

W.D. Hooper,
Scarificator,
No 68,985 *Patented Sep. 17, 1867.*

Fig. 1

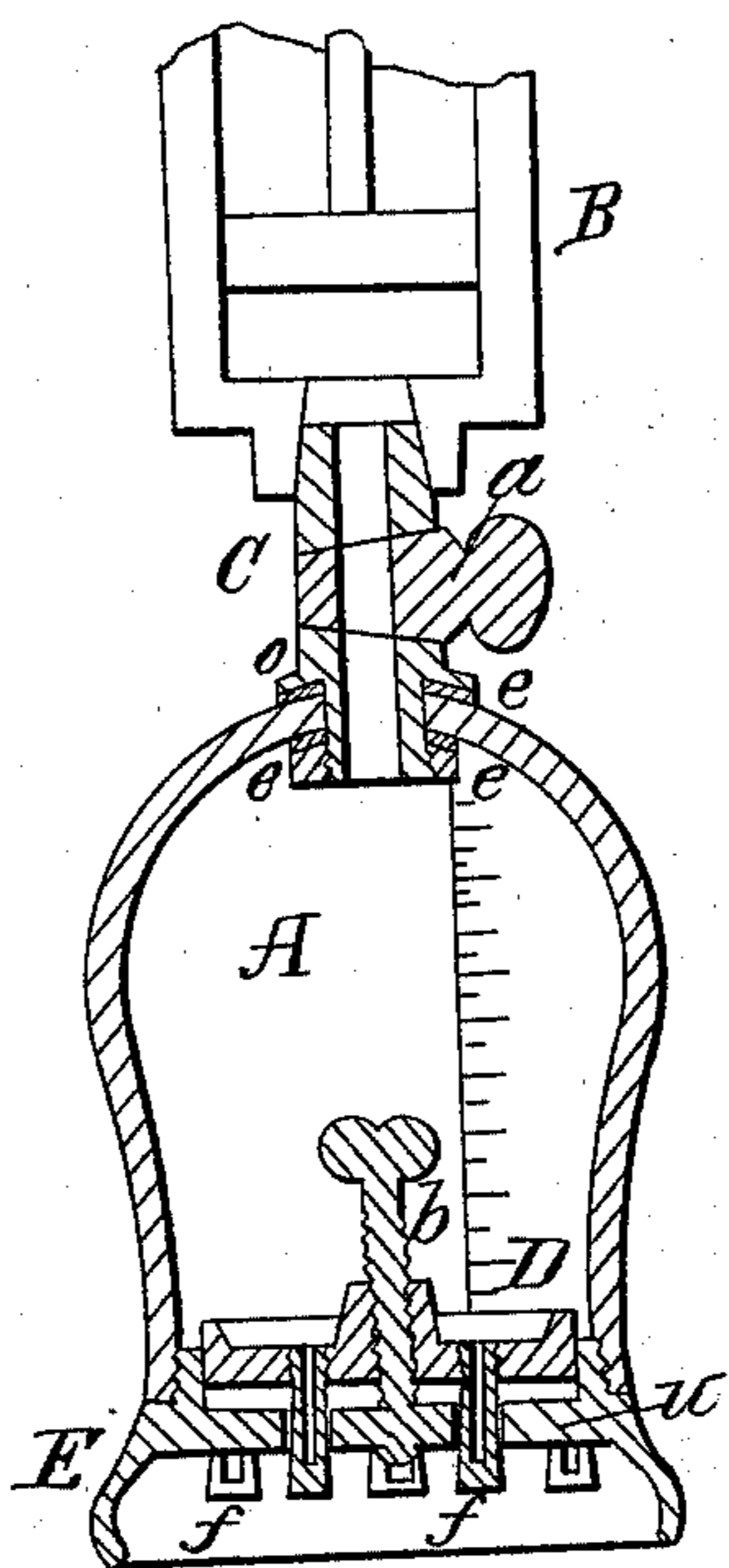


Fig. 2

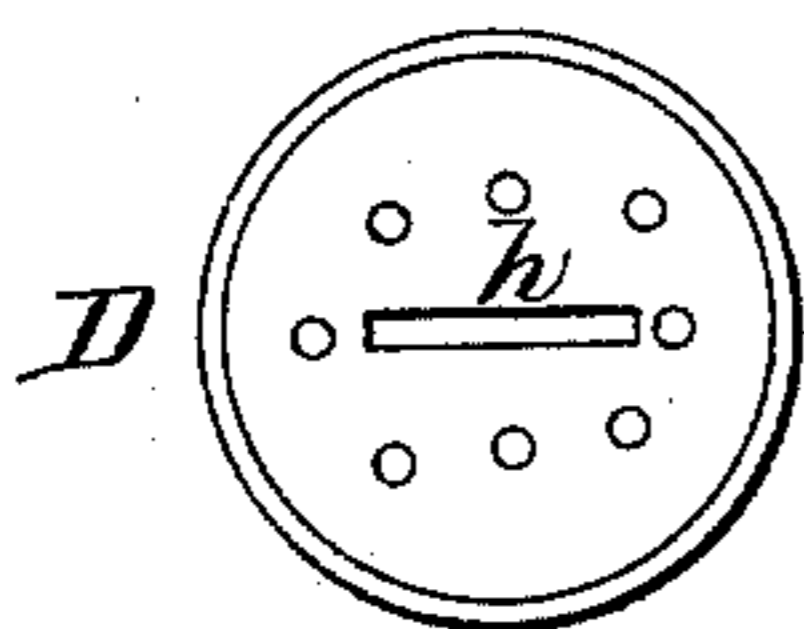
