

(No Model.)

H. SANCHE.

APPARATUS FOR PRODUCING THERMAL RESULTS.

No. 587,612.

Patented Aug. 3, 1897.

Fig. 1.

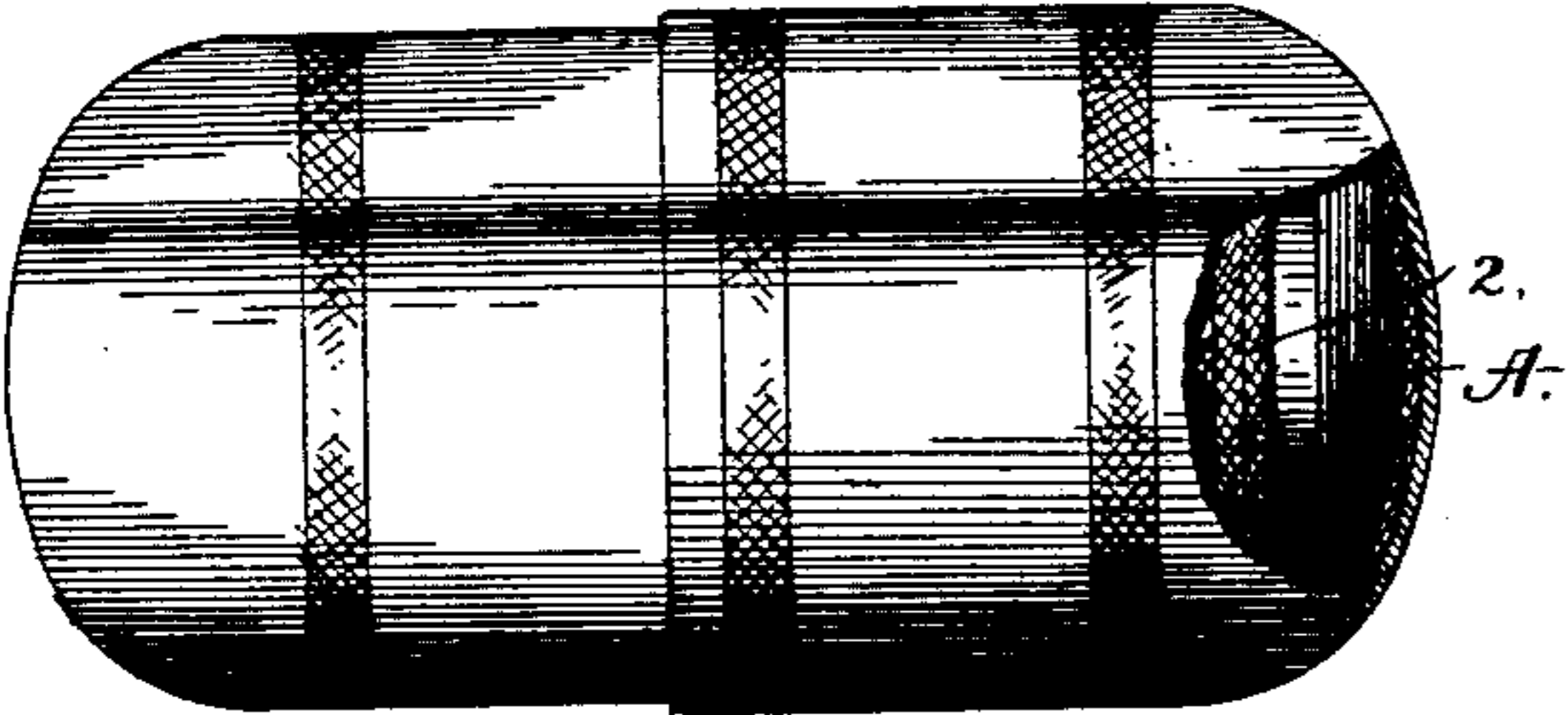


Fig. 2.

