

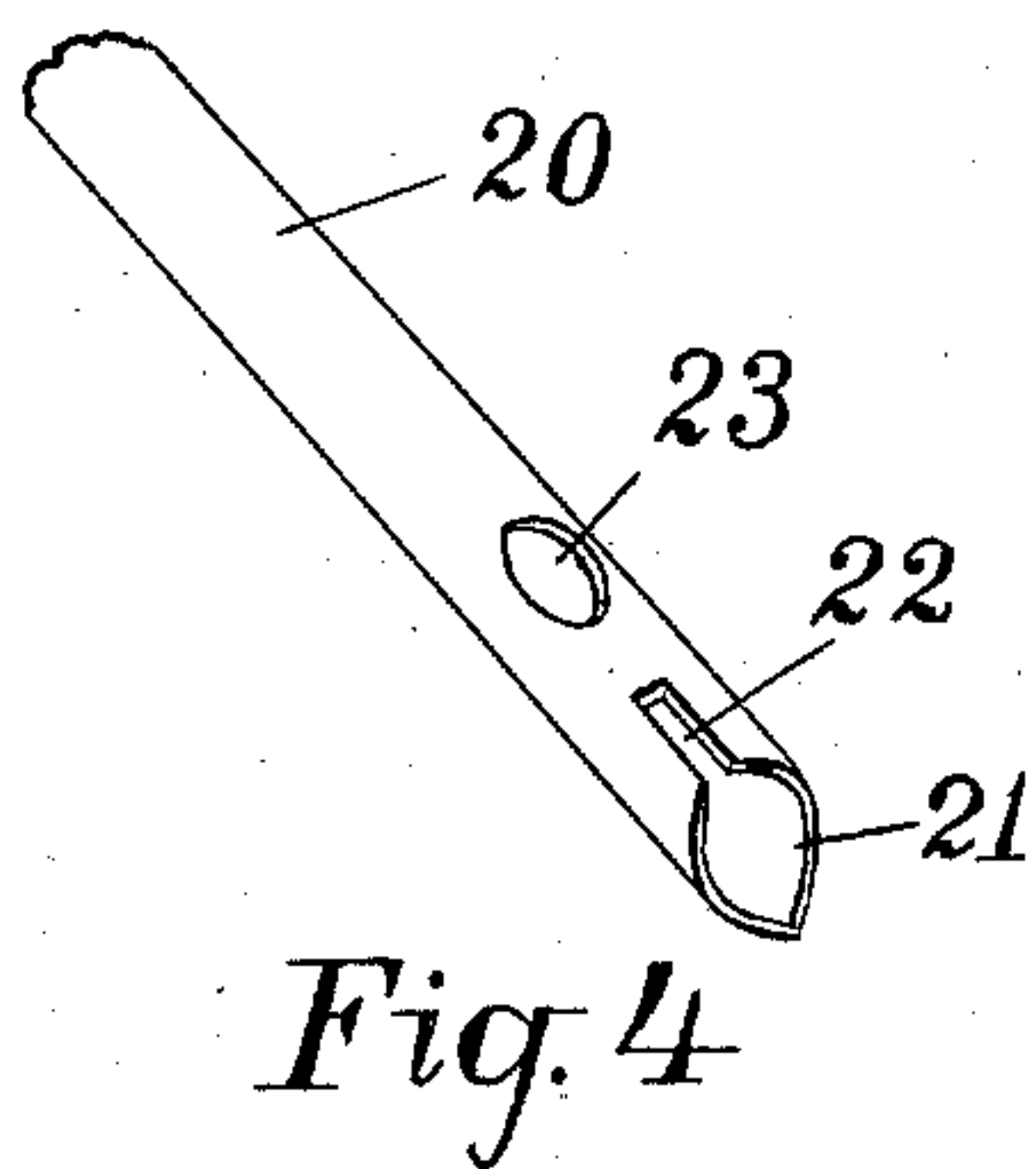