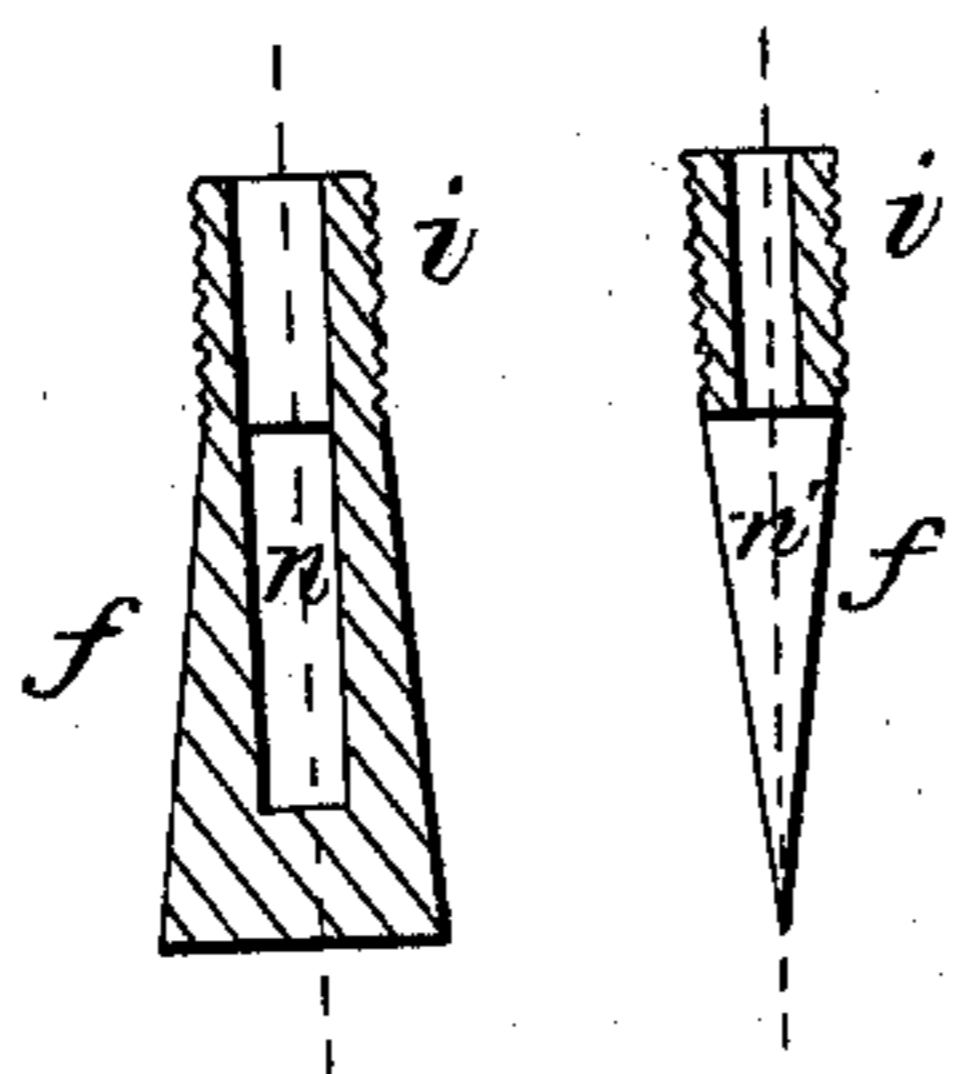


Fig. 3



Witnesses:

P. J. Dodge,
Wm. S. Goughborough

Inventor:

W.D. Hooper.
By Dodge & Munn
his attorneys.

United States Patent Office.