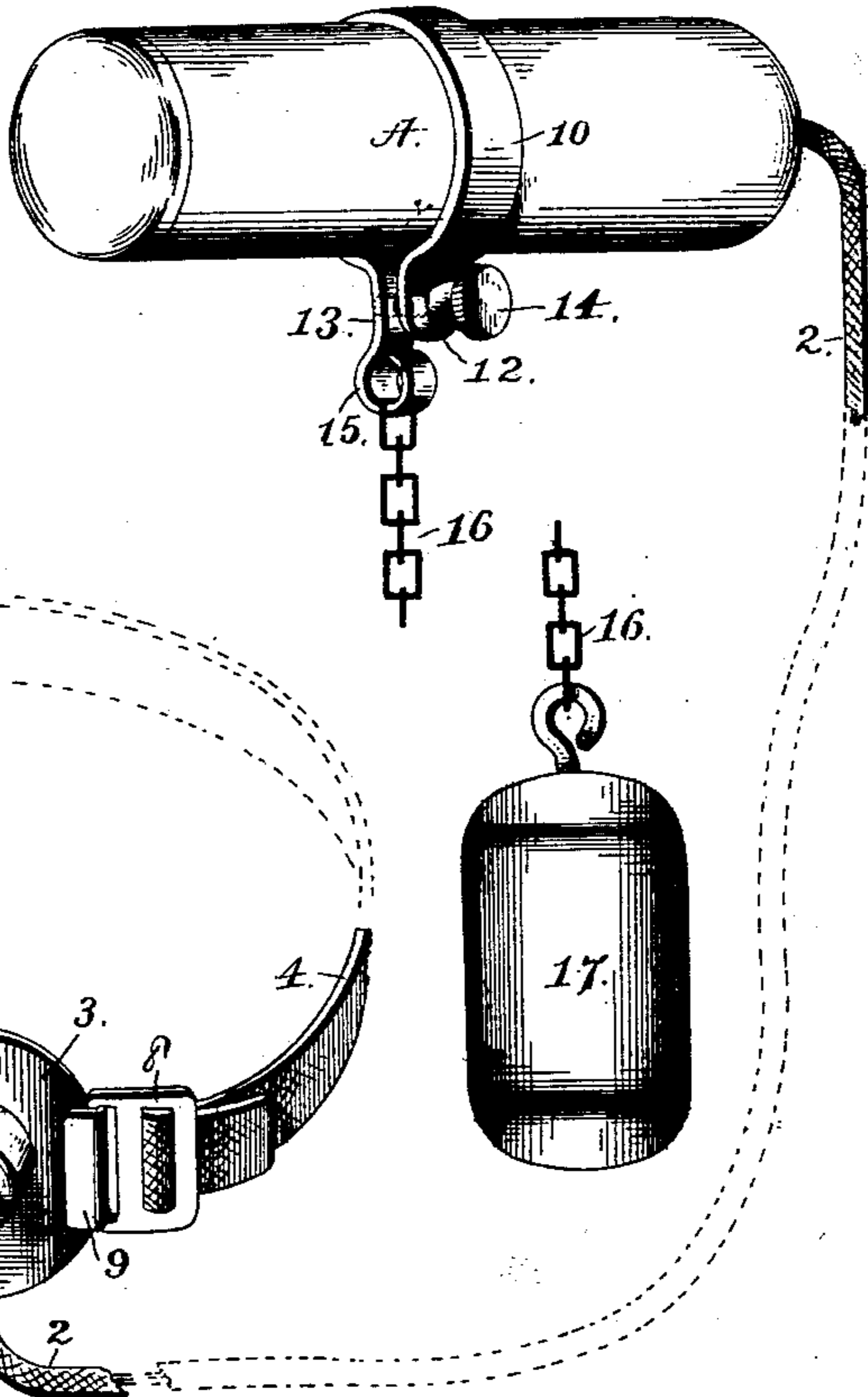


Fig. 3.