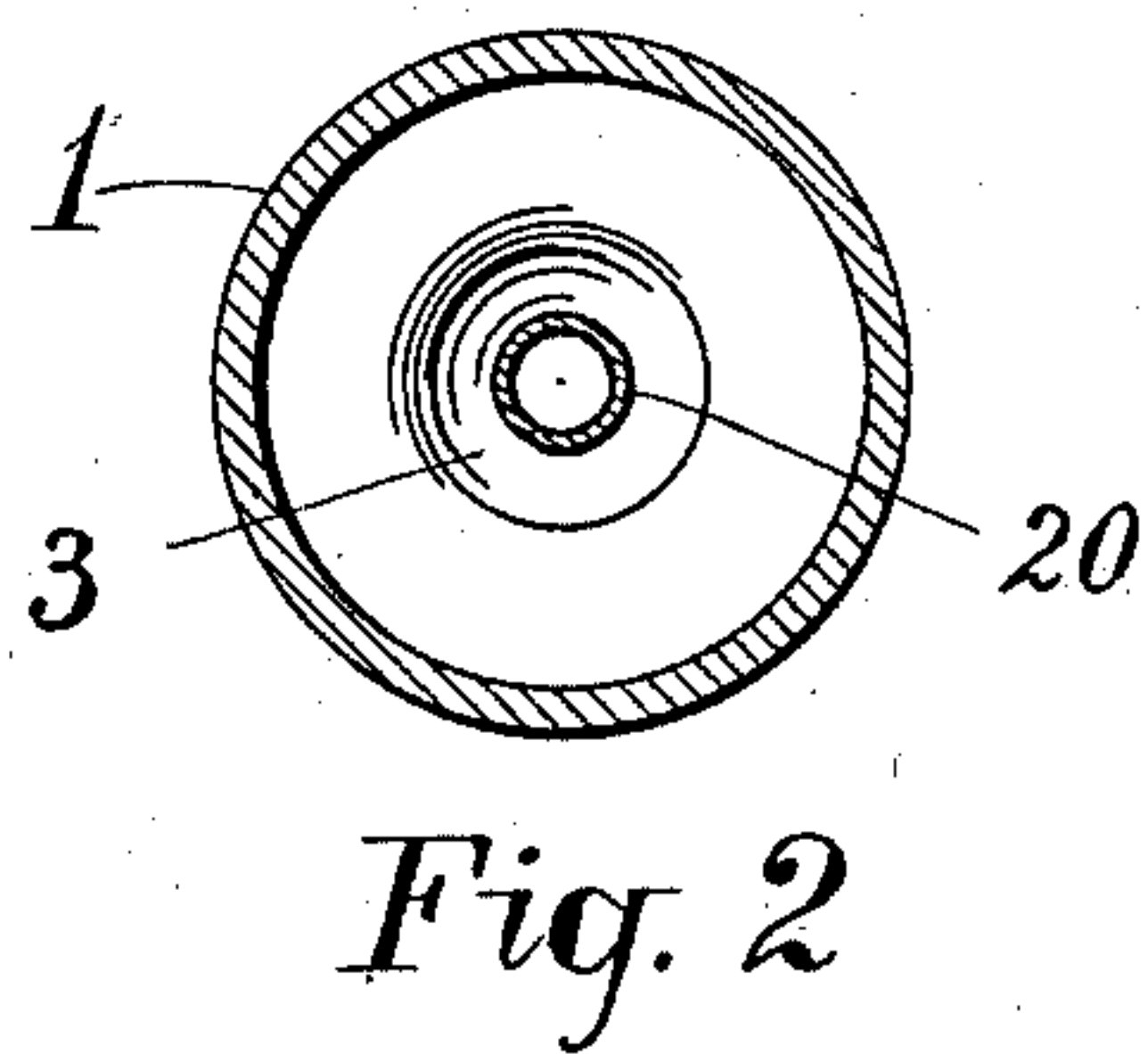
