

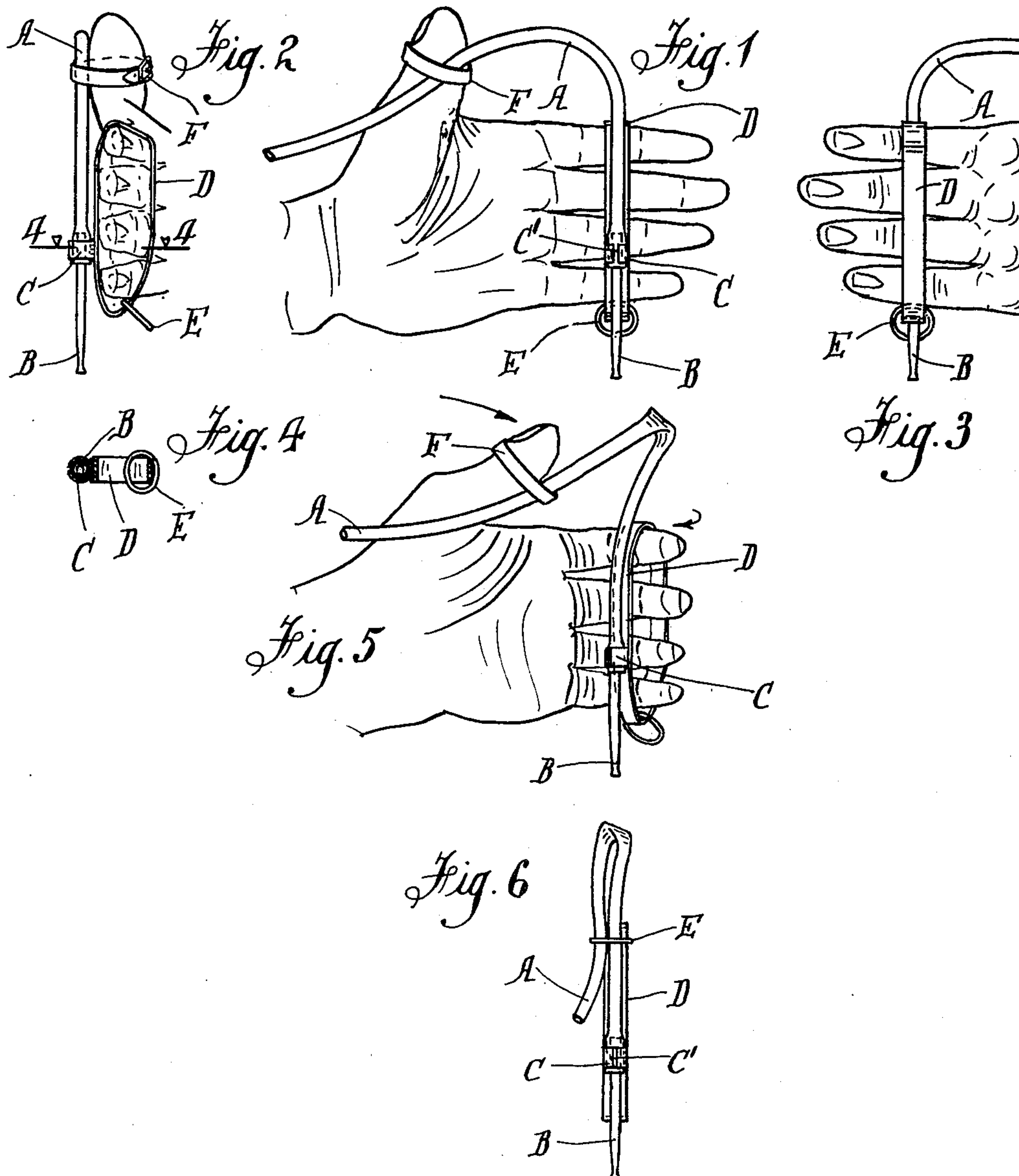
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FLOW CONTROL MEANS

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FLOW CONTROL MEANS

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3 Claims. (Cl. 251—5)

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This invention relates to improved means designed for use in the delivery or dispensing of liquids in controlled quantities into receiving vessels, by syphoning action from a holder containing a body of the same.