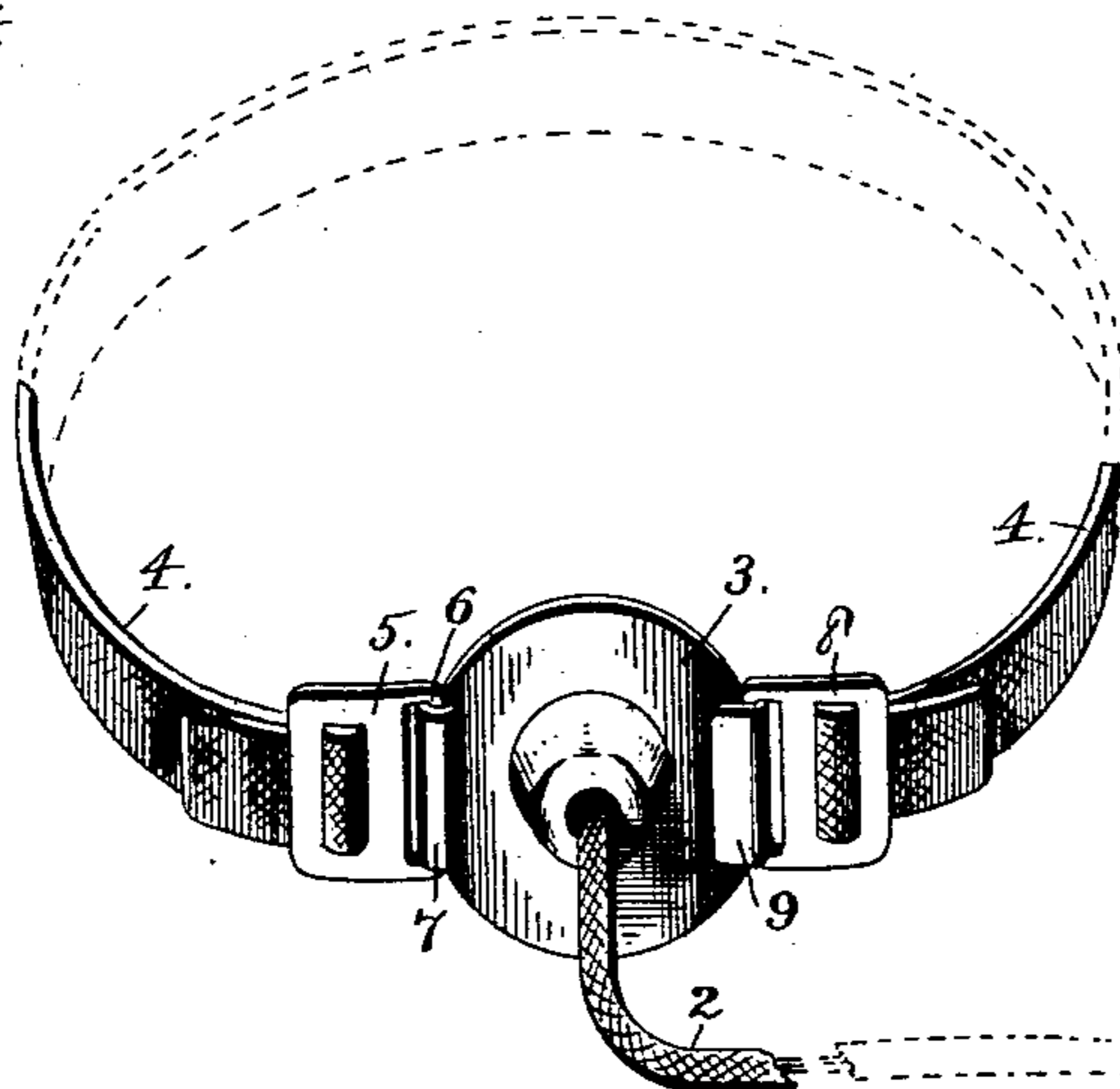
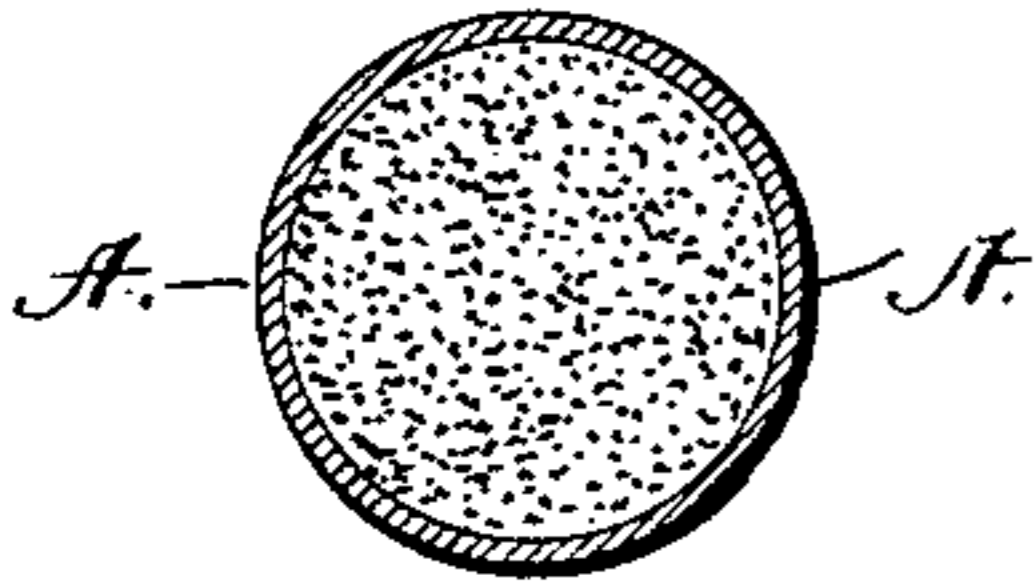


Fig. 4.