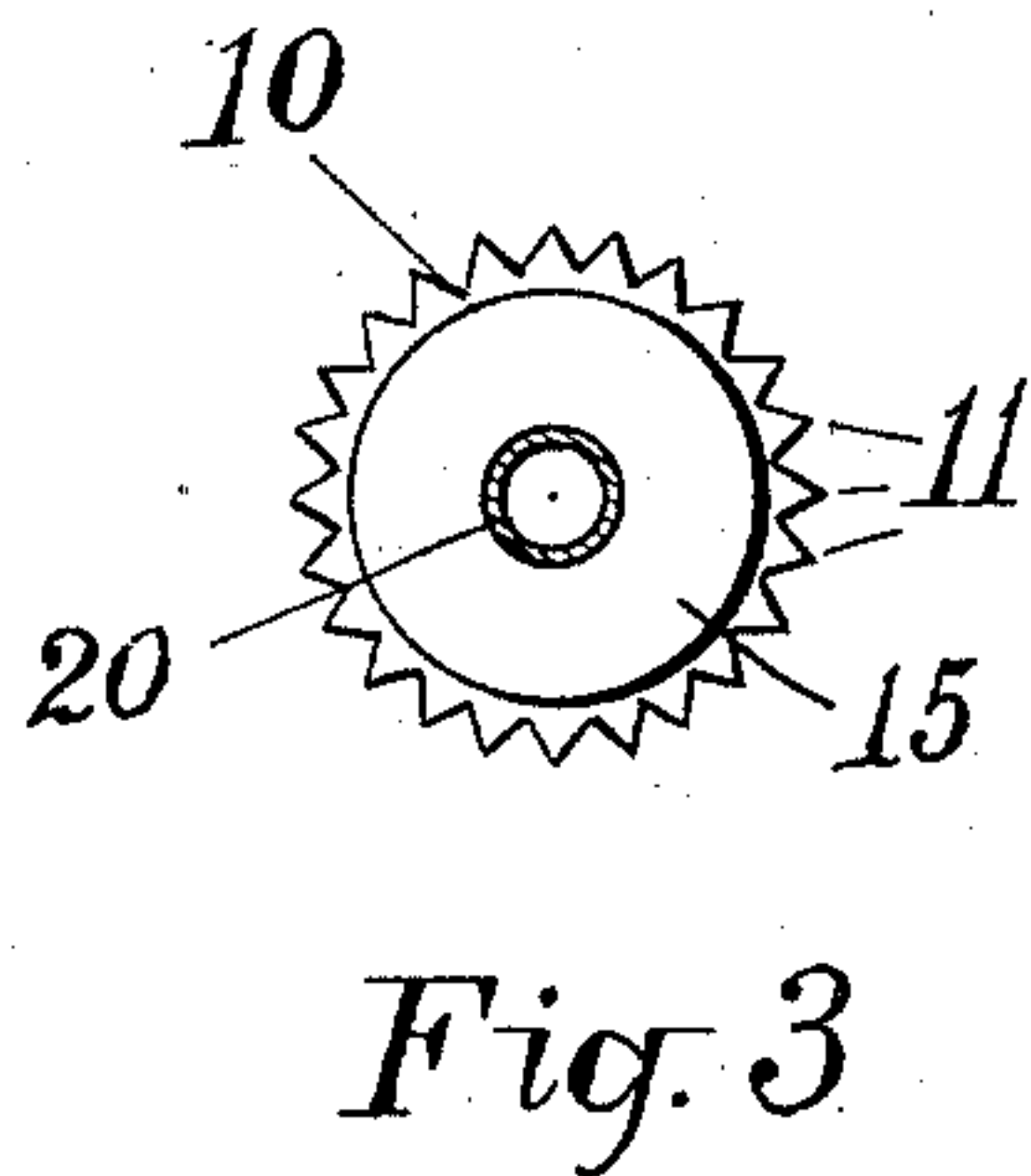
