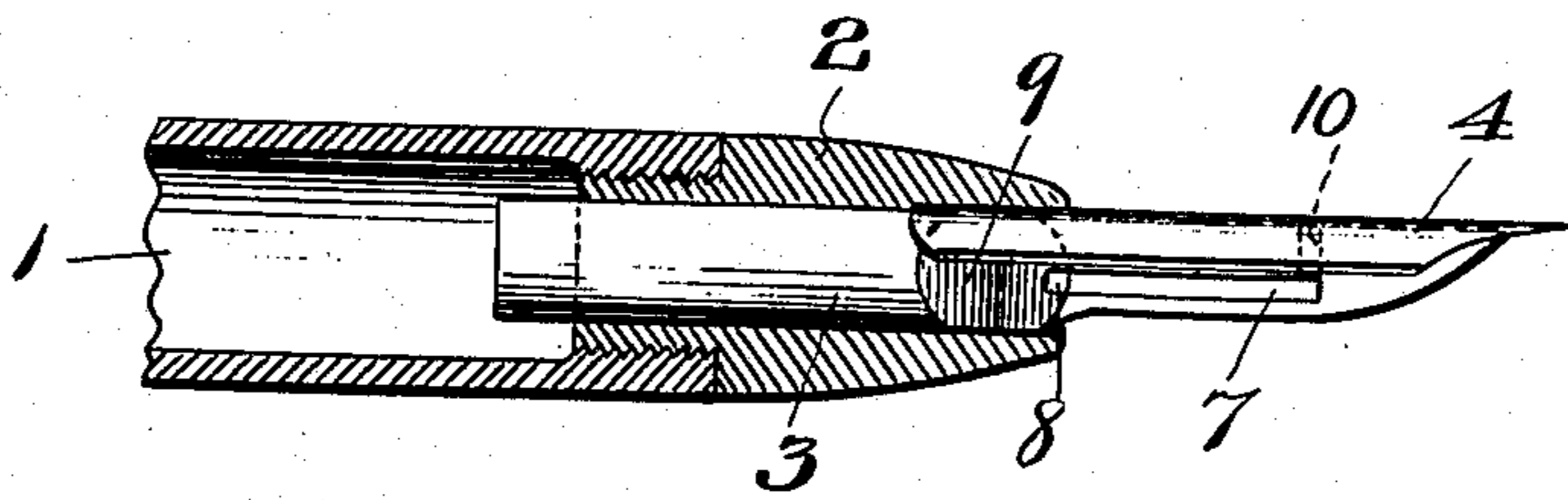


Fig. 2.

