(No Model.)

H. ESSER.

INK SUPPLYING DEVICE.

No. 384,899. Patented June 19, 1888.

Fig: 1.

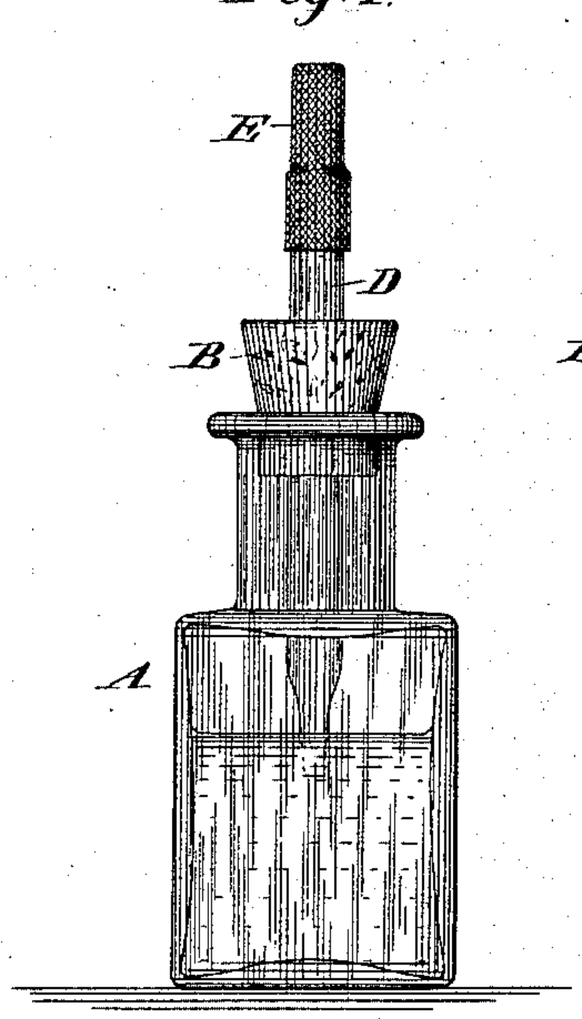


Fig: 3.

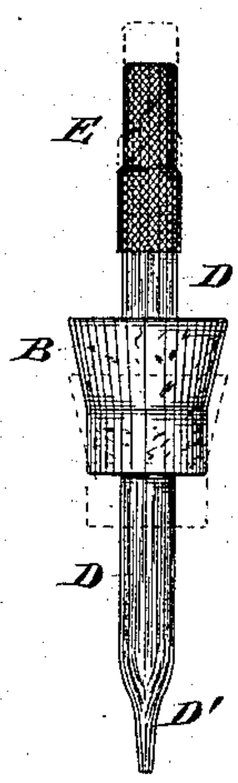


Fig: 2.

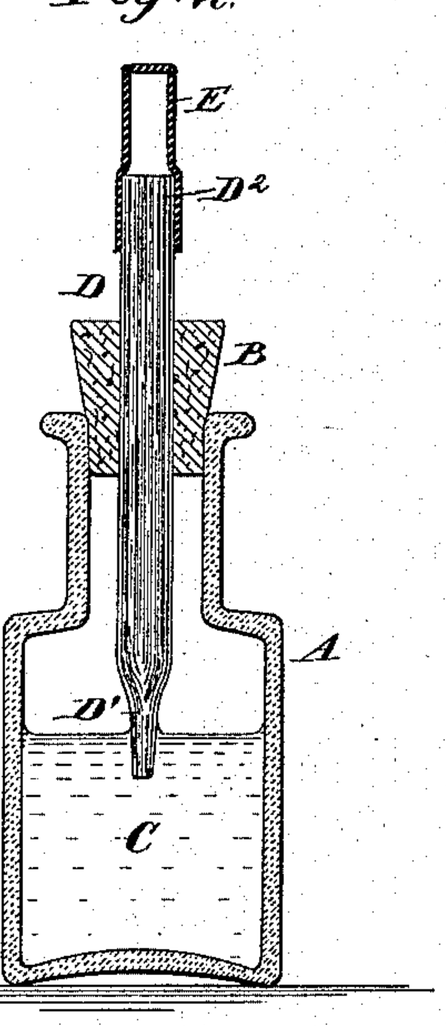


Fig: 4.

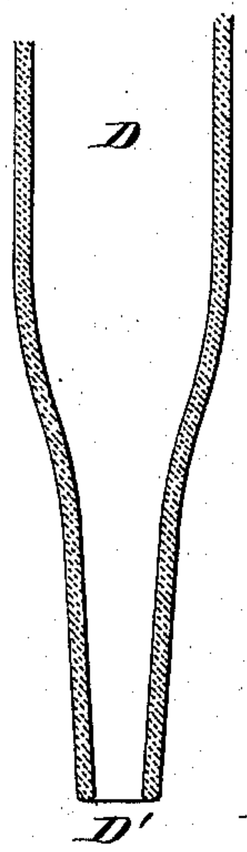


Fig: 5.