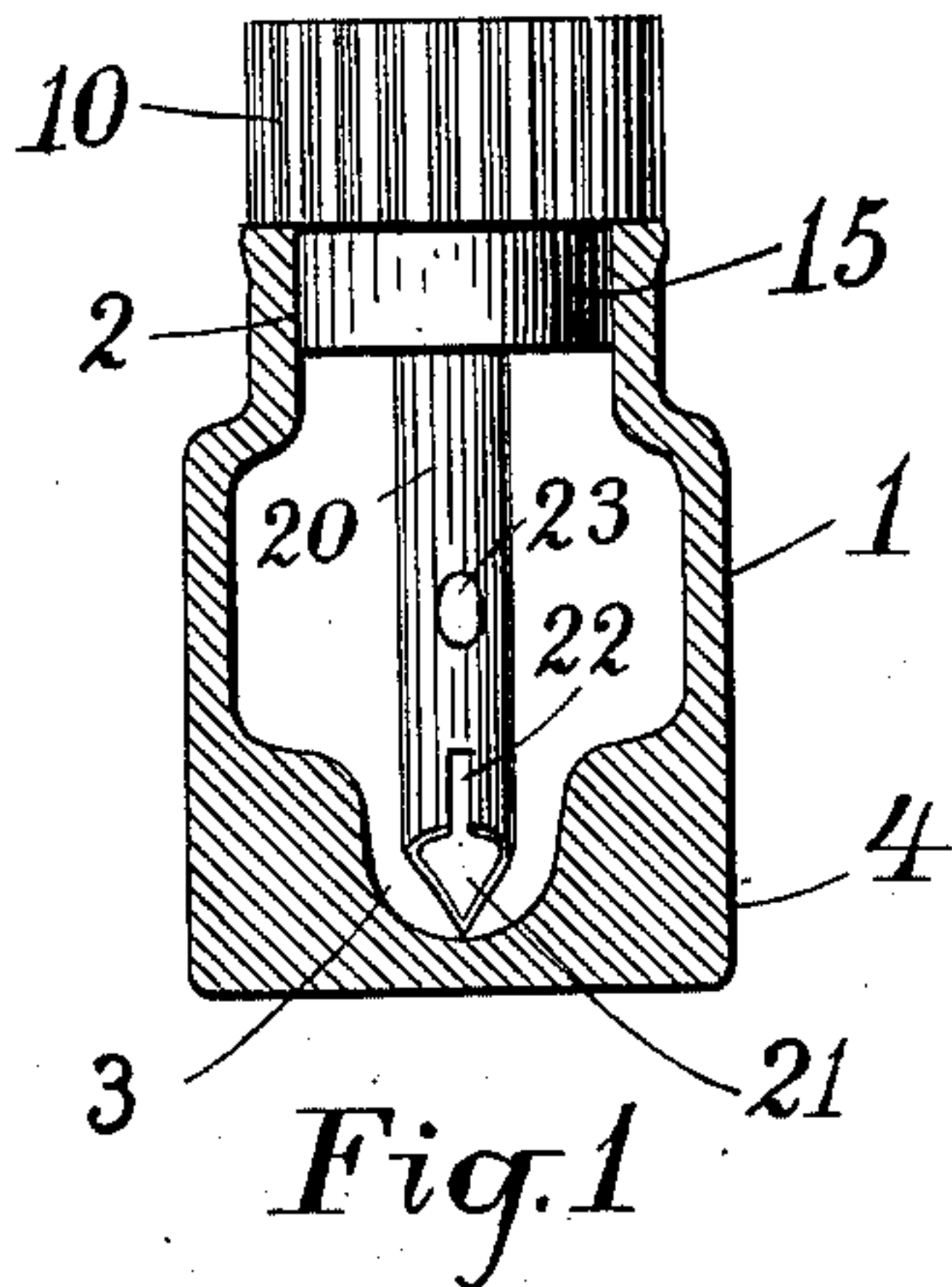
No. 748,040.

