

(No Model.)

E. H. GOLLINGS.
DEPURATOR.

No. 517,274.

Patented Mar. 27, 1894.

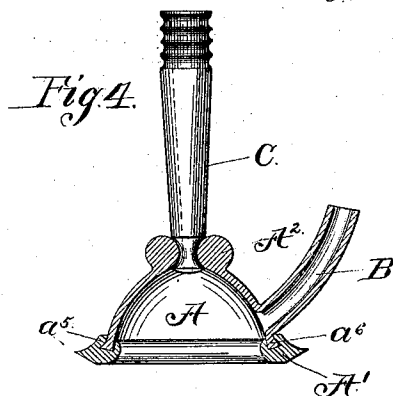
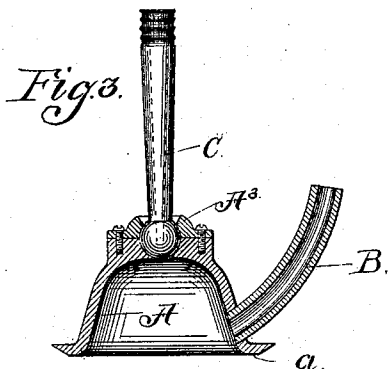
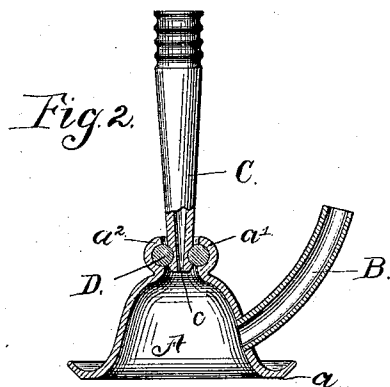
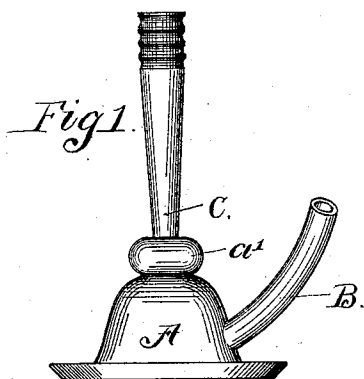


Fig. 5.

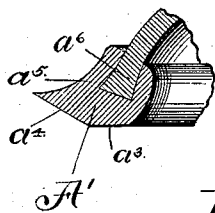


Fig. 6.

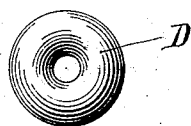


Fig. 7.



Witnesses:
W. Graham
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UNITED STATES PATENT OFFICE.

ELICK H. GOLLINGS, OF CHICAGO, ILLINOIS, ASSIGNOR, BY DIRECT AND
MESNE ASSIGNMENTS, TO GERVAISE GRAHAM, OF SAME PLACE.

DEPURATOR.

SPECIFICATION forming part of Letters Patent No. 517,274, dated March 27, 1894.

Application filed April 4, 1893. Serial No. 468,981. (No model.)

To all whom it may concern:

Be it known that I, ELICK H. GOLLINGS, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Depurators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of devices for applying medicaments in fluid form to the surface of the skin or to a wound, known as depurators, and more particularly to that sort of depurators that comprises a cup having an inlet through which the fluid is directed upon the surface to be treated and an outlet through which the fluid may pass with the effect of producing a partial vacuum within the cup, the open mouth of which is closed by contact with the skin or person, whereby any free offensive matter of the skin or wound is drawn off by the same operation which applies the medicament.

The invention has for one of its principal objects to provide a construction in which the cup or the portion thereof which bears against the person, shall be flexibly connected with the inlet tube which serves as a handle for holding the cup against the person and for moving it about from place to place upon the surface against which it is held.

Other objects of the invention will become apparent from the following description of the accompanying drawings and from the appended claims.

In the said drawings which illustrate certain practicable forms in which my invention may be embodied, Figure 1 is a side elevation of one form of my device. Fig. 2 is a central vertical section of that form of the device which is shown in Fig. 1. Fig. 3 is a central vertical section of the cup and side elevation of the inlet tube flexibly joined with each other in a manner somewhat different from that in which they are joined in Figs. 1 and 2. Fig. 4 is a central vertical section of the cup composed in part of vulcanized rubber and in part of metal, and a side elevation of the inlet tube. Fig. 5 is a detail, enlarged, showing a form of connection between the

rubber and metal portions of the cup shown in section in Fig. 4. Fig. 6 is a detail showing the rubber ring employed in flexibly joining the inlet tube with the cup in the construction shown in Figs. 1 and 2, and Fig. 7 is a side elevation of the inlet tube of Figs. 1, 2 and 4.

