

No. 843,338.

PATENTED FEB. 5, 1907.

C. A. HAYWARD.
NON-LEAKABLE FOUNTAIN PEN.
APPLICATION FILED MAY 7, 1906.

Fig. 1

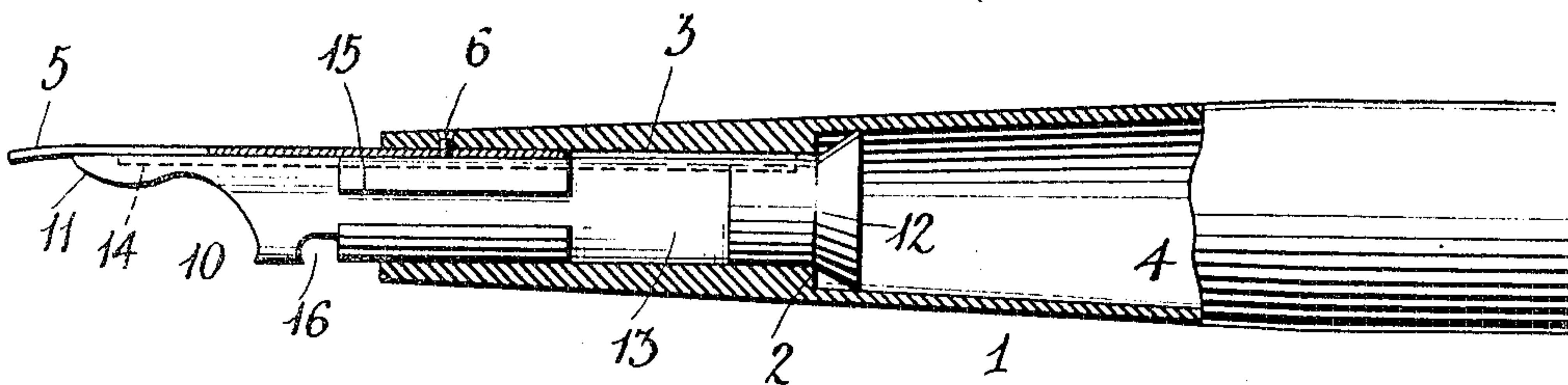


Fig. 2

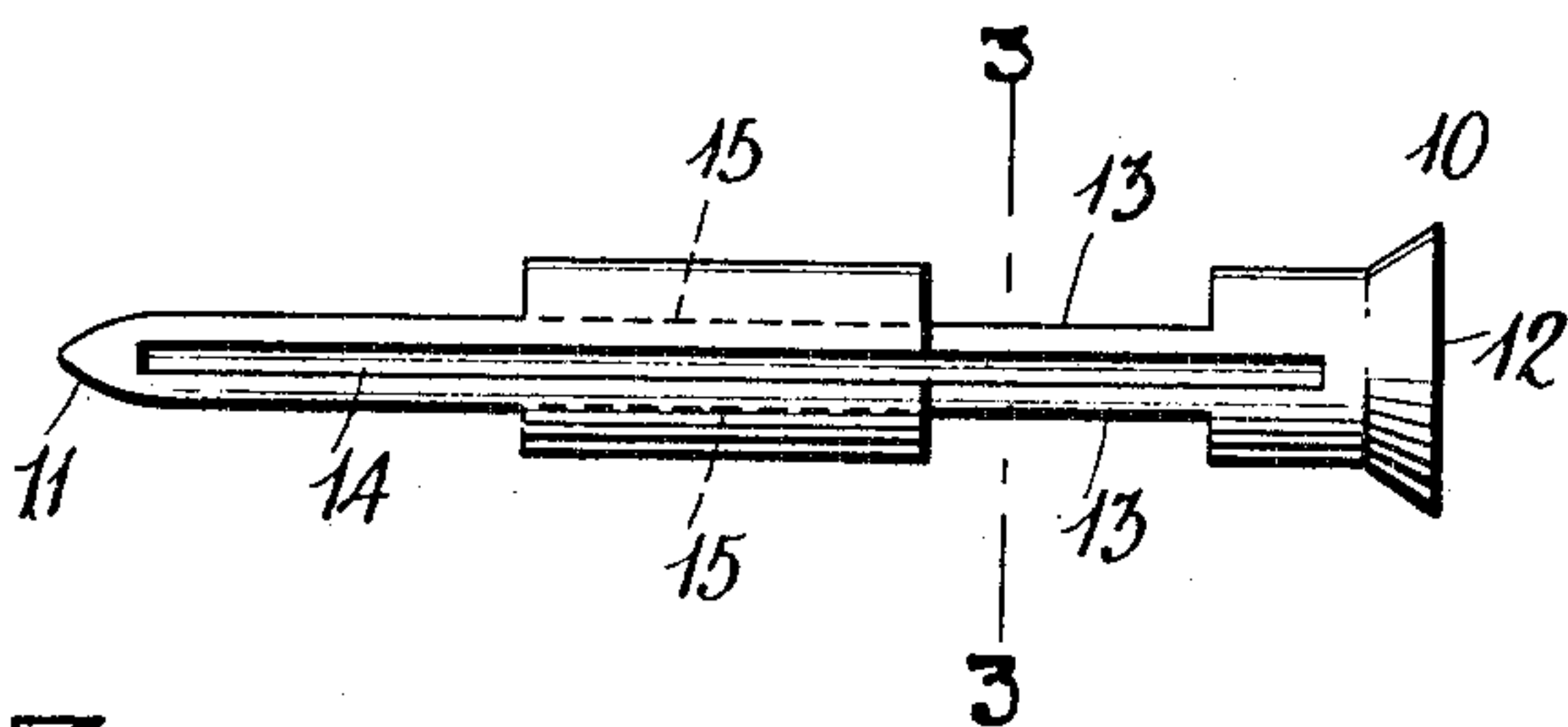
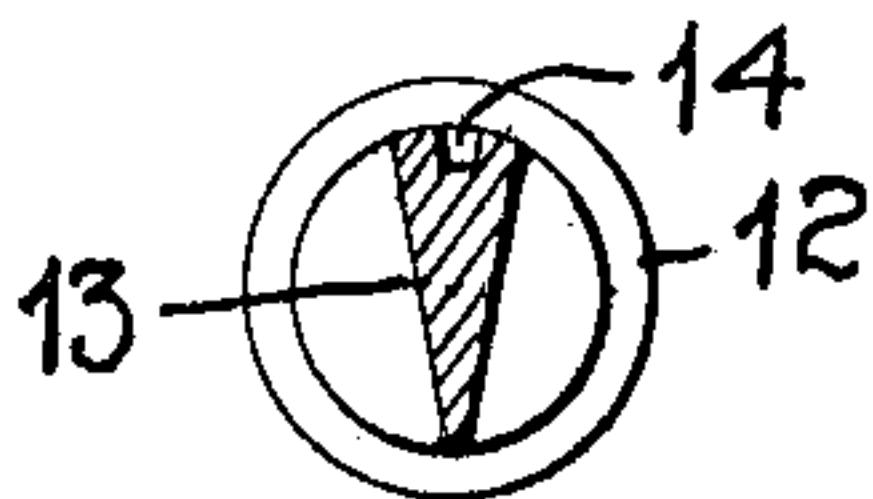


Fig. 3.



Witnesses

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NON-LEAKABLE FOUNTAIN-PEN.

No. 843,338.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed May 7, 1906. Serial No 315,677.

To all whom it may concern:

Be it known that I, CLYDE A. HAYWARD, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Non-Leakable Fountain-Pens, of which the following is a specification.

This invention relates to a combined feed and filling attachment for fountain-pens.

The object of the invention is to provide a combined feed and filling attachment for fountain-pens in which all possibility of leakage is prevented.

In the accompanying drawings, in which like reference characters represent corresponding parts in all the figures, Figure 1 represents a longitudinal section of a fountain-pen-holder with this improved attachment shown in side elevation therein. Fig. 2 represents a plan view of the attachment detached. Fig. 3 represents a transverse section taken on the line 3 3 of Fig. 2.

