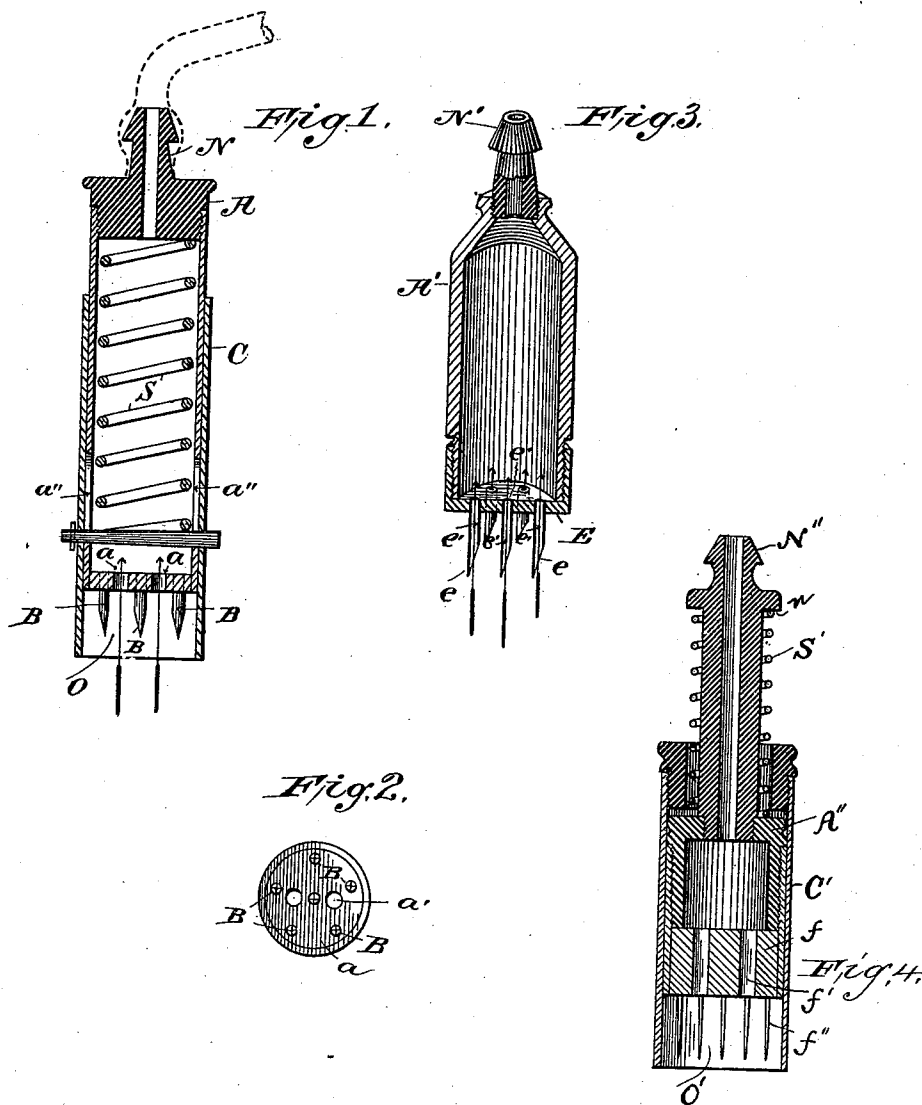


(No Model.)

C. B. DOLGE.
DRAINAGE TUBE.

No. 510,413.

Patented Dec. 12, 1893.



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UNITED STATES PATENT OFFICE.

CARL B. DOLGE, OF WESTPORT, CONNECTICUT.

DRAINAGE-TUBE.

SPECIFICATION forming part of Letters Patent No. 510,413, dated December 12, 1893.

Application filed February 6, 1893. Serial No. 461,139. (No model.)

To all whom it may concern:

Be it known that I, CARL B. DOLGE, of Westport, in the county of Fairfield and State of Connecticut, have invented certain new and
5 useful Improvements in Drainage-Tubes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

10 My invention relates to drainage tubes whereby fluids present in the flesh or body of a corpse may be rapidly removed therefrom.

