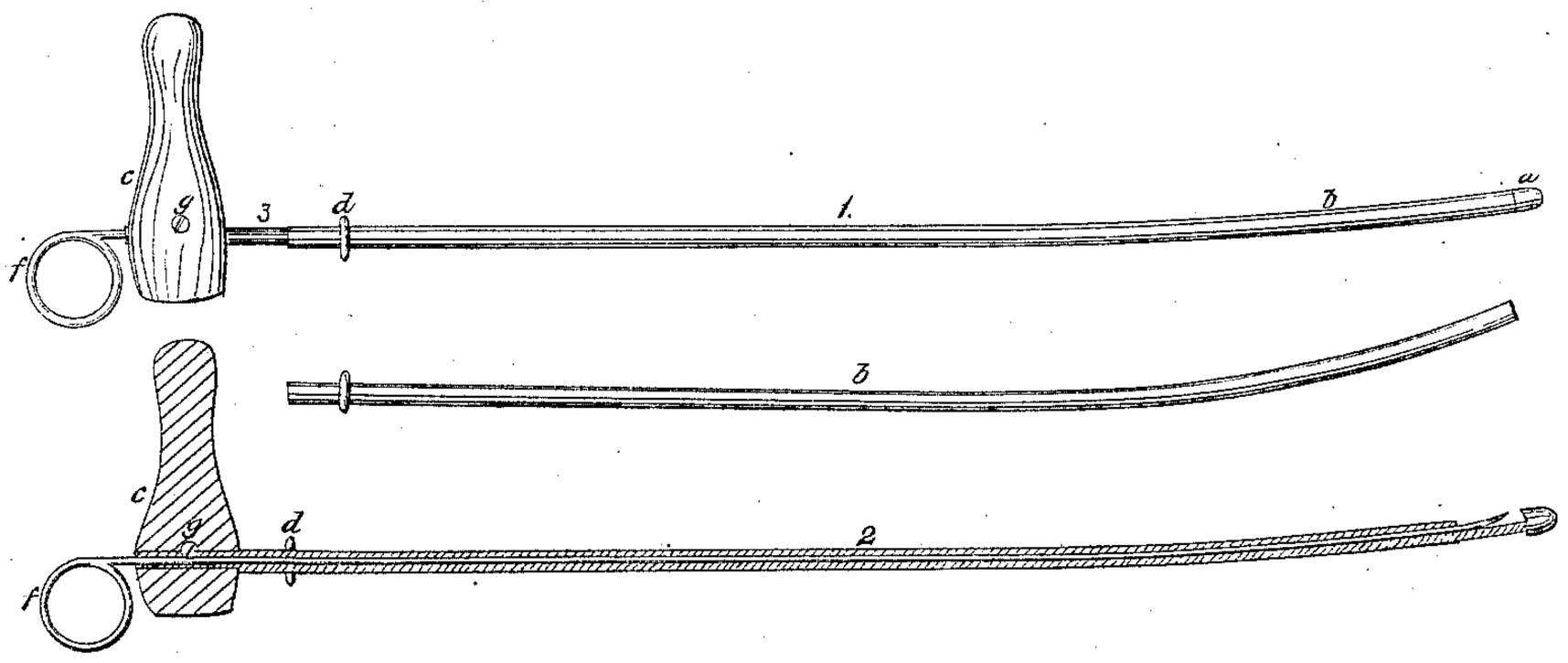
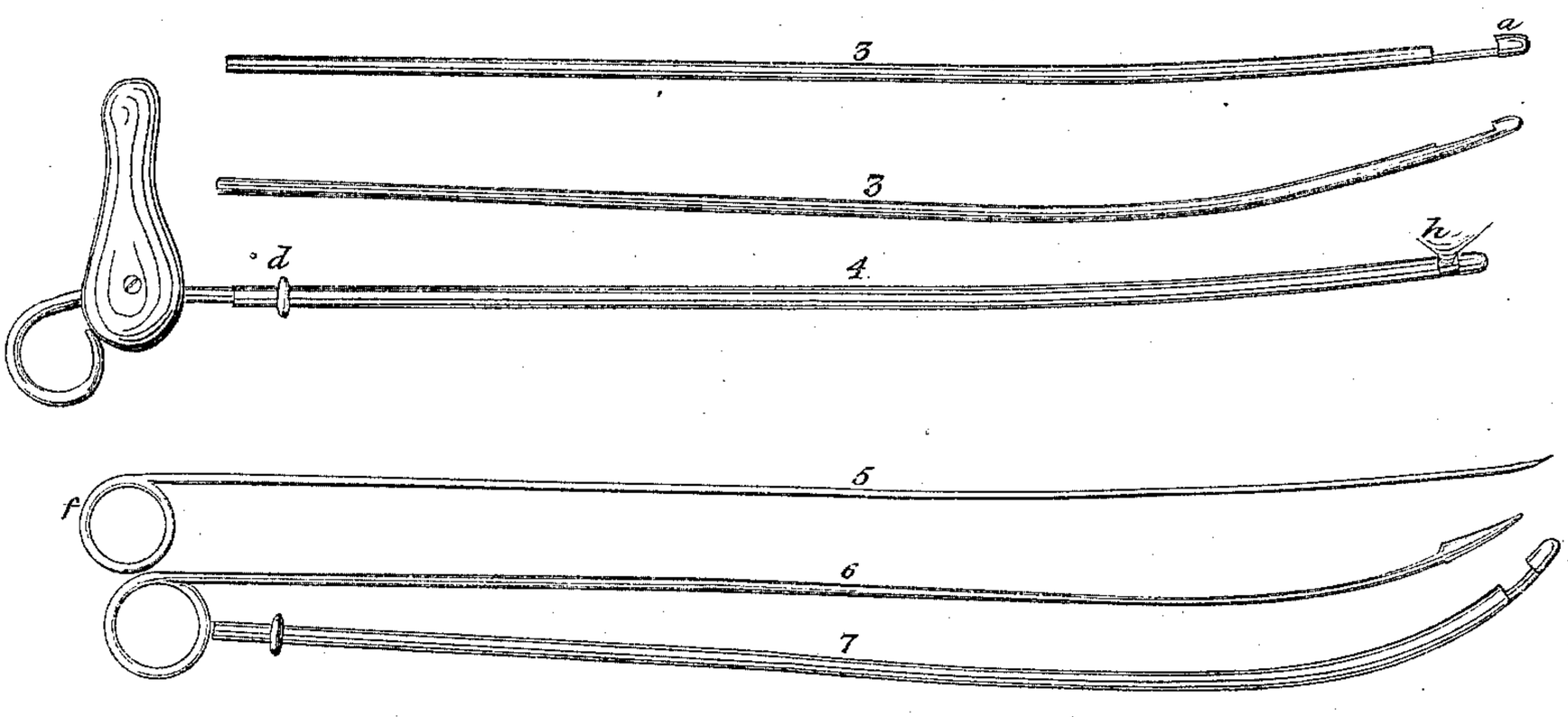
G. W. Woolley,