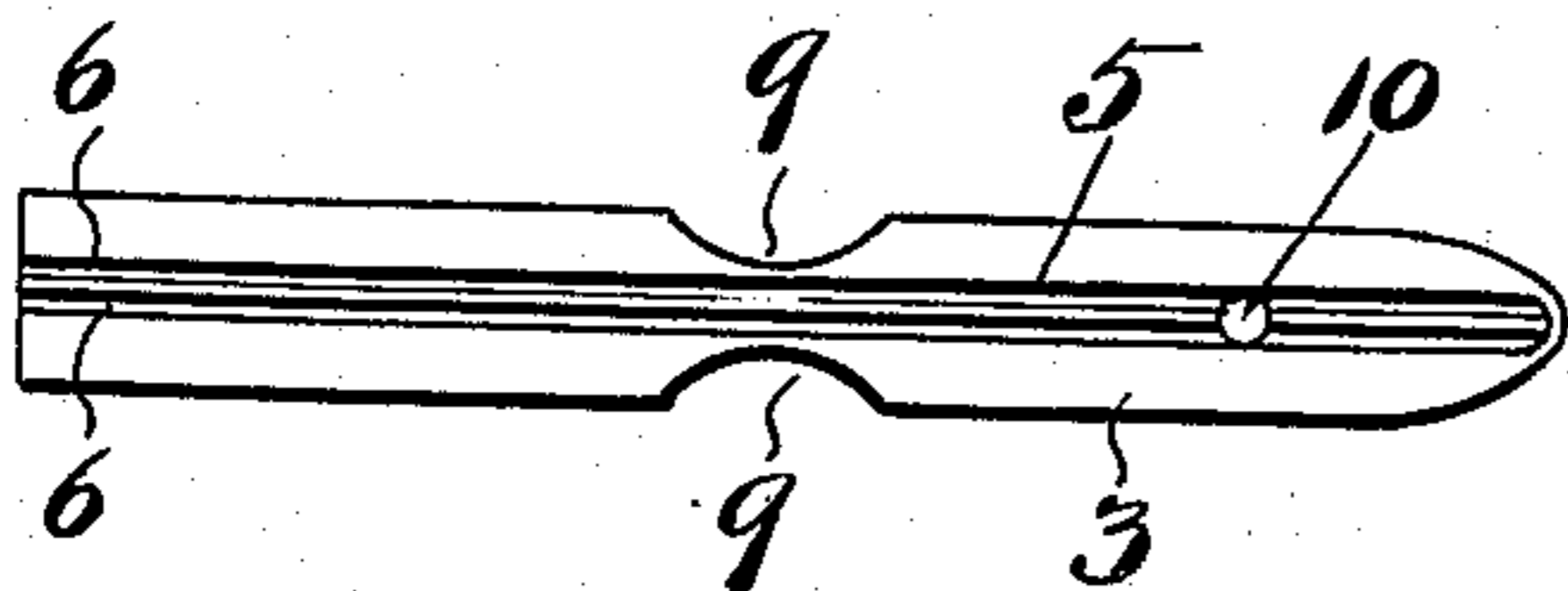


Fig. 3.