First describing the preferred construction shown in Figs. 1 and 2, A represents a cup having a margin α which is intended to fit against the surface of a person to be operated upon, and adapted to be moved along said surface during the operation by having backwardly inclined surfaces on both sides of the annular bearing surface thereof. B is an outlet tube leading from the side of the cup A and preferably of metal, being retracted to clear the person, as indicated, this permanently attached tube B being short, as shown, and adapted to have applied thereto a long rubber tube in extension thereof. C is the inlet tube which is also of metal or other sufficiently rigid material to enable it to serve as a handle for the entire instrument, said inlet tube C being adapted for the attachment of a rubber tube leading from a source of liquid supply which will usually be elevated to give the desired force or head. The outlet opening c of the tube C is relatively small so as to direct a fine jet of such liquid against the surface to which the instrument is applied and which is embraced within the annular edge α of the cup. D is a flexible rubber ring embraced in its outer portion in an annular socket α^2 in the upper portion or neck α' of the cup A and surrounding the lower end of the inlet tube C to better hold the tube C in place with reference to the cup. Said tube is provided with an annular groove around its lower end, as shown at c' in Fig. 7. Room is provided between the neck of the cup A and the tube C to allow the tube to be bent sidewise in any direction at its connection with the cup through the flexible or yielding rubber ring D.

In the operation of the device the instrument will be held in the hand by means of the rigid tube C and pressed against the face or other portion of the surface of the person to be treated and fluid will be allowed to flow into the cup through the said tube C, finding

its outlet through the tube B. The rubber extension of the latter tube will be compressed at some distance from the instrument between the thumb and finger to allow it to fill or partially fill with liquid, after which it will be released, the discharge end of the tube being disposed at a lower level than the cup, and thereby the falling liquid column will operate as in a siphon to induce a partial vacuum in the cup tending to draw off any free offensive matter from the skin or wound. By flexure of the tube C while the cup A is held in one place on the surface the jet sent through said tube may be directed against different portions of the surface covered.

In Fig. 3, which shows a modification of the construction of Figs. 1 and 2, the tube C is provided with a ball upon its extremity which is embraced in a socket formed in a familiar manner in part within the upper portion of the cup and in part by a cap A³.

In Fig. 4 the cup A is composed of a metal ring A' and a flexible though somewhat rigid rubber body A², the neck of the latter being in the form of a ring adapted to fit the circumferential groove c' in the end of the inlet tube C, as shown both in Figs. 4 and 7. The outlet tube B may in this case be of metal or it may be of rubber and integral with the rubber portion of the cup, the latter construction being indicated in this figure. The attachment of the rubber with the metal portion of the cup may be made in any suitable manner, the construction indicated being best shown in the enlarged Fig. 5 in which the upper edge of the annular metal portion A' is provided with an annular groove a⁵ wider at its lower portions than at its opening and the margin of the rubber portion A² of the cup is correspondingly widened at its extreme margin so that after being compressed and forced into the groove a⁵ it will expand within the

larger part of said groove and hold the parts together. Said enlarged Fig. 5 also shows a preferred construction of the marginal face of the cup, the bearing surface a³ thereof being flat and the outer inclined surface a⁴ straight or conical. This is found in practice to give a somewhat more certain and continuous contact of the cup with the surface to which it is applied when the cup is being moved about upon said surface.

Other modifications of my invention may be made without departure therefrom, what I claim being—

1. A depurator comprising an open mouthed cup provided with inlet and outlet tubes adapted to convey a liquid medicament to and from the part against which the cup is placed, the inlet tube being made of a rigid section flexibly connected with a cup, whereby the entering stream may be directed against any portion of said part exposed at the mouth of the cup.

2. A depurator comprising a cup provided with inlet and outlet tubes, said inlet tube being made of a rigid section, and a yielding part interposed between said rigid section and cup whereby the inlet tube and cup are flexibly connected.

3. A depurator comprising a cup provided with an outlet tube and an inlet orifice having an interior annular recess, an elastic ring fitting said recess, and a rigid inlet tube provided with an exterior annular groove engaging the interior of the elastic ring.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

ELICK H. GOLLINGS.

Witnesses:

M. E. DAYTON,
TAYLOR E. BROWN.