

(No Model.)

M. W. MOORE.
FOUNTAIN PEN.

No. 501,895.

Patented July 18, 1893.

Fig. 1.

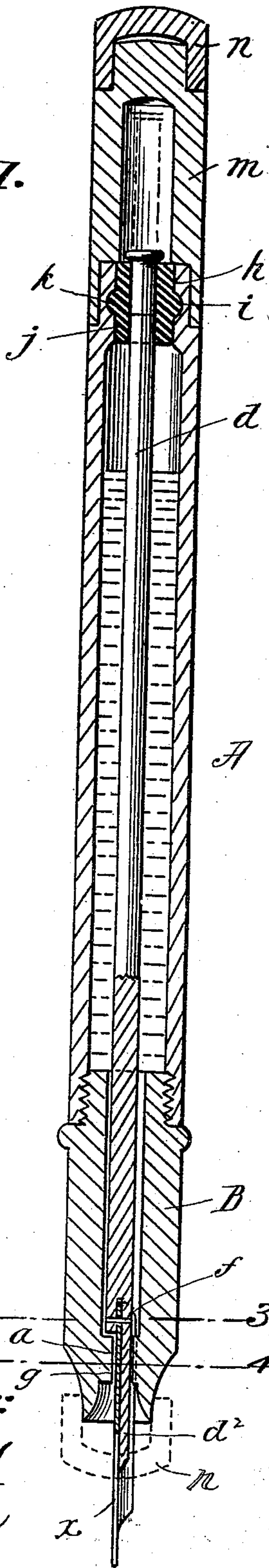


Fig. 2.

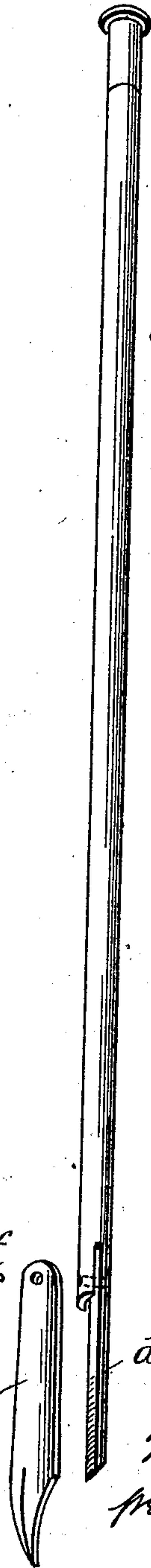


Fig. 5.



Fig. 3.