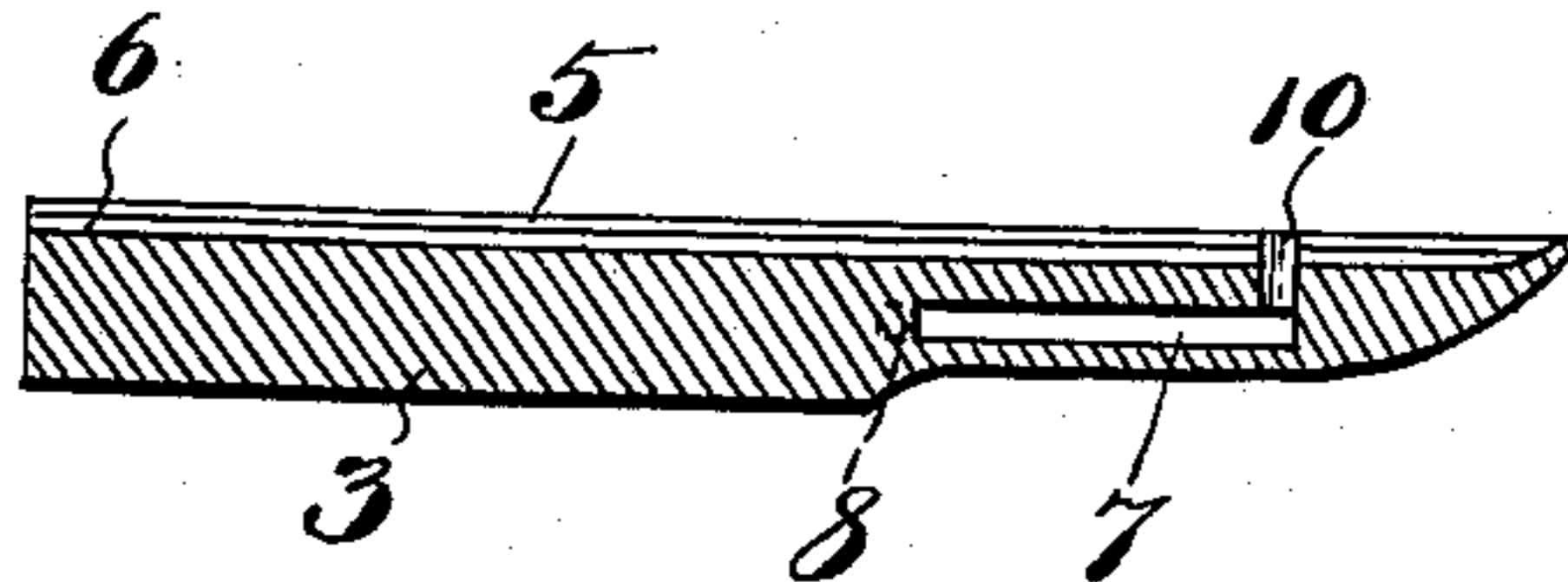
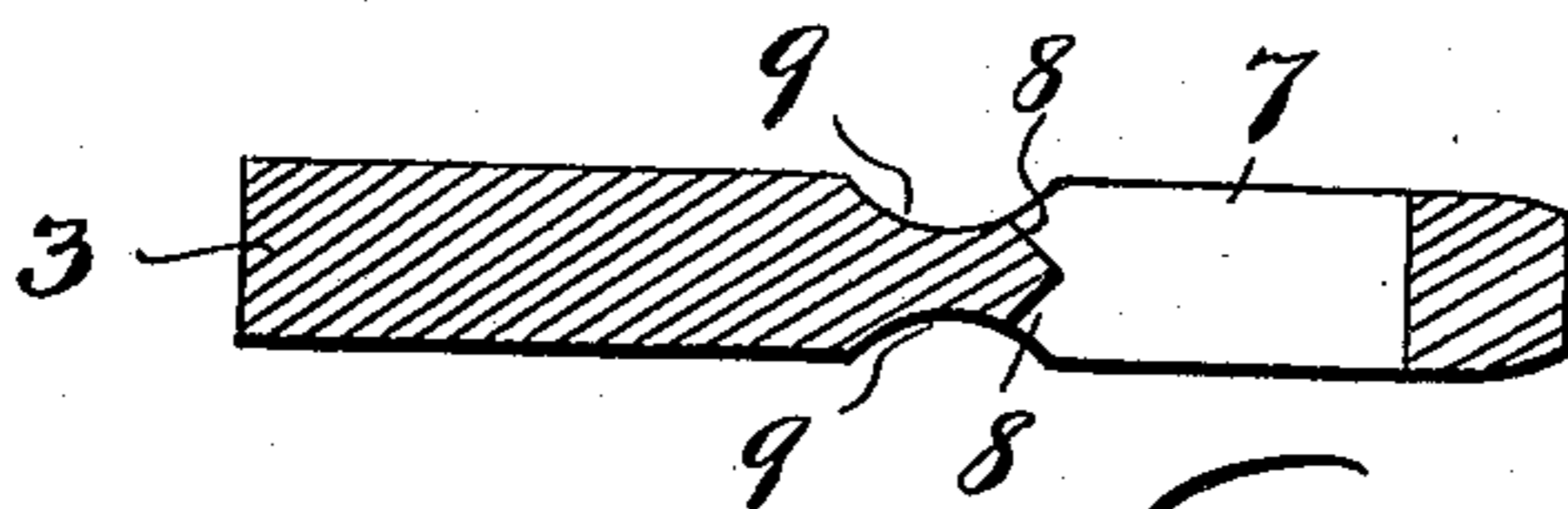


Fig. 4.



Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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FEED-BAR FOR FOUNTAIN-PENS.

No. 910,980.

Specification of Letters Patent.

Patented Jan. 26, 1909.

Application filed March 28, 1908. Serial No. 423,892.

To all whom it may concern:

Be it known that I, EDWARD V. WHITON, a citizen of the United States, residing at Janesville, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Feed-Bars for Fountain-Pens, of which the following is a specification.