Heretofore, when the corpse of a dropsical subject had been placed in the hands of an
15 embalmer or undertaker to prepare it for burial, considerable difficulty was experienced in removing the entrained water which is present there as a result of the disease. It has been customary to attempt its removal by
20 puncturing or cutting the flesh and permitting the water to exude from the apertures thus made whence it has been gathered up with cloths and sponges; this was an unpleasant and laborious operation and did not secure
25 the best results; the object of my invention is to accomplish this purpose neatly and rapidly and without disfiguring the body and this I do by means of my improved drainage tubes about to be described.

30 In the drawings, in which the same letters refer to the same parts in all of the views, Figure 1 is a central longitudinal section of one form of my device. Fig. 2 is a bottom plan view of the same; and Figs. 3 and 4 are
35 central sectional views of modified forms of the same.

In the drawings, A is a tube made of any suitable material, but preferably of metal which is not readily attacked by organic fluids. It
40 is internally threaded at its upper extremity to admit of the introduction of a nipple N upon which is secured the tube through which the suction is exerted from an air pump, not shown; at its other extremity, it terminates
45 in a face plate *a* which is provided with one or more apertures leading into its interior and in which are inserted, by any suitable means, the shafts of several needles B. Closely fitting the external surface of the tube A, is
50 another tube C of about the same length. This is provided with an adjustable pin P which passes through two slots *a''* in the

tube A and against which impinges a coiled spring S the other end of which rests against the inner lower surface of the nipple N. 55

The method of operating the device is as follows: The tube C is first pressed firmly against the flesh. The tube A is then pressed downward in the same direction. This compresses the spring S and drives the needles B
60 into the flesh, the slots *a''* permitting the forward motion of the tube A without disturbing the pin P. The tube is then allowed to be forced back by the action of the spring S and the pump being put to work the water to be
65 removed is drawn from the body through the punctures made by the needles B into the chamber O formed by the walls of the tube C and the plate *a*, and thence is drawn through the tube A and its connections into the vessel
70 provided to receive it. By this means it does not escape from the tube A except in the direction desired.

In Fig. 3, I have illustrated a modified form of my device. In the drawings, A' is a tube
75 provided at one extremity with a nipple N' and at the other with a terminal plate E in which are inserted needles *e*, which are hollow and form tubes *e'* which communicate with the interior of the tube A'. The plate E is
80 adjustably secured to the tube A' for ease in cleaning. The method of operating this form of my device is quite similar to that just described. The needles are forced into the flesh and allowed to remain there and the water is
85 then drawn through the tube A' by the suction of the pump as before.

In Fig. 4, I have illustrated a third form of my device in which A'' is a central tube provided with a face plate *f* having apertures *f'*
90 and puncturing needles *f''*. It reciprocates within the tube C' provided with a cap *c* secured to the same and at its upper extremity is provided with an elongated nipple N'' surrounded by a coiled spring S' which impinges
95 against the flange *n* of the nipple N'' and the cap *c*. The operation of the device is the same as that of the first form described but the spring S' being outside of the tube is not brought into contact with the liquids passing
100 through the tube, and, raising or lowering the cap *c* will increase or diminish the size of the chamber O', as may be desired.

The advantages of my invention are ob-

vious, numerous and great. The water is quickly removed by the suction of the pump, it does not escape from the vicinity of the apparatus except in the direction desired, there is no uncleanness and the apparatus, after, use may be readily taken apart and treated with antiseptic agents.

Having described my invention, what I claim as new is—

10 1. A drainage tube provided at one extremity with a nipple and at the other with puncturing needles and suitable aperture, in combination with an exterior tube, the walls of which, together with the face plate of the interior tube, form a chamber O in which may
15 be formed a partial vacuum.

2. A drainage tube consisting of an external tube and an internal tube reciprocating

therein and provided at one extremity with a nipple and at the other extremity with a face plate containing apertures and provided with puncturing needles, in combination with means for resisting the forward action of said
20 internal tube.

3. A drainage tube provided at one extremity with a nipple and at the other extremity with a removable face plate having apertures and puncturing needles, as and for the purposes set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CARL B. DOLGE.

Witnesses:

H. E. SHERWOOD,
W. G. STAPLES.