Tubular Forceps,

No. 37,023, Patented Nov. 25, 1862





Witnesses.

J. W. Hamhurst

J. J. Younglove

Inventor.

G. W. Woolley

UNITED STATES PATENT OFFICE.

G. W. WOOLLEY, OF NEW YORK, N. Y.

IMPROVEMENT IN TUBULAR FORCEPS.

Specification forming part of Letters Patent No. **37,023**, dated November 25, 1862.

To all whom it may concern:

Be it known that I, G. W. WOOLLEY, of New York city, of the State of New York, have invented a new and useful instrument for extracting bones, pins, and other foreign substances from the esophagus, larynx, or trachea; for removing or curing strictures in the urethra; for detaching the placenta or portions of it when retained too long; also for rupturing the membranes containing the amniotic fluid, and thereby inducing or hastening labor-pains when the life of the female may be menaced by the following or any other valid causes, viz: excessive vomiting, diseases of the heart, aneurism, strangulated hernia, excessive serous effusions, uterine hemorrhage, placenta previa, uterine tumors, convulsions, cancers, rupture of the uterus in previous labors, and contracted pelvis; and I do hereby declare that the following is a full, clear, and exact description of the same, which I denominate the "Compound Tubular Forceps," reference being had to the annexed drawings, making a part of this specification.

Figure 1 represents the complete instrument; *b*, the external silver tube closed against *a*, the silver cap, which is soldered onto 3, the internal brass tube, at its extremity.

Fig. 2 shows a section of the handle and tubes, and the transverse groove in the internal tube into which the screw *g* fits to fasten it in the handle *c* without interfering with the stiletto 5. The handle of the stiletto *f* will serve as a guard, when pressed in, to prevent any accident in using, so that it shall not go beyond the edge of but to the cap, a little beneath its surface.

Fig. 3 represents the internal brass tube without and with the silver cap *a* and the excavations made to the depth of one-half its diameter, to admit substances within its grasp between the external tube and cap, as in example following.

Fig. 4 shows a hold of a membrane, *h*, pierced by the stilettos. *d* is the ring or brace.

Fig. 6 is the stiletto for cutting a stricture in the urethra, being curved to fit tube, Fig. 7, which may be bent to suit the case.

I manufacture the internal tube of brass, which should be flexible and silver-plated. The external tube I make of sterling or pure silver, the stiletto of steel wire, and the one designed for cutting the stricture in the urethra must be well tempered and capable of holding a keen edge. The handle may be made of ebony or other hard wood, bone, or ivory.

Before introducing the instrument to perform an operation it is always proper to close the mouth of the forceps and withdraw the stiletto an inch or more. In many cases the stiletto need not be used at all, and even in rupturing the membranes it is only necessary when they are uncommonly tough. Care must always be used that no sensitive part be pressed upon suddenly. The tube being closed gently, the patient can always indicate to the operator if the hold be not right, which must then be slackened and the face or mouth of the forceps changed. The stiletto must never be shoved forward when the grasp of the instrument is felt by the patient, except in puncturing an abscess or operating for stricture. When the amniotic membranes are seized, no sensation is felt.

What I claim, and desire to secure by Letters Patent, is—

The combination of the tube *b*, tube 3, and stiletto, substantially in the manner set forth.

G. W. WOOLLEY.

Witnesses:
C. FALEANSLER,
H. O. BICKNELL.