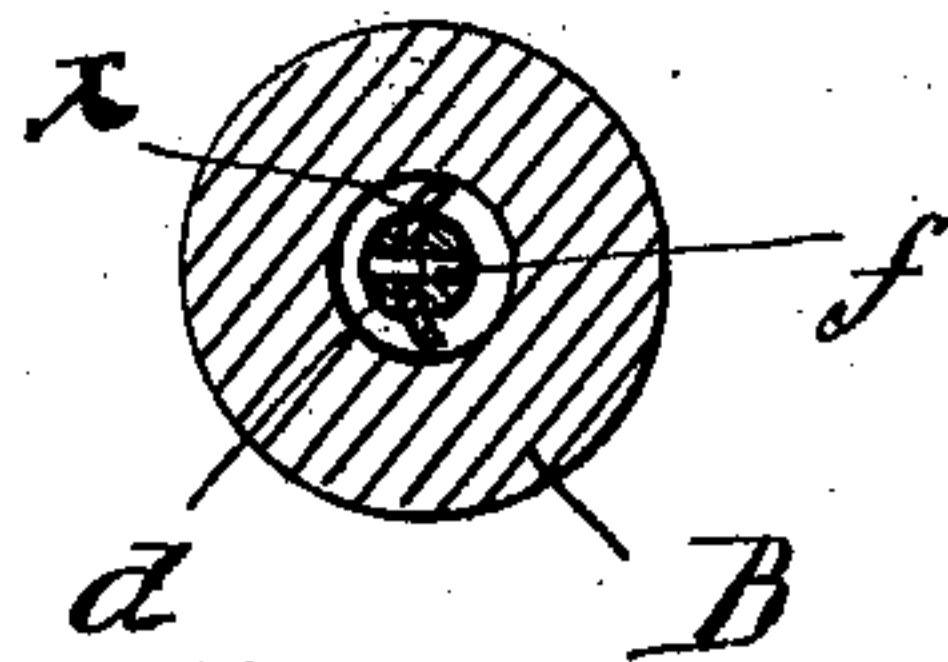
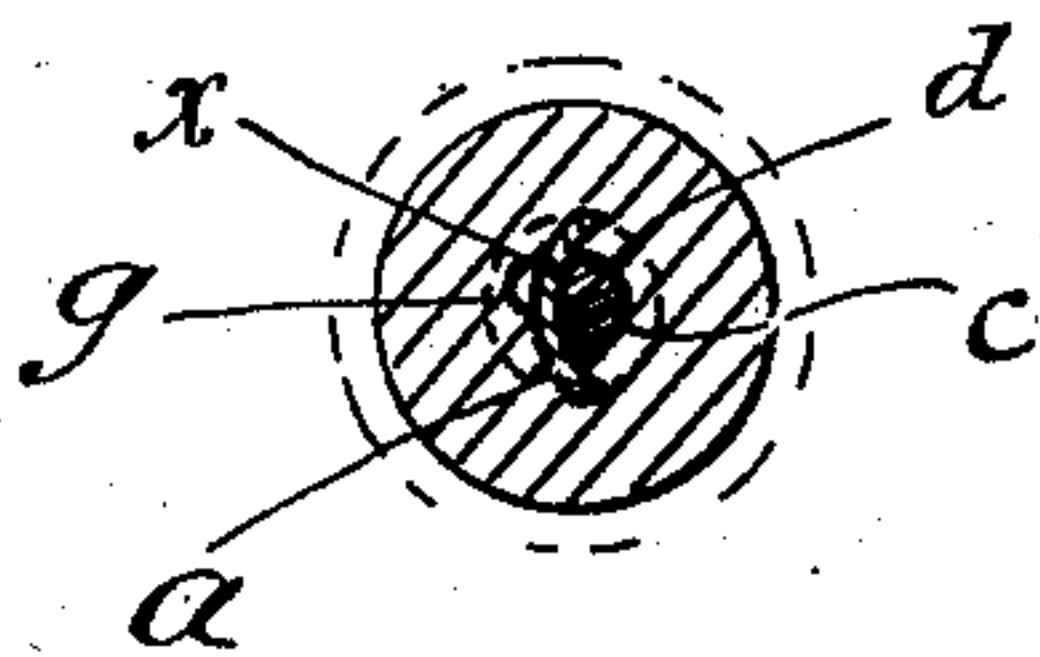


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

MORRIS W. MOORE, OF HOLYOKE, MASSACHUSETTS, ASSIGNOR OF FIVE-SIXTHS TO JOSEPH E. CHASE AND WILLIAM D. PARK, OF SAME PLACE.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 501,895, dated July 18, 1893.

Application filed January 13, 1893. Serial No. 458,273. (No model.)

To all whom it may concern:

Be it known that I, MORRIS W. MOORE, a citizen of the United States, residing at Holyoke, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Fountain-Pens, of which the following is a specification.

The object of this invention is to so improve the construction of fountain pens that the pen may be carried in the pocket without liability of leakage, a characteristic of the pen to which these improvements pertain being that the writing pen is longitudinally movable to be projected beyond, or withdrawn within, the lower end of the tip section.

The invention consists in constructions and combinations of parts substantially as will hereinafter fully appear and be covered by the claims.

The improvements are illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal section through the improved pen. Fig. 2 is a perspective view showing the writing-pen and the retracting rod therefor. Figs. 3 and 4 are cross-sections, respectively, on the lines 3—3 and 4—4 of Fig. 1, and Fig. 5 is a sectional view centrally and longitudinally through the upper portion of the aforesaid rod.