WILLIAM D. HOOPER, OF LIBERTY, VIRGINIA.

Letters Patent No. 68,985, dated September 17, 1867.

CUPPING APPARATUS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, W. D. HOOPER, of Liberty, in the county of Bedford, and State of Virginia, have invented certain new and useful improvements in Cupping Instruments; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention I will proceed to describe it.

My invention consists in a novel construction of a cupping apparatus, in which cutting blades are used which are tubular, to permit the blood to be drawn through them while they remain in the flesh, and which are also made adjustable, to regulate the depth of their cut, and in certain details in the construction of the apparatus.

Figure 1 is a vertical section of my improved apparatus, and

Figures 2 and 3 are portions of the same, represented more in detail.

I provide a bell-shaped cup, A, of glass or other suitable material, preferring that which is more or less transparent, and attach to its upper end a tubular stem, C, having a valve or cock, *a*, in it, as represented in fig. 1. This stem C, I make with a flange, *o*, as shown, and have its end extend far enough into the cup to receive a nut, *c*. To render it air-tight, and prevent the glass from being broken, I use a rubber washer, *e*, under the flange *o*, and between it and the cup, and also a similar washer between the nut *c* and the cup on the inside. By this means the stem can be detached and applied to another cup at any time, whenever desired. An air-pump, B, is connected to the upper end of the stem C, by a ground-joint, or by a screw, as usual, for the purpose of exhausting the air from the cup. To the mouth of the cup A, I secure a metal mouth-piece, E, which is made slightly concave around its inner lower portion, as represented in fig. 1. This is also provided with a diaphragm, *u*, having a series of holes in it of proper size to permit the cutting blades *f* to protrude through it, as shown. These blades consist of a tubular piece of full size at their upper end, and having a screw-thread, *i*, cut thereon, as shown in fig. 3, to secure them firmly in a metallic plate, D, which is fitted accurately within the upper portion of the mouth-piece E, above the diaphragm *u*, as represented in fig. 1. A thumb-screw, *b*, having its lower end journaled in the diaphragm *u*, serves to raise or lower the plate D, and thereby to adjust the blades *f*, by causing them to protrude more or less through the holes in the diaphragm *u*, as shown in fig. 1. The diaphragm *u* has a slot, *h*, formed in it to permit the head of the screw *b* to pass through it when it is desired to insert or remove the plate D with the blades for cleaning, sharpening, or other purposes. The hole or tubular opening in the blades *f* does not extend through their entire length, the lower portion being left solid, as represented in fig. 3, to form the cutting edge, which may be made of full width, as shown, or lance-shaped, as found most desirable in practice. These blades are bevelled on each side, to bring them to a sharp cutting edge; this bevelling cutting through on each side to the tubular opening *n*, this opening being filed out transversely, as represented in the right-hand figure of fig. 3 at *n'*.

It will thus be seen that when the cut has been made, by applying the cup with sufficient pressure to cause the blades to penetrate to the proper depth, the blood can at once flow through the opening in the blades, up into the cup A, while the blades remain in the flesh, by which means the punctures are kept from being closed prematurely, as frequently happens with the ordinary device. By exhausting the air from the cup, thus removing the atmospheric pressure, the flow of the blood will be largely increased, and as this is done while the blades remain in the flesh, it follows that the blood, being thus drawn from the punctures, has no time to coagulate therein, and thus close them and prevent its flow, as is the case where the blades are removed. Not only is the atmospheric pressure thus removed from the surface of the flesh, but also from the vertical surfaces of the cuts, at which points the blood-veins have been severed, thus applying the power of the suction (or absence of atmospheric pressure) directly to the open ends of the veins themselves. By these means the flow of the blood may be greatly stimulated and increased, and can be regulated by creating more or less of a vacuum within the cup. The diaphragm *u* also serves as a rest or support for the surface of the flesh between the cuts; as, when the surface is drawn outward by the suction power of the pump, it will come in contact with the under surface of the diaphragm, thereby relieving those portions of the surface from the effects of the vacuum, and thus lessen-

ing the sensation of pain. By marking on the cup a graduated scale, as indicated in red, the quantity of blood drawn may be determined or seen at a glance, without removing the apparatus.

Having thus described my invention, what I claim, is—

1. A cupping device having a series of tubular blades arranged to operate substantially as shown and described.

2. In combination with the cup A, I claim the detachable mouth-piece E, having holes for the blades to operate through, as set forth.

3. The combination of the mouth-piece E, plate D, having the blades *f* attached thereto, and screw *b*, when arranged for joint operation as described.

WM. D. HOOPER.

Witnesses:

WM. L. LOWREY,

R. O. LOWREY.