

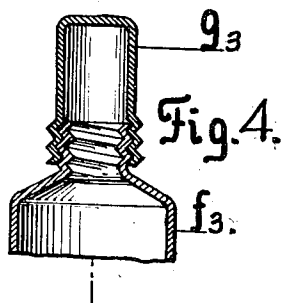
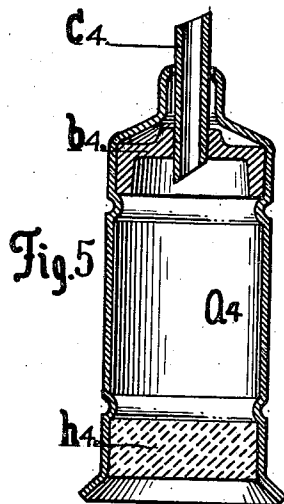
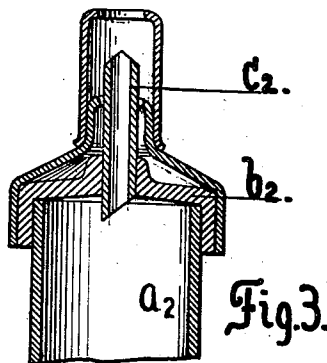
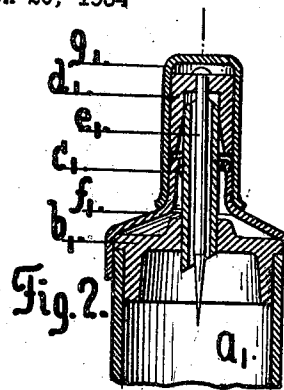
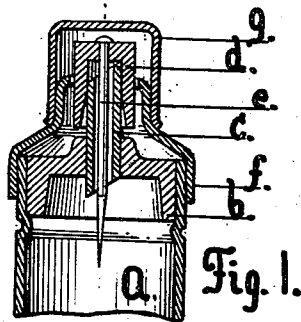
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BOTTLE WITH MEANS FOR FILLING PENS

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BOTTLE WITH MEANS FOR FILLING PENS

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2 Claims. (Cl. 120—57)

A bottle for filling drawing (ruling) pens is known, provided with an emptying tube, in which the liquid is forced out through the tube which is placed in the stopper by means of a flexible base. This form of filling has the disadvantage that it is necessary to exert a pressure on the flexible cover which forms the base of the bottle by means of a finger of the hand which holds the bottle with the downwardly directed tube. It may, therefore, quite easily happen that as a result of an untimely pressure, or owing to the tube being incorrectly placed on the drawing pen, the liquid does not run into the drawing pen but runs down the side thereof, which is often very unpleasant in the case of India ink or the like.

With the filling bottle according to the invention this disadvantage is obviated by the fact that the stopper of the vessel, which contains the tube, is the flexible component which serves to force out the liquid. In this case the pressure on the liquid which serves to empty the bottle is exerted by means of a pressure of the object to be filled, such, for example, as the drawing pen, on the tube, and thereby on the stopper, with the result that after completion of the filling, and removal of the object from the tube, the discharge of the liquid automatically and simultaneously ceases. Even a subsequent dripping or a premature outflow of the liquid from the vessel is, thereby prevented.

The attached drawing shows several constructional examples of the subject of the invention in Figures 1 to 5, each in longitudinal section through the bottle or its upper part.

Figure 1 is a vertical section of one form of the invention.

Figure 2 is a similar section of a modification.

Figure 3 is a similar view of a further modification with the cap removed.

Figure 4 shows the upper part of a bottle with a screw cap.

Figure 5 is a vertical section of a bottle further modified according to the invention and shown in section with the cap removed.

The vessel consists of a bottle type of container a or a^1 , a^2 or a^4 respectively, having a fixed or removable base h^4 , Figure 5. The vessel is closed by means of a flexible stopper b or b^1 , b^2 , b^4 re-

spectively, and through this stopper a thin emptying tube c , or c^1 or c^4 respectively reaches into the upper part of the vessel. The tube c is so narrow that, should the vessel turn upside down, no liquid can flow out of it, or at least only very slowly. The stopper b can be covered by a cap f or f^1 or f^3 respectively, through which, however, the tube c projects. The cap f may, however, as shown in Figure 5, be formed in one piece with the vessel a ; in this case the base of the vessel must be removable. The outer end of the tube c can be closed by means of a small rubber cap d or d^1 , which in turn can be covered by a cap g , g^1 or g^3 respectively. In order to prevent the tube c becoming stopped up, the small cap d may be provided with a needle e or e^1 which enters into the tube c when the small cap d is put on.

In order to use the bottle, the cap g and the small cap d are taken off, the bottle with the tube c turned upside down and the mouth of the tube held between the two limbs of the drawing pen, and a certain pressure is exerted by means of the drawing pen on the tube c and thereby on the flexible stopper b , whereby some of the liquid is discharged from the vessel into the drawing pen. As soon as the drawing pen is removed from the tube, the pressure ceases as, therefore, does also the discharge of liquid from the tube.

What I claim and desire to secure by Letters Patent of United States is:—

1. A bottle for filling drawing pens and the like, comprising an elastic diaphragm stopper for forcing out the liquid, an open tube extending through said stopper whereby pressure on the tube effects a discharging pressure on the liquid in the bottle, when the latter is turned down.

2. A bottle for filling drawing pens and the like according to claim 1, wherein the open tube which extends through the stopper terminates immediately within the same and is provided with an outer end having a form adapted to receive pressure exerted thereon from the exterior and efficiently transmit the pressure through the tube to the interior of the bottle in order to cause said exteriorly exerted pressure to effect the discharging pressure on the liquid in said bottle when the bottle is turned down.

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