In the embodiment herein shown a jointless hollow holder 1 is provided with an interior annular shoulder 2 near its open end. This shoulder is preferably formed by reducing the diameter of the opening near its outer end for about seven-eighths of an inch to form a chamber 3, in which the feed and filling attachment is adapted to slide and at the rear of which is located the ink-reservoir 4. A pen-point 5 is detachably and tightly secured in the open end of said holder, preferably by means of a small screw 6. This improved feed and filling attachment comprises a stock 10, adapted to slide in the chamber 3 of the holder 1, and is preferably formed from a solid piece of hard rubber or other suitable material of the desired size, which is about one and one-half inches long and three-sixteenths of an inch in diameter for a medium-sized pen. This attachment is formed with a pointed outer end 11 to fit the pen-point 5 and an enlarged tapered inner end 12, adapted to fit in and tightly close the inner end of the chamber 3. The rear end of the stock 10 is cut away on either side to form two spaces or chambers, as 13, the central partition left being wider at its top than at its bottom and provided with a longitudinal feed-groove 14, which extends nearly to the point of the stock and supplies ink to the pen-point for writing. This feed-groove 14 extends at its rear or inner end to a point beyond the cut-away sides to provide for the

regulation of the supply of ink to the pen-point. Longitudinal channels, as 15, are formed in the opposite sides of the stock and open into the spaces, as 13, through which ink may be inserted to fill the holder.

The front end of the stock is provided with means for sliding the attachment back and forth in the chamber 3 and, as shown, comprises a notch 16, formed therein, in which may be inserted the finger-nail, a knife-blade, or other suitable means for moving the stock back and forth as described.

In the operation of this device a hollow jointless holder has a pen-point 5 secured to its open end, and the feeding and filling attachment is inserted therein. When it is desired to fill the holder, the sliding member or stock 10 is moved backward by means of the notch 16 at its forward end. This brings the spaces, as 13, into communication with the ink-reservoir 4, and ink may be fed thereinto by injecting it into the channels 15, through which it flows freely into the spaces, as 13, communicating with the hollow ink-reservoir 4. To close the reservoir tightly and prevent leakage of the ink through the pen-point, the sliding member 10 is drawn forward until the tapered end 12 fits tightly against the shoulder 2 and closes the reservoir 4 in a manner similar to that in which a stopper closes a bottle.

When it is desired to use the pen, the sliding member 10 is pushed slightly back to expose the groove 14 about one-sixteenth of an inch, more or less, to increase or diminish the flow of ink to the pen-point, as desired.

I claim as my invention—

1. In a fountain-pen the combination of a hollow holder having an interior annular shoulder, and a feed member mounted to slide in said holder and having a valve adapted to engage said shoulder and close said holder said feed member having a channel terminating near said valve to provide for the filling of the holder therethrough.

2. In a fountain-pen the combination of a hollow holder having an interior annular shoulder, and a feed member mounted to slide in said holder and having longitudinal channels extending to a point near its inner end, and a valve on said inner end to engage said shoulder and tightly close the holder.

3. A sliding feed attachment for a fountain-pen comprising a stock having a notch at one end and a valve at the other end, an ink-supply groove in the top of said stock,

and cut-away portions at its opposite sides forming channels which communicate with the ink-reservoir when the attachment is slid into the holder to permit its being filled.

5 4. A feed attachment for a fountain-pen comprising a stock having side channels, and an ink-supply groove extending longitudinally thereof to a point beyond said channels at the rear end of said stock, and an enlarged tapered rear end.

10 5. In a fountain-pen, the combination of a hollow holder open at one end and closed at its other end, said holder having an annular shoulder formed on the interior thereof, and a feed member mounted to slide in said open end of the holder, said feed member having longitudinal side channels, means for moving said member back and forth, and means for engaging said annular shoulder to limit the forward movement of said member and tightly close the holder.

15 6. In a fountain-pen, the combination of a hollow holder made in one piece open at one end and closed at the other, a pen-point mounted in said open end, and a feed mem-

ber mounted to slide in said open end and having means to permit the insertion of ink into said holder, and means for tightly closing said holder against the passage of ink therefrom.

30 7. In a fountain-pen, the combination of a hollow holder made in one piece open at one end and closed at the other, a pen-point mounted in said open end, and a feed member mounted to slide in said open end and having means to permit the insertion of ink into said holder, and a valve on the inner end of the feed member to tightly close the holder.

35 8. In a fountain-pen, the combination of a hollow holder made in one piece open at one end and closed at the other, a valve-seat in said holder, a feed member sliding in said holder and having a valve to engage said seat and tightly close the holder, said feed member being provided with filling channels.

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Witnesses:

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