The invention is concerned with the use in respect of a flexible syphoning tube, of means whereby the syphoning flow delivery of the liquid may be readily controlled to stop and start at will. It is of special use in such circumstances wherein a number of vessels are to be charged with liquid from a main quantity thereof and provides for the flow being effectively stopped as each vessel is charged, and re-started as the charging of the next vessel is to be effected.

The said means are of a nature such as to combine with the delivery end of a flexible syphon tube, to provide a holder for the said end by means of which the discharge may be directed into different vessels and to afford facility for the tube passage being closed by the pinching of the tube with hand pressure, and opened up again by the release of the pinching action.

The invention will be further described, with the aid of the accompanying sheet of drawings in which—

Figure 1 is a front view of the apparatus in the working or flow position.

Figure 2 is a side view thereof.

Figure 3 is a back view.

Figure 4 is a cross-section on the line 4—4 of Figure 2, and

Figures 5 and 6 illustrate the apparatus in the stopped position hereunder described.

According hereto the invention comprises a length of tube A of rubber or the like resilient material, having combined with its delivery end a nozzle B, made of any suitable rigid material inserted in such end for a distance, and extending continuously with the tube's end. The bore of the nozzle may be of such a diameter, dependent upon the pressure flow of the liquid as desired. A rigid sliding band C is provided to slide up over the tube end where it encloses the nozzle B to make a holding grip thereon. This band C may be cut with a longitudinal slot C1, for adjustment or installation of nozzles of different bore diameter, if required. Formed with or rigidly attached to, such band C, is a handle forming loop D, of metal sheet, plastic or the like, designed to deceive the four fingers of the operator's hand so that it may be closed round the side of the loop, as shown in the drawings. The loop D is arranged to extend in line with the syphon tube's length. A small metal ring E is provided and enclosed loosely upon the loop and this is designed for use in the manner hereinafter explained. Over the flexible part of the tube A, above the nozzle fitting it is enclosed by a buckle and strap F for the attachment of the tube to the thumb of the user in the use of the device.

In the use of the invention, the fingers of the

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operator's hand are passed through the handle loop D in a manner to position the tube on the inside of the fingers and to direct the nozzle end of the tube out from the side of the hand and into the receiving vessel. The flexible part above the nozzle fitting is supported by the adjustable strap F fastened to the thumb. When, therefore, the thumb is turned out from the hand, the tube passage opens to its normal, but when the thumb is turned in against the hand and the fingers slightly closed, the tube becomes pinched between them and its passage closed. Thus, by the manipulation of the hand, the syphon tube may be opened and closed at will. Again where the operator desires to temporarily cut off and hold the liquid's flow, the small ring E on the handle loop may be slipped over a doubled up part of the tube, as illustrated in Figure 6.

If the syphon is operating to permit of the flow of liquid through it, such flow may be stopped, and allowed to commence again at will, as long as the syphon tube remains charged in the ordinary manner of the use thereof.

I claim:

1. Means for use in the delivery of liquids by syphoning action comprising the combination with the delivery end of a flexible syphon tube of a holder to which such end is attached, said holder being adapted to be attached to the fingers of a hand of an operator, and means adapted to be attached to the thumb of said hand of the operator and enclosing a portion of the tube so that by the opening and closing actions of the hand the tube passage may be respectively opened and closed in the portion of the tube between said holder and said means.

2. Means for use in the delivery of liquids by syphoning action comprising the combination with the delivery end of a flexible syphoning tube, of a nozzle inserted in such end and extending continuously therewith, a band enclosing the tube and nozzle, a handle loop adapted to receive the fingers of an operator's hand to which the said band is attached, and a strap adapted to encircle the thumb of the operator's hand and the said flexible tube, said strap being so related to the band that both are adapted to receive portions of the tube at the same time.

3. Means for use in the delivery of liquids by syphoning action according to claim 2, the provision of a ring loosely encircling the handle loop.

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REFERENCES CITED

The following references are of record in the file of this patent:

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Number	Name	Date
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