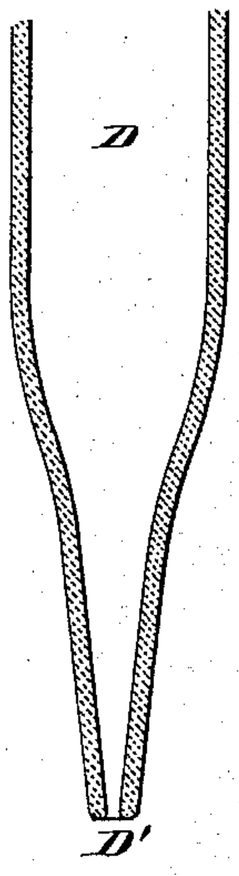
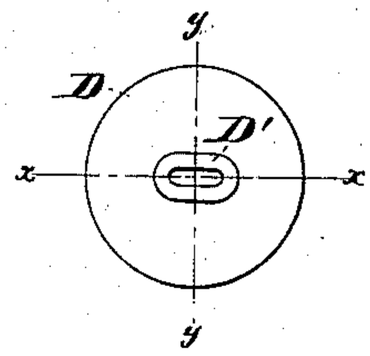


Fig: 6.



Witnesses:
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H. A. Johnstone.

Inventor:
Hermann Esser
by his attorney
Thomas Drew Stetson

UNITED STATES PATENT OFFICE.

HERMANN ESSER, OF HOBOKEN, NEW JERSEY.

INK-SUPPLYING DEVICE.

SPECIFICATION forming part of Letters Patent No. 384,899, dated June 19, 1888.

Application filed November 11, 1887. Serial No. 254,887. (No model.)

To all whom it may concern:

Be it known that I, HERMANN ESSER, of Hoboken, in the county of Hudson and State of New Jersey, have invented a certain new and Improved Ink-Supplying Device for Draftsmen, of which the following is a specification.

The device is adapted to fit in the mouth of an ordinary fluid-ink bottle, and to take up a proper quantity of the ink and introduce it between the blades of a draftsman's pen. It may apply with any of the ordinary forms of bottles for fluid india-ink.

I have discovered that a tube of glass may be contracted and flattened at one end, so as to apply from above between the blades of a draftsman's pen and serve both to introduce and remove ink. In practice both these ends may be attained to a certain extent. I employ such a tube of glass, open at both ends, with an adjustable cap of rubber fitted on and extending above its upper end. This tube is inserted axially through a cork or other stopper of suitable size and length to be conveniently introduced and removed. The glass tube may be adjusted up and down in the cork, and the rubber cap may be adjusted up and down on the upper end of the tube. The quality of ink taken at each introduction into the bottle may be varied by adjusting the rubber cap. By compressing the cap and again liberating it the contained air may be forced out and a partial vacuum formed which draws up any ink which is presented to it. When the tube is thus operated in the ink-bottle, it draws up ink from the bottle. When it is thus placed with its wedge-point between the blades of the pen and the rubber cap pressed, it charges the pen with fresh ink from the bottle.

The device allows the last drop of ink to be taken from the bottle. By forcing out the air from the rubber cap through the ink in the bottle the ink is stirred up at each operation, so that it is prevented from settling.

The accompanying drawings form a part of this specification, and represent what I consider the best means of carrying out the invention.

Figure 1 is an elevation showing the device in place in a bottle, and Fig. 2 is a corresponding vertical section thereof. Fig. 3 is an elevation showing the device removed from the bottle. The remaining figures are on a larger scale. Fig. 4 is an enlarged vertical section of the lower end of the tube, taken on line *x x* of Fig. 6. Fig. 5 is a similar section taken at right angles to Fig. 4 and on line *y y* of Fig. 6. Fig. 6 is a bottom end view of the tube.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

A is the bottle, which may be in all respects of an ordinary and long-approved character.

B is a cork matching the bottle-mouth.

C is the ink.

D is a tube of glass, certain portions being designated, when necessary, by additional marks, as D′. The lower end, D′, is tapered and flattened. The upper end, D^2, is smoothly rounded and receives a cap, E, of soft vulcanized india-rubber, adapted to hug tightly on the tube.

When the bottle is standing unused, the cork thus equipped serves as a stopper to exclude dust and prevent evaporation. When it is to be used, the cap E is first compressed by the operator and then allowed to expand, the cork B, with its attachments, then taken out of the bottle, and the rubber cap again compressed, while the tapering wedge-point D′ is between the blades of the drawing-pen.

If it is desired to supply more ink at each operation, the rubber cap E is moved upward upon the tube D, which can be readily effected by the expenditure of sufficient force. As the ink in the bottle gets low, the tube D is shifted successively downward by thrusting it forcibly through the stopper. As the cap is raised and a larger portion thereof stands above the upper end, D^2, of the rigid tube, a correspondingly larger quantity of air will be expelled when it is compressed and a greater quantity of ink will be drawn up in the tube ready to be injected into the pen when the cap is again compressed.

The device is cleanly and may give exactly any quantity of ink at each operation according as the cap is adjusted. I attach importance to the contracted and flattened form of the end D′, because it is adapted to reach down in the wedge-shaped space between the blades of the pen nearly to the point.

I claim as my invention—

1. The ink-supplying device herein described, the same comprising the tube D, and a cylindrical rubber cap, E, fitting upon its upper end and arranged, as shown, so that it may be slid thereon to vary its capacity, as and for the purpose specified.

2. The ink-supplying device herein described, the same comprising a tube, D, contracted and flattened at its lower end, a cylindrical rubber cap, E, fitting adjustably upon its upper end, and a cork, B, fitting adjustably upon its body between the ends, all combined and arranged for joint operation as and for the purpose specified.

In testimony whereof I have hereunto set my hand, at New York city, this 10th day of November, 1887, in the presence of two subscribing witnesses.

HERMANN ESSER.

Witnesses:
M. F. BOYLE,
H. A. JOHNSTONE.