C. B. DOLGE & R. J. HOLZHAUSEN.

BLOOD DRAINING TUBE.

APPLICATION FILED DEC. 17, 1908.

923,416.

Patented June 1, 1909.

Fig. 1

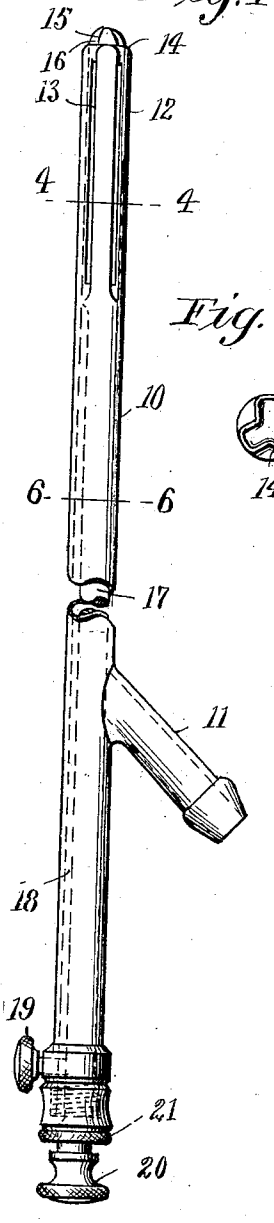


Fig. 2.

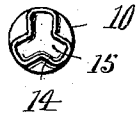


Fig. 3.

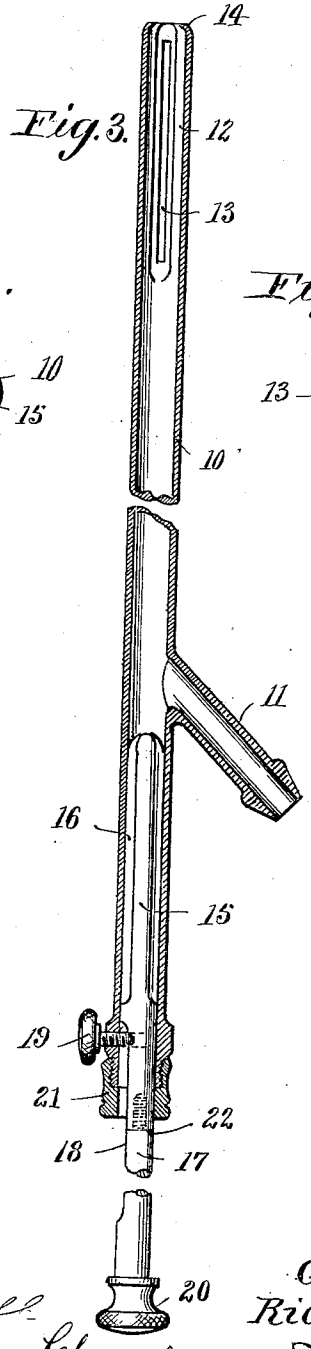


Fig. 4.

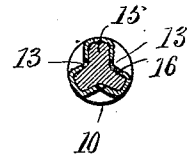


Fig. 5.

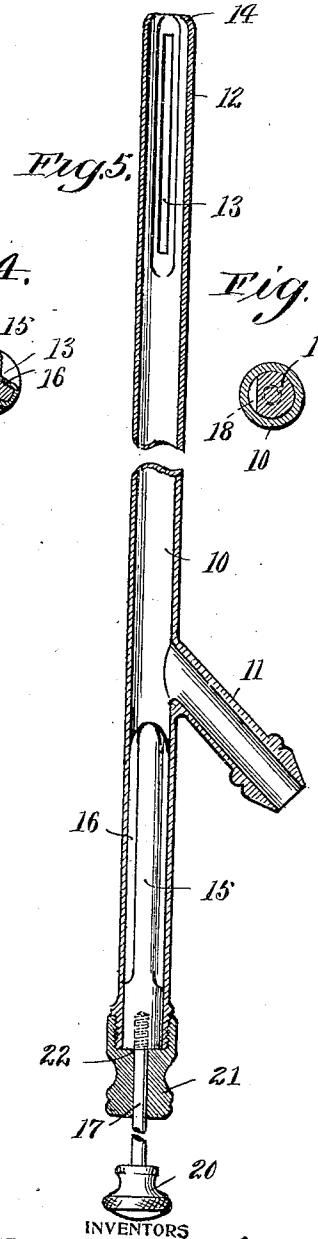


Fig. 6.

WITNESSES

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CARL B. DOLGE AND RICHARD J. HOLZHAUSEN, OF WESTPORT, CONNECTICUT, ASSIGNORS TO THE EMBALMERS' SUPPLY COMPANY, OF WESTPORT, CONNECTICUT.

BLOOD-DRAINING TUBE.

No. 923,416. Specification of Letters Patent. Patented June 1, 1909.

