(No Model.) 2 Sheets—Sheet 1.

C. L. BARD.

SYRINGE CUT-OFF.

No. 589,806. Patented Sept. 14, 1897.

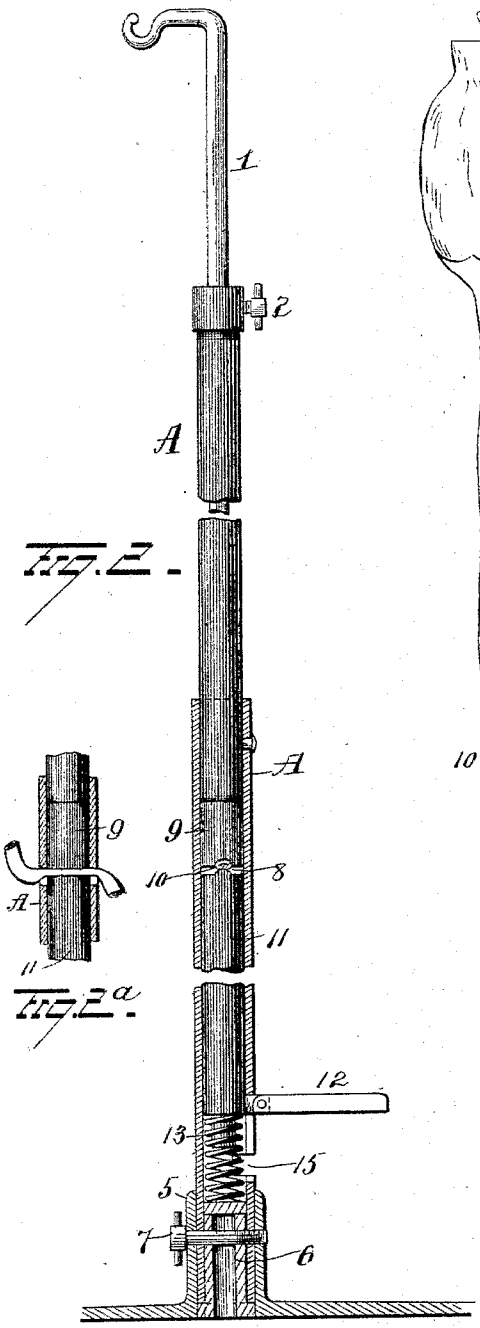


Fig. 2.

Fig. 2a.

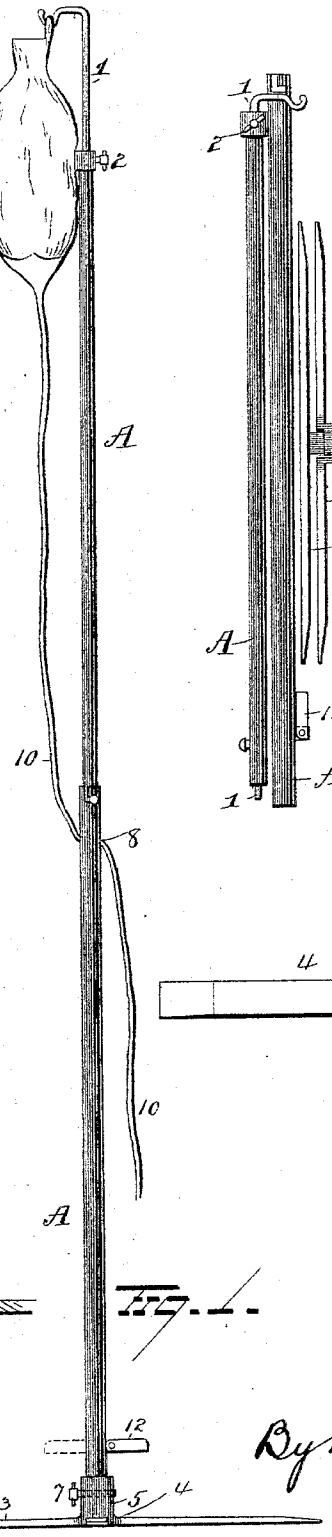


Fig. 1.

Fig. 3.

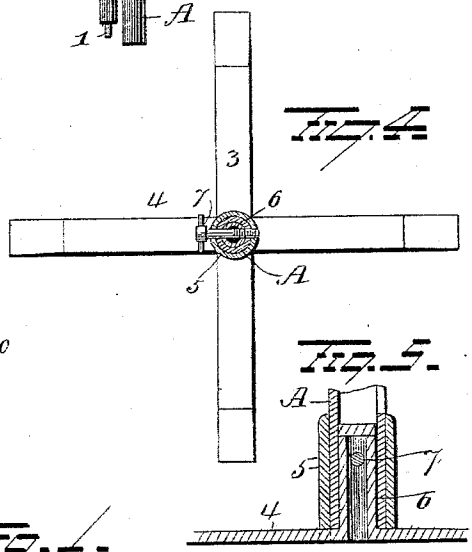


Fig. 4.