In the drawings A represents the barrel or reservoir having the tip section, B, connected at its lower end by the screw-thread joint, in the usual manner. The lower portion of this tip section has longitudinally through it an opening, *a*, of a transverse contour substantially as seen in Fig. 4 in which the pen, *x*, is fitted for a somewhat close, though free, longitudinal sliding movement.

The retracting rod, *d*, which is longitudinally extended within the barrel and also downwardly extended through the greater portion of the length of the tip section has a connection, in any suitable manner, with the upper end of the pen, and this rod extends with an ink-tight fit through an opening therefor in the upper end of the barrel. As shown, and preferably constructed, the forward end of the rod is split to embrace the shank of the pen, the engagement being rendered more positive by the rivet, *f*, and the rod has its portion at one side of the split

forwardly extended as seen at *d*², through and beyond the lower extremity of the tip section to lie against the under side of the pen at the middle line thereof. The tip section has the opening, *a*, widened, as at *c*,—again see Fig. 4,—to accommodate this extension of the rod. A suitable duct is furthermore provided to lead down to the tip section for the conveyance of ink from the reservoir to the pen, the form of duct here indicated at *g*, being efficient for this purpose. The upper end of the rod, in its passage through the upper end of the barrel, is preferably packed by the provision thereat of a sleeve of soft rubber or equivalent compressible material. As shown the barrel has in its upper end the axial opening, *h*, with the peripheral depression, *i*, while the sleeve, *j*, of soft rubber has the external circumferential bead, *k*, which sinks into the said depression and prevents, as the rod is moved, endwise displacement of the sleeve by reason of the friction caused by the constrictive contact which it has against the aforesaid rod, *d*.

The cap, *m*, is fitted upon the upper end of the reservoir to close such end, to conceal the pen-retracting-rod and to serve as an additional safeguard against any possible oozing or leakage of ink thereat, and the cap, *n*, is adapted to be removably fitted upon the lower end of the tip section when the pen is retracted within such end. To permit the retraction of the pen, the cap, *m*, is removed and the rod upwardly drawn when the said cap is replaced, and at this time the cap, *n*, is placed upon the end of the tip section when the pen may be safely carried in the pocket without danger of leakage.

The user, in taking the pen from his pocket, after removing the cap, *n*, and placing it upon the cap, *m*, draws the latter from the upper end of the barrel and forces through the rod, *d*, the pen, downwardly, in readiness for writing when said cap, *m*, (with the cap, *n*, thereon) is placed upon the upper end of the barrel. To fill the reservoir the rod is held by its upper end and the tip section unscrewed free from the barrel when it may be slid off from over the lower end of the rod and pen. It will, however, be perceived that the rod, as indicated in Fig. 5, is formed by screw-united

sections; and, therefore, by turning the tip section and with it the pen and lower section of the rod,—holding the upper section of the rod against turning, the tip, on being removed from the barrel may carry with it also the pen and said lower section of the retracting-rod,—a reversal of these movements of course being required for the re-establishment of the conditions to use the pen.

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

1. A fountain pen having a barrel or reservoir provided with an opening in its upper end, a longitudinally movable rod located in said barrel having one end extending through the opening in the upper end of the barrel and a pen secured to the rod at its other end, a tip-section secured to the barrel and provided with a longitudinal passage constituting a way for the movement of the pen in and out of said section and a groove for the passage of the ink, a removable cap on the upper end of the reservoir having an opening for the reception of the rod, and another cap to close the lower end of the tip-section and

adapted to fit on the upper cap, all substantially as described.

2. In a fountain pen, the combination with the reservoir or barrel having in its forward end the tip with the pen endwise movable therein, and with a suitable ink-way leading from the reservoir to the pen, of a rod located within the reservoir and having one end formed split to embrace the upper end of the pen and having the uniting rivet and the rod having an extension downwardly under the pen, and said rod having its upper end projected through a suitably packed opening therefor in the upper end of the barrel, substantially as described.

3. In a fountain pen, the combination with the barrel or reservoir having in its upper end a circular opening with a peripheral depression, the annular packing of soft rubber having an external circumferential bead and the rod movable through the packing, substantially as and for the purpose set forth.

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Witnesses:

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