Application filed December 17, 1908. Serial No. 467,950.

To all whom it may concern:

Be it known that we, CARL B. DOLGE and RICHARD J. HOLZHAUSEN, citizens of the United States, and residents of Westport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Blood-Draining Tubes, of which the following is a specification.

This invention relates to new and useful improvements in blood draining tubes such as are used by undertakers and embalmers for draining blood from the veins of bodies after life is extinct.

It is the object of the invention to improve upon draining tubes of the above class by making them more efficient in use than those now upon the market, likewise more convenient to manipulate and less liable to clog with blood while in operation.

With the above and other minor objects in view our invention resides and consists in the novel construction and combination of parts shown upon the accompanying sheet of drawing forming a part of this specification, upon which similar characters of reference denote like or corresponding parts throughout the several figures and of which,

Figure 1, shows a broken, side elevation of our improved blood draining tube. Fig. 2, is an enlarged end view of the upper end of the tube as shown in Fig. 1. Fig. 3, is a broken, longitudinal sectional view of the tube shown in Fig. 1, with the plunger in an operative position. Fig. 4, is an enlarged cross section taken on line 4—4 of Fig. 1. Fig. 5, is a longitudinal sectional view somewhat like Fig. 3, though illustrating a slightly modified form of construction, and Fig. 6, is an enlarged cross section of the tube as taken on line 6—6 of Fig. 1.

Referring in detail to the characters of reference marked upon the drawings 10 represents the tube proper and 11 an outlet branch to which the usual rubber tube (not shown) is connected. The main tube is of a general elongated cylindrical form excepting at its inner end where it is provided with a series of longitudinal corrugations 12 formed by rolling or pressing in the side portions of the stock of the tube so as to form elongated grooves or pockets in the surface of the tube, and which are open at their forward ends. In the bottom of each of these elongated pockets is formed a slot 13 through which the blood enters the tube. The forward end of the tube is turned in slightly as shown at 14 to form a rounded and smooth introductory end therefor. Within the tube is provided a plunger 15 which like the outer surface of the forward end of the tube is provided with a series of longitudinal grooves 16 to receive the inwardly compressed portion of the tube proper so that when the plunger is shoved forward as indicated in Fig. 1, the same will snugly fit into the end of the tube in a way to close both the side and the end openings therein. The plunger rod 17 as shown in Figs. 3 and 6 is cut away upon one side as at 18 to form a key way for the stop screw 19 as shown while the end of the rod is provided with an operating knob or handle 20. The lower end of the tube as shown, is inclosed by a cap 21 which is shouldered to fit against the end of the tube, and is provided with a central opening of a sufficient size to accommodate the plunger rod. The plunger and its rod are made separable by reason of the plunger being provided with a threaded socket to receive the threaded end 22 of the rod. This construction permits of the detachment of the rod from the tube when the plunger is drawn back to its operative or draining position and at which time its long extended shank or rod would be in the way and objectionable if not removed as provided for.

The operation of our tube is as follows; After the branch of the tube is connected up with the usual flexible pipe, the forward end of the draining tube would be inserted through a suitable cut in the vein and then extended longitudinally therein until suitably adjusted, after which the plunger would be drawn outward from the position shown in Fig. 1, to that shown in Fig. 3, which as will be observed is past the outlet branch and up against the screw stop, thus forming an outlet for the blood from the vein which is passed off through the rubber pipe to a suitable reservoir. After the parts have been adjusted for draining as above specified the rod may be removed by unscrewing from the plunger 15 as at 22 so as to get it out of the way, until such time as it may again be needed. The grooves in the sides of the introductory end of the tube obviously serve to form an unobstructed inlet for the

blood since it does not permit of the vein adhering close enough to the surface of the tube to close the opening 13 therethrough which obviously is the case where the openings are formed in a plain cylindrical tube.

The device can readily be taken apart for cleaning by the removal of the screw 19 and the cap 21 as will be obviously apparent.

Having thus described our invention what we claim and desire to secure by Letters Patent is:—

1. A blood draining tube comprising an elongated tube having longitudinal grooves formed in the surface of its end portion and having openings from the said grooves into the tube, an operating plunger within the tube adapted to close the openings thereof.

2. A blood draining tube comprising an elongated tube having longitudinal grooves formed in the surface of the end portion and having openings into the said tube, a grooved plunger to fit the inner surface of the grooved end portion of the tube and adapted to be reciprocated longitudinally therein.

3. A blood draining tube comprising an elongated tube having longitudinal grooves formed in the surface of the inner end portions with openings from said grooves into the tube, a plunger within the tube adapted to close the openings thereof, an operating rod for reciprocating the plunger within the tube and having a key way formed in one side thereof, and a screw within the tube to engage the key way to form a stop for the plunger.

Signed at Westport, in the county of Fairfield, and State of Connecticut, this 7th day of December, A. D., 1908.

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Witnesses:
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