Fig. 5.

Witnesses
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G. F. Downing.

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By H. A. Seymour
Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

C. L. BARD.

SYRINGE CUT-OFF.

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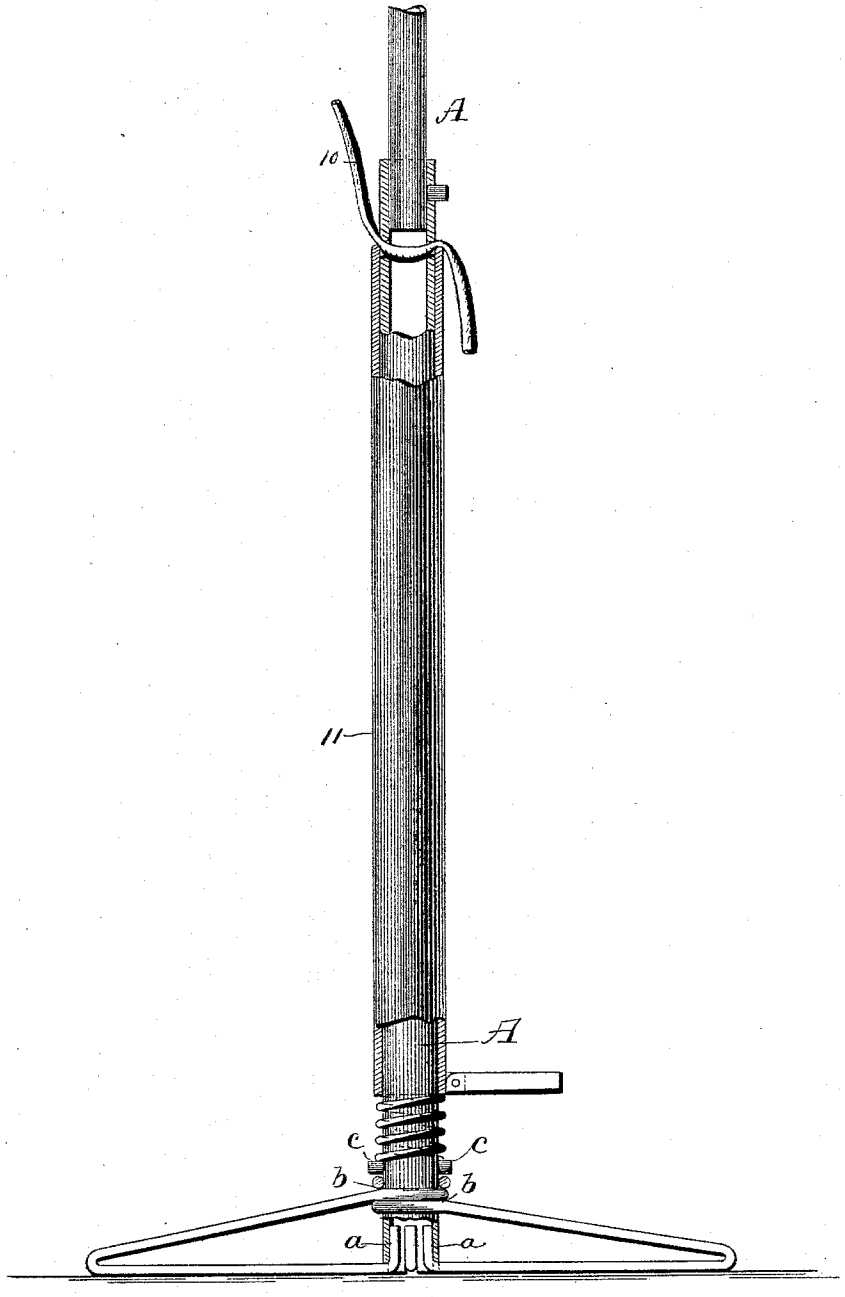


Fig. 5.

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UNITED STATES PATENT OFFICE.

CEPHAS L. BARD, OF VENTURA, CALIFORNIA.

SYRINGE CUT-OFF.

SPECIFICATION forming part of Letters Patent No. 589,806, dated September 14, 1897.

Application filed April 8, 1897. Serial No. 631,280. (No model.)

