

(No Model.)

A. H. BUCKMASTER.
LIGATURE HOLDER.

No. 418,271.

Patented Dec. 31, 1889.

Fig. 1.

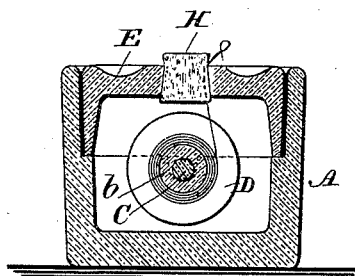
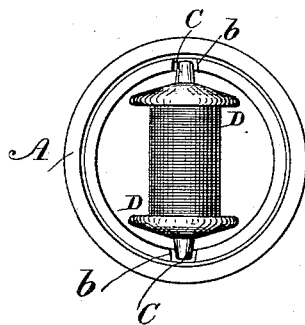


Fig. 2.



Witnesses

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attg

UNITED STATES PATENT OFFICE.

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LIGATURE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 418,271, dated December 31, 1889.

Application filed May 20, 1889. Serial No. 311,430. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS H. BUCKMASTER, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Ligature-Holders, of which the following is a specification.

The ligatures, of silk or catgut or other material, made use of by surgeons are frequently kept a long time before they are needed for use, and they are liable to become unfit for use in consequence of the deposit upon the ligatures of germs or septic substances, which often are highly detrimental to a wound in which the ligature is employed. In order to preserve such ligatures they have in some instances been wound upon spools and kept in an antiseptic fluid; but such fluid sometimes injures the ligature and the fluid is subject to evaporation, and it is difficult to introduce a ligature after the one originally inserted has been exhausted, and the ligatures are liable to become entangled.

The object of my invention is to provide a strong and reliable ligature-holder that can be rendered air-tight and surgically clean under all circumstances; that will permit the ligature to be withdrawn at any time without opening the holder, and thereby prevent any noxious substance coming into contact with the ligature. The holder is of glass, so that it may be rendered entirely free from germs by boiling or otherwise.

In the drawings, Figure 1 is a vertical section of my improved ligature-holder, and Fig. 2 is a plan view of the same.

This ligature-holder is composed of a cup A, having within it bearings or supports *b* for the axis C of the spool D, and there is a cover E, that sets into the top of the cup A and closes the same tightly. In this cover is a hole receiving a cork H. The cup A, with the bearings *b*, are of one piece of glass formed in a proper mold, and the spool D is also of glass, and it may be tubular for the passage of the axis C; or such axis C may be made by projections at the ends of the spool. In all cases the cup, the spool, and its axis, being of glass, can be cleansed in the most perfect manner before the ligature, of silk,

catgut, or other material, is wound upon the spool, and the spool and axis are to be dropped into place within the cup, and the lower edge or flange of the cover, extending down above the axis of the spool, holds such axis in position; but the spool is free to rotate as the ligature is drawn off the same, and it is preferable to pass one end of the ligature through the opening in the center of the cover before inserting the cork, so that the ligature may be drawn off between the cork and the glass of the cover; or else the ligature may be drawn through the cork itself by threading the ligature into a needle and passing the needle through the cork.

The cover may be ground into the cup, so that the cover forms a glass stopper to the cup, the parts being air-tight; but I prefer to use a loose-fitting cover and a packing of cotton in the joint, and paraffine or other wax run into the joint upon the cotton to render the cover air-tight.

By this improvement the ligature is kept in perfect order and free from atmospheric influences for an indefinite period of time, and there is no possibility of such ligature becoming contaminated or dangerous from the deposit of germs or spores upon the same.

The cork or stopper is preferably inserted from the under side of the cover, the lower end of the hole for such stopper being the largest, in order that the tension on the ligature as drawn out may tend to force the cork more tightly into the cover, instead of such cork being pulled out when drawing the ligature out of the holder.

I claim as my invention—

1. The ligature-holder composed of the glass cup, with a glass stopper or cover, in combination with a spool for holding the silk or catgut ligature, the axis of the spool being received into bearings upon the inner surface of the glass cup and held in its position by the edges of the cover, substantially as set forth.

2. The glass cup A, having bearings *b* on its inner surface, in combination with the cover E, of glass, within the cup, with the lower edge of the flange of the cover adjacent to

the bearings *b*, a glass spool D, having an axis C, resting in the bearings *b*, and a cork for closing the orifice in the cover, substantially as set forth.

- 5 3. The ligature-holder having a cup A, of glass, a glass cover to the same with a hole therein that is largest at the lower end, and a stopper inserted into such hole from the

under side, for the purposes and substantially as set forth. 10

Signed by me this 14th day of May, 1889.

A. H. BUCKMASTER.

Witnesses:

GEO. T. PINCKNEY,
WILLIAM G. MOTT.