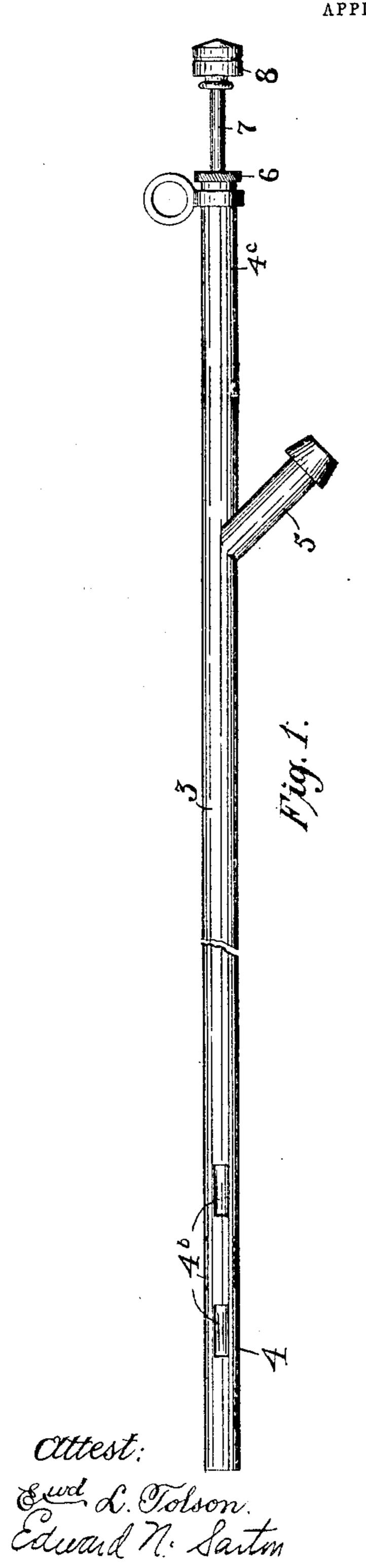
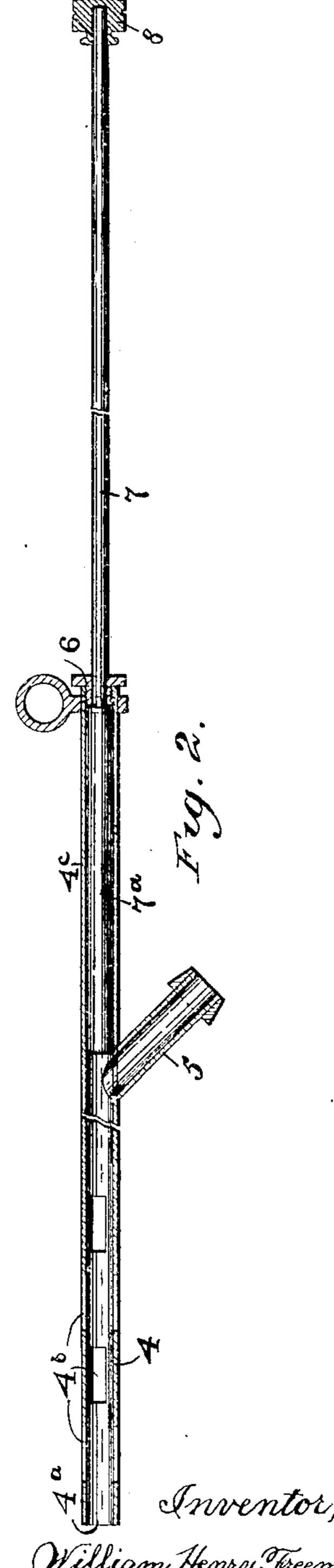
## W. H. FREEMAN. VEIN TUBE. APPLICATION FILED JAN. 30, 1907.





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Atty's.

## UNITED STATES PATENT OFFICE.

WILLIAM HENRY FREEMAN, OF FREEHOLD, NEW JERSEY.

## VEIN-TUBE.

No. 878,199.

Specification of Letters Patent.

Patented Feb. 4, 1908.

Application filed January 30, 1907. Serial No. 354,882.

To all whom it may concern:

Be it known that I, William Henry Freeman, citizen of the United States, residing at Freehold, New Jersey, have invented certain new and useful Improvements in Vein-Tubes, of which the following is a specification.

My invention relates to improvements in vein tubes such as are used by undertakers and embalmers for drawing the blood from

The object of the invention is to provide a simple and efficient tube which may be cleared or freed from clogging without the necessity of removal from the vein, and the invention comprises the novel features of construction hereinafter described and particularly resinted out in the appended claim.

ticularly pointed out in the appended claim. It is illustrated in the accompanying draw-

20 ing in which

Figure 1 is an elevation of a tube embodying my improvements and Fig. 2 is a sectional detail showing the sucker rod or plunger drawn out beyond the outlet or 25 delivery branch.

In this drawing the numeral 3 designates the body of the tube and 4 the end which is to be inserted in the vein, depending in size on whether it is to be used on the auxiliary vein at the armpit or the femoral vein. The end 4<sup>a</sup> is open at its extremity and is also provided with a plurality of side inlet passages 4<sup>b</sup> to permit the ready entrance of the blood. At its opposite end the tube is provided with a diagonal branch 5 which constitutes the blood outlet, and a portion 4<sup>c</sup> extending beyond the branch which is pro-

vided with a removable cap 6. Through an opening in this cap passes a rod 7 which carries on the inside of the tube a plunger or 40 sucker 7<sup>a</sup>, the rod having a suitable manipulating rod or handle as shown at 8.

In use the tube is inserted in the vein while the plunger occupies the position shown in Fig. 1. The plunger rod is then 45 drawn out until the plunger rests in the portion 4° of the tube beyond the outlet branch, leaving the latter unobstructed for the flow of blood. During its outward movement the piston draws in the blood, thus starting 50 the flow thereof. Should the tube become clogged the plunger may be pushed in and drawn out again to clear the tube of the obstruction without the necessity of removing the tube from the vein.

Having thus described my invention what

I claim is:—

A vein tube comprising a straight cylindrical body portion open at one end and having lateral openings in its wall adjacent said 60 open end, a plunger rod working through the opposite end and carrying a solid cylindrical plunger within the body portion, and an outlet branch leading from the body of the tube at a suitable distance from the end to permit 65 the plunger to be drawn out beyond the outlet branch, substantially as described.

In testimony whereof, I affix my signature

in presence of two witnesses.

## WILLIAM HENRY FREEMAN.

Witnesses:

W. Ryall Burtis, Wm. A. Hankinson, Jr.