To all whom it may concern:

Be it known that I, CEPHAS L. BARD, a resident of Ventura, in the county of Ventura and State of California, have invented certain new and useful Improvements in Syringe Cut-Offs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in irrigating-stands having pedal cut-offs, its design being to permit and stop a flow of water, compressed air, gas, or, in fact, any fluid, through rubber or other compressible tubing, and it is intended especially for the use of surgeons, veterinarians, dentists, and nurses who have occasion to use a stream or flow of fluid, as gas, air, or water. It is especially intended for use with the common gutta-percha fountain-syringe and is an adjunct to it. Hitherto such syringes have generally been suspended from the wall, bed, or ceiling, and the stream was controlled at or near the delivery by a hand-operated cut-off or valve. The particular merit of my present invention is that it can be operated more quickly than the forms now in use and to very much better advantage. Being controlled, as it is, by foot, the operator, especially if a surgeon, will not find it necessary to use his hands, which are generally engaged in holding cutting or other instruments, and, furthermore, the danger of infecting the hands by contact with other forms of cut-off is absolutely removed. All that is necessary for the surgeon to do is to seize the delivery-nozzle, usually of glass, and direct it to the spot where he desires the stream delivered. Usually the management of the irrigating apparatus has been intrusted to an assistant. With my device the assistant will find his task less laborious and he will be more quickly able to deliver a stream when asked to by the surgeon.

With this invention the services of an assistant are not so necessary, as the surgeon can operate the irrigating device just the moment he wants it, while both hands are otherwise engaged. The modern antiseptic treatment of wounds demands that the hands of the operator should touch the instruments as little as possible, and my device meets this requirement.

In the accompanying drawings, Figure 1 is a view in elevation of the apparatus. Fig. 2 is a section in detail of a slightly-modified construction of cut-off. Fig. 2^a is a detail view of the cut-off. Fig. 3 is a view showing the standard folded into compact compass for transportation, and Figs. 4 and 5 are views showing the base. Fig. 6 is a modification.

A is the standard. This is preferably composed of two or more tubes or rods detachably connected together and locked by set-screws, or not, as the case may be. The upper section 1 is preferably a rod held in the upper section of the standard at any desired elevation, accordingly as it is desired to raise or lower the reservoir by a thumb-screw 2. The rod is bent laterally at its upper end and provided with a hook for the support of the water-bag.

At the lower end the standard is supported on a suitable base. This base is usually made of two parts 3 and 4, similar in general construction and detachably connected with the lower end of the standard by means of the two center tubes 5 and 6 on them, respectively, one of which enters the lower end of the tube and the other of which receives the tube in it, and, if necessary, a pin or bolt 7 may be passed through these sleeves and the tube holds them all detachably together when the parts are set up, as shown in Fig. 1. By removing the base and separating the standard, the parts can be packed together in a compact space for transportation, as shown in Fig. 3.

In addition to the particular construction of standard described or independently of this particular form of standard I employ my improved cut-off. A hole 8 is formed transversely through the standard immediately below a block 9, and through this hole the tube 10 of the syringe is passed. Beneath this hole a slide-rod 11 is located, and this rod is held up against the tubing, with suitable pressure to close it, by means of a spring 13 in the tube beneath the rod expanding upwardly thereagainst. The lower end of this block 9 may be concaved and the upper end of the rod convex, as shown in Fig. 2, or vice versa, or these ends may be straight and flat, as shown in Fig. 2^a, if desired, the former

construction being preferred. A foot bar or pedal 12 is secured to rod 11 at or near its lower end. This bar or pedal projects out through a slot in the tube in one or two directions, as indicated, and in order to get this bar or pedal out of the way when the parts are folded it may be hinged, as shown in Fig. 3. To secure the rod 11 in a depressed position to permit the fluid to flow without retaining the foot constantly upon the foot bar or pedal, a horizontal slot 15 may be provided for the pedal to be thrown sidewise into.

There are occasions—for instance, in hospitals where permanent reservoirs are in use—when the upper portion of the standard is not required. In that event the upper part is removed or dispensed with. In fact, standards might be made without this top extension for cut-off purposes merely.

The base might be made of wire, as shown in Fig. 6, in which event the two sections are similar in construction, each consisting of a single piece of wire fastened, as shown, the extremities *a a* entering the interior of the standard and pressing outwardly against the wall thereof. The opposite ends *b b* coil around the outside of the standard. If necessary, lugs *c c* may be located above these coils to make the attachment more secure.

It is evident that other slight changes, as locating the cut-off outside instead of inside, might be made in the form and arrangement of the several parts described without departing from the spirit and scope of my invention. Hence I do not wish to limit myself to the exact construction herein set forth; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A stand having a support at or near its upper end for the attachment of a bag-syringe and provided at or near the lower end with a pedal cut-off for the tubing extending from the bag.

2. The combination with a standard, of a spring-actuated slide having a pedal connected therewith for operating it, said slide operating in connection with a fixed part of the standard to compress tubing passing between said parts.

3. An irrigating-stand containing pedal cut-off, composed of detachable parts which can be compactly packed for transportation.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CEPHAS L. BARD.

Witnesses:
JAS. R. ARNEILL,
W. H. BARNES.