R. J. Dodd,

Cupping Apparatus.

No. 3,537. Patented Apr. 13, 1844

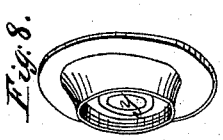
Fig. 8.

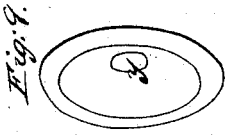
Fig. 9.

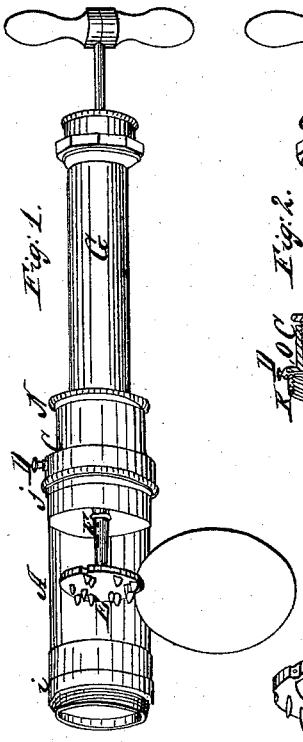
Fig. 1.

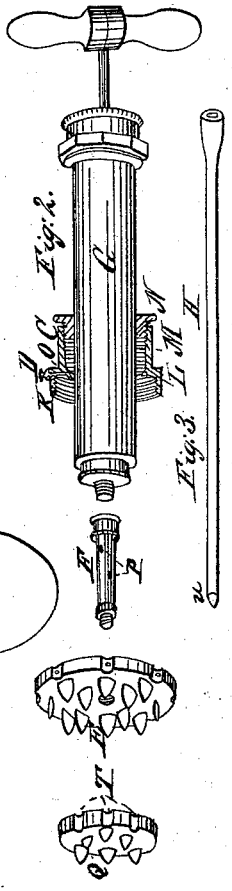
Fig. 2.

Fig. 3.

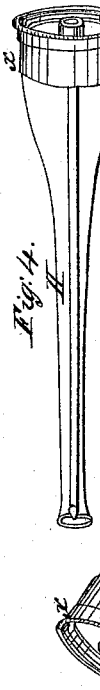
Fig. 4.

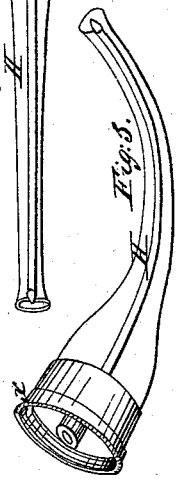
Fig. 5.

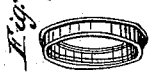
Fig. 6.

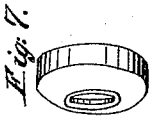
Fig. 7.

Witnesses:
D. E. Wilson
Sam'l Thurston

Inventor:
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UNITED STATES PATENT OFFICE.

ROBT. J. DODD, OF PHILADELPHIA, PENNSYLVANIA.

CUPPING INSTRUMENT.

Specification of Letters Patent No. 3,537, dated April 13, 1844.

To all whom it may concern:

Be it known that I, ROBERT J. DODD, of Philadelphia, in the State of Pennsylvania, surgeon in the Navy of the United States, have invented an Improved Cupping Apparatus, of which the following is a true and exact description.

This instrument as seen in the annexed drawing is to abstract blood, or other fluid from the usual places, as also from such other parts as hereinafter described, where ordinary instruments have been considered inadmissible.

Figure 1, A, B, exhibit the form of the cup, which is of glass. It is a straight tube (A,) with a bulb (B,) of an oblong spherical form pending on one side, for the purpose of receiving the blood or other fluid abstracted, the straight part (A,) projects no further beyond the bulb at either end, than sufficient to cement on metal caps fitted with screws (*i*, *j*,) which are of the same size, in order that the other parts of the apparatus may be accurately adjusted to them, the straight part (A,) is made sufficiently large to permit the lancet plate (E,) to pass through it.

Fig. 1, C is the stuffing box (Fig. 2, C transverse section thereof) which has a screw (K,) at the lower end, which fits the cap (*j*,) by which it is united to the straight part of the cup (A,) the center of which is drilled out, to admit the air syringe (G,) to pass through. It is then further enlarged upward, leaving a small plate of metal (L,) to support several cylindrical pieces of soft leather (M,) boiled in oil, which are placed in to fill up the space between the air-syringe (G,) and the side of the box, that it may be rendered air-tight at the top of which is a screw (N,) which confines these pieces of leather in their places, and so presses them that they hold firmly the air-syringe in the position required in any stage of the operation and the air-screw (D,) is fitted into the hole or canal (*o*,) leading from the outside of the stuffing box into its substance a short distance, opposite to the ring of metal (L,) which supports the leathers it then passes through this ring (L,) into the cup, between the air-syringe (G,) and the screw (*k*,) on the lower end, which attaches the stuffing box to the cap (*j*,) of the cup. The side of the air-screw (D,) is cut out to permit the air freely to pass. This stuffing box differs from others in use only by its its having an air canal and screw.