PATENTED DEC. 29, 1903.

J. B. BARNES.
INK FILLER.

APPLICATION FILED APR. 8, 1903.

NO MODEL.



Witnesses;

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UNITED STATES PATENT OFFICE.

JESSE B. BARNES, OF ST. PAUL, MINNESOTA.

INK-FILLER.

SPECIFICATION forming part of Letters Patent No. 748,040, dated December 29, 1903.

Application filed April 8, 1903. Serial No. 151,635. (No model.)

To all whom it may concern:

Be it known that I, JESSE B. BARNES, a citizen of the United States, and a resident of the city of St. Paul, in the county of Ramsey, State of Minnesota, have invented certain new and useful Improvements in Ink-Fillers, of which the following is a full, clear, and exact description.

The object of this invention is the construction of an improved means for supplying ink to draftsmen's drawing-pens; and it consists, first, in improvements whereby the quill used for this purpose may be caused to retain a larger quantity of ink and to deliver practically all to the drawing-pen, and, second, to improvements whereby the quill-holder may be made to fully close the ink-bottle and so prevent evaporation without danger of its sticking in the bottle-mouth. These improvements are effected by the following construction:

Referring to the drawings forming part of this specification, Figure 1 is a vertical central section of my invention complete. Fig. 2 is a horizontal section of the same. Fig. 3 is an under view of my quill and holder, and Fig. 4 is a perspective view of the lower part of the quill.

My ink-filler consists of three parts—the ink-container 1, the quill 20, and the cover or stopper 10. The ink-container is preferably formed of glass with a wide mouth 2, a central depression 3 in its bottom, and a solid bottom 4 to cause the container to stand upright.

The cover or stopper 10 may be formed from wood, composition, or similar material and has its periphery roughened by numerous serrations 11, as shown in Fig. 3. The diameter of this stopper or cover at the bases of its serrations is greater than the mouth 2 in order that when its flat under surface is rested upon the mouth of the container the latter may be closed against evaporation of its contents. Projecting axially from the under face of this stopper is the quill 20, by means of which the actual operation is performed of filling a draftsman's pen. As ordinarily constructed for this purpose the quills are cut away to a semicylinder and are objectionable on account of the insufficient

quantity of ink which they are able to retain and supply to the drawing-pens, especially to the larger sizes of pens. To improve the quills, I make them much smaller than is ordinarily used, having them about one-eighth of an inch in diameter, and thereby materially increasing their capillary action. Further, the quill is not split away, but remains practically a complete cylinder, with its lower end cut away at an acute angle to produce the filling-point 21. About half an inch above this bevel cut 21 is made the elliptical opening 23 (shown in Figs. 1 and 4,) and reaching half-way to such opening is the slot or notch 22. Thus formed, the quill is enabled to receive, retain, and deliver an unusually large supply of ink, the opening 23 permitting the air to escape from within the quill as the latter is thrust into the ink and the ink to rise to the level of such opening. If removed with ordinary care, the quill carries within it the larger part of such ink until the bevel-point 21 being introduced to the drawing-pen the opposing capillary action of the latter forces the ink to leave the quill and enter the pen. Said opening 23 of course permits the air to enter the quill as the ink flows therefrom. The function of the slit or notch 22 is to break the bubble or film of ink which is formed as the ink leaves the quill. Without such slit this film remains and holds back part of the ink from leaving the quill, while at the same time the slit does not materially lessen the quantity of ink taken up by the quill. As shown in Fig. 1, the point of the quill descends within the well or depression 3 to practically the bottom of the latter, and the upper edge of such well being rounded no care is required in inserting the quill therein, notwithstanding that the diameter of the quill is so nearly that of the well.

To the under side of the cap 10 is secured the stopper 15, the periphery of the cap being serrated. These serrations 11 serve to prevent the quill from being dropped or from being so uncertainly held as to cause the ink to be spattered upon the drawings instead of entering the pen.

The heavy bottom 4 causes the container 1 to be held upright with more certainty and also furnishes straight and uniform sides to

the container for enabling it to be inserted within a hole bored in a block and so kept with absolute certainty from overturning.

What I claim as my invention and for
5 which I desire Letters Patent is as follows,
to wit:

An ink-filler made substantially tubular
throughout its length but having its lower
end beveled or pointed, and formed with a
10 narrow slit with parallel walls reaching from
such beveled end a short distance up there-

from, and an unbroken walled opening in line
with said slit but at a distance from the up-
per end of the latter approximately equal to
the length thereof, substantially as described. 15

In testimony that I claim the foregoing in-
vention I have hereunto set my hand this 13th
day of March, 1903.

JESSE B. BARNES.

Witnesses:

JOHN M. LEWIS,

JOHN S. KENNEDY.