My invention relates to the feed bars in fountain pens and has for its object the improvement of the feed mechanism by providing an auxiliary reservoir for the ink adjacent to the outer end of the bar, under the feed duct, and with a hole connecting the feed duct and reservoir so that the surplus ink is taken up and prevented from dropping from the pen point. This auxiliary reservoir also takes up the ink forced out of the main reservoir by the expansion caused by the heat of the body while carrying the pen in the pocket. To form a further reservoir for the overflow caused by the heat of the body in carrying the pen I provide notches at each side of the bar that communicate with the auxiliary reservoir and form with the sides of the end of the pen holder other auxiliary reservoirs.

The construction and operation of my improved feed bar will be described hereinafter and illustrated in the accompanying drawings in which—

Figure 1 is a side view of a fragment of a fountain pen having my improved feed bar secured therein, Fig. 2, a top plan view of the feed bar, Fig. 3, a vertical longitudinal sectional view of the feed bar, Fig. 4, a cross section of the bar, and Fig. 5, a horizontal longitudinal sectional view thereof.

In the drawings similar reference characters indicate corresponding parts throughout the several views.

1 indicates the main reservoir having the feed pipe 2 secured in its end in which is mounted the feed bar 3 and pen point 4 in the usual manner.

The feed bar 3 has a feed duct 5 in its upper side consisting of a groove having depressions 6 in its lower surface to facilitate the flow of the ink through the duct. 7 indicates a slot, cut transversely of the bar 3, open at the sides of the bar but having its forward end closed, while the rear end is divided by angular shoulders 8 opening to notches 9 in the sides of the bar. 10 indi-

cates a hole connecting the duct 5 with the forward end of slot 7. The purpose of this construction of feed bar is as follows: The ink from the main reservoir 1 is fed through duct 5 to the pen point 4. Should the ink feed too rapidly it passes through hole 10 into slot 7 which acts as an auxiliary reservoir to hold the ink until it is required to augment the flow through the duct 5 in more rapid writing. The notches 9 form in conjunction with the inside of the feed pipe 2 other auxiliary reservoirs when the pen is held upright in the pocket to hold the overflow caused by the expansion of the ink in the main reservoir 1 due to the heat of the body. When the pen is lowered to a writing position the ink in the notches 9 flows into the slot 7 and through hole 10 to the pen so as to insure a supply of ink at the beginning of the writing and until the flow is established through duct 5.

The depressions 6 in the bottom of the groove forming the duct 5 permits the maintenance of the flow of ink through the duct should any foreign matter, such as a grain of sand or sediment from the ink, get into the duct.

Having thus described my invention what I claim is—

1. A feed bar for fountain pens provided with a feed duct, a slot open at the sides of the bar and forming a reservoir for surplus ink, and a hole connecting the duct and slot to convey the surplus ink to said reservoir slot.

2. In a fountain pen, in combination with the feed pipe, the feed bar mounted in said feed pipe provided with a feed duct, a slot, a hole connecting said duct and slot, and notches in its sides forming with the bore of the feed pipe reservoirs, said slot and notches being in communication.

3. In a fountain pen, in combination with the feed pipe, the feed bar mounted in said feed pipe provided with a feed duct, a transverse slot having angular shoulders at its inner end, notches in the sides of the bar communicating with said transverse slot at its inner end, said notches forming with the bore of the feed pipe auxiliary reservoirs, and a hole connecting the front end of the duct and said slot.

4. In a fountain pen, in combination with the feed pipe, the feed bar mounted in said

feed pipe provided with a feed duct consisting of a groove and longitudinal depression in the bottom of said groove, a transverse slot having angular shoulders at its inner end,
5 notches in the sides of the bar communicating with said transverse slot at its inner end, said notches forming with the bore of the feed pipe auxiliary reservoirs, and a hole con-

necting the forward end of the slot and the feed duct.

In testimony whereof I hereto affix my signature in the presence of two witnesses.

EDWARD V. WHITON.

Witnesses:

EDWIN F. CARPENTER,
HENRY F. NOTT.