The air syringe (G,) is so constructed as to work readily through the stuffing box (C,) and is in other respects like those in common use, and does not require description. It has a screw at the end to receive the small piece (F). The small piece (F,) is merely to connect the air syringe (G,) with the lancet plates (E, ẟ,) or lancet rod (H,), it is a small round tapering piece of metal, having a hole through the center of the end which connects with the air syringe, extending about half its length, and communicates with the holes bored through the side (P,). These holes are intended to admit the air from the cup into the air syringe.

The lancet-plates (E, ẟ,) screw on the piece (F,). They are flat circular pieces of metal of different diameters to accord with the holes in the caps (Fig. 6, and 7). The large one to be used with the flat cap (Fig. 6,) and the small one with the convex cap (Fig. 7,). The lancets are inserted into them regularly, and at equal distances, which are secured by pins (T,) so that they can be taken out, and put in order when necessary. The large plate contains twelve, and the small one six lancets. The flat cap (Fig. 6) is intended merely to present an even surface to the part operated upon. It is made with a screw which fits the one on cap (*i*,) of the cup, and is used when the lancet-plate (E) is employed. It has a large orifice through it to permit the lancet plate to act without coming in contact with its edge. It is reversed to the instrument in the drawing to exhibit the screw. The convex cap (Fig. 7) is used with the small lancet plate (ẟ,) in the same manner as the flat cap with the large lancet-plate, and differs in its construction from it by preventing a convex surface and having a smaller orifice through it.

The flexible metal rod (Fig. 3, H,) has on its smaller end a sharp triangular lancet (*u*,) which is made with a small screw that secures it to the rod (H,) at the larger end the rod has a screw which fits on the small piece (F,) it is made of the ordinary flexible metal. This rod with lancet is used instead of the lancet plates when either of the glass tubes are employed.

The straight glass tube (Fig. 4,) and the curved glass tube (Fig. 5,) have fitted to

them metal caps with screws (*x*,) which are cemented on at the larger ends of them, and are accurately adapted to the screw on the cap (*i*,) of the cup. They are then tapering in shape to the points which are a little bulged out in order to secure a better hold on the parts to which they may be applied. The nipple cap (Figs. 8, 9,) is also made with a screw which is accurately adapted to the screw on the cap (*i*,) of the cup. It is constructed with large concave circular metal plate with a hole (*v*,) in the center to admit the nipple, thereby giving ample support to the breast without coming in contact with the nipple. When applied it is removed by means of the air screw (D,) in the stuffing-box (C,) without giving pain or uneasiness. When it is used the lancet plates and lancet rod are necessarily not employed.

Between each of the caps are placed leather washers so that when the apparatus is ready for application it is perfectly air-tight.

The metal work, with the exception of the rod and lancets, is made of brass plated with silver, but it may be constructed of any suitable metal, and of a different form from what is exhibited, without impairing the principle, or mode of application, the tubes may also be made of metal which would avoid the danger of their breaking, and even the cup itself but a glass cup always insures a perfect view of the whole operation.

The lancets may likewise be of a different form, and be made with or without springs to suit particular cases, and the abstraction of different fluid substances.

Fig. 1, exhibits the instrument ready to be applied by adding the flat cap. The open end is then applied and the air abstracted, when by the pressure of the external atmosphere on the air-syringe, the lancet-plate is caused to approach the part, the operator by a slight rotary motion of the air-syringe scarifies it. The lancet plate is then withdrawn sufficiently to allow the blood to flow into the bulb, at the same time the screw on the stuffing-box is tightened, which secures the air-syringe in its position a few strokes of the piston continues the operation, by turning the air-screw the process is finished and the instrument removed.

If an internal part of the throat, vegina or rectum is intended to be acted upon the straight or curved tube with the lancet-rod are put on, and the process of application is the same as above described.

When the lactic ducts of the breasts have become obstructed, or the nipples too sore and tender for the child to be applied or the infant is unable to perform that office, the nipple cap alone is used on the cup.

This instrument differs from all others of the same class by raising the flesh, scarifying it, and abstracting the blood or other fluid in one process and by means of the air-screw removed in the most gentle manner. The parts only which are raised within the instrument are acted upon, so that the subjacent parts are not liable to injury.

I claim and ask a patent for the said instrument as above described and for the purposes as specified.

What I claim as new and original is—

1. The above described method of combining an exhausting syringe with a cupping apparatus, such as is represented in Fig. 1, or Fig. 4 or Fig. 5, or any other substantially the same in principle, by means of the cup and stuffing-box as above described.

2. I also claim in combination with the above the manner in which I operate the lancets for the various purposes above specified, the whole being constructed and operating substantially in the manner set forth.

In testimony whereof I the said Robert J. Dodd hereto subscribe my name in the presence of the witnesses whose names are hereto subscribed on the twenty third day of January A. D. 1844.

R. J. DODD.

Witnesses:
D. E. WILSON,
SAM'L. SWEETSER.