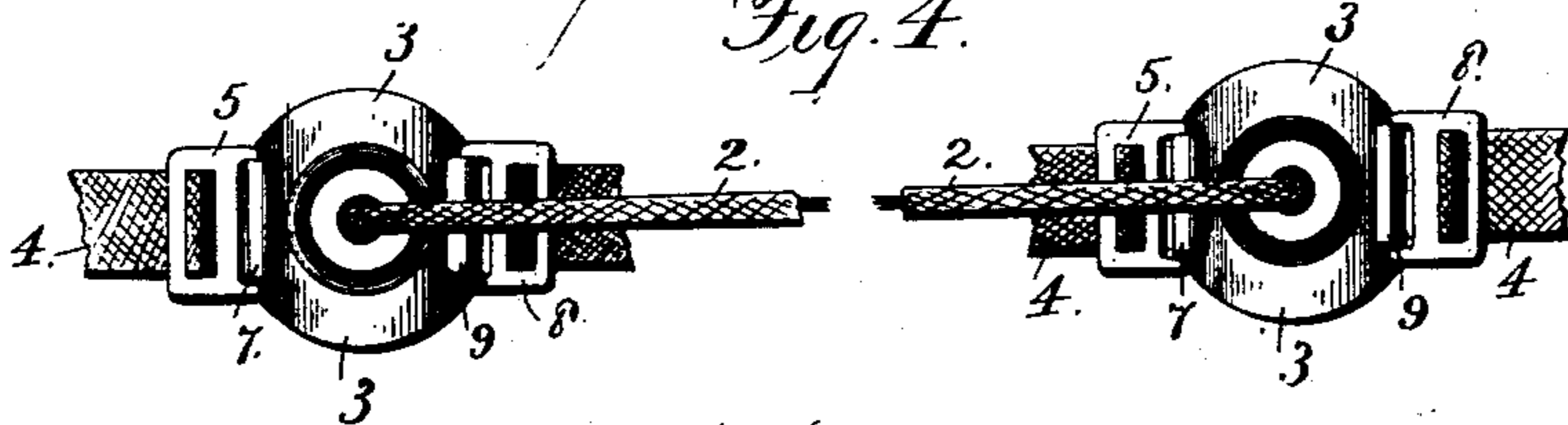
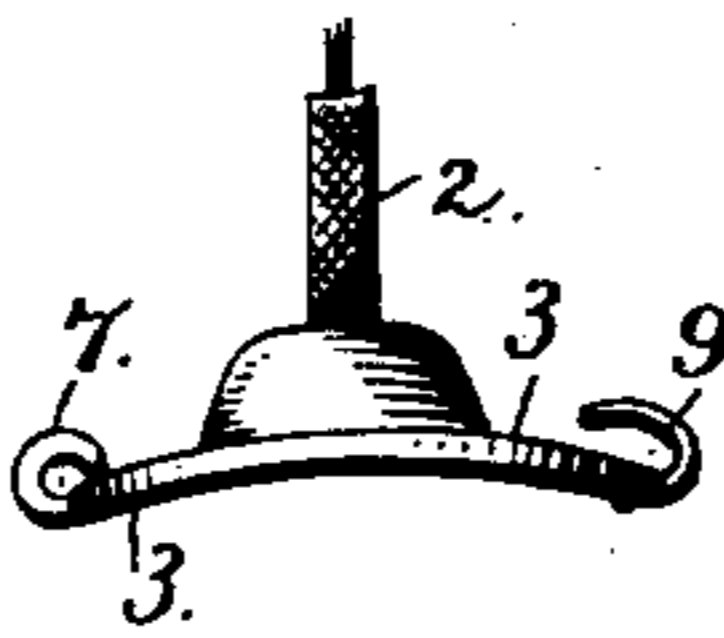


Fig. 5.



Witnesses:

Jack Hutchinson.

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# UNITED STATES PATENT OFFICE.

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## APPARATUS FOR PRODUCING THERMAL RESULTS.

SPECIFICATION forming part of Letters Patent No. 587,612, dated August 3, 1897.

Application filed May 29, 1890. Serial No. 353,614. (No model.)

*To all whom it may concern:*

Be it known that I, HERCULES SANCHE, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Apparatus for Producing Thermal Results, of which the following is a specification.

My present invention relates to a class of devices which I have used in cases of illness, said invention consisting in the novel features and combinations of parts hereinafter fully set forth, and then definitely pointed out in the claims following the description.

To enable others to understand and to make, construct, and use my said invention, I will proceed to describe the same in detail, reference being had to the accompanying drawings, in which—

Figure 1 is a view showing the shell or packing-case partly broken away to expose the devices contained therein. Fig. 2 is a perspective view of the metallic cylinder, partly shown in Fig. 1 as incased in the containing-shell, with its connections or adjuncts. Fig. 3 is a transverse section of the cylinder shown in Fig. 2. Fig. 4 is a view of a duplex attachment whereby the cylinder and its cable may, if desired, be connected to two persons. Fig. 5 is a side elevation of the contacting-plate with a short section of the cable attached.

The reference-letter A in said drawings indicates a metallic cylinder or cylindrical shell of comparatively small dimensions. It is permanently closed at both ends, and I prefer to fill or nearly fill said cylinder with sulfur, or a chlorid or bichlorid of mercury, or iodine, or chlorid of ammonia. Any one of these materials may be used, and under ordinary circumstances it will improve the action of the device.

At one end of the cylinder or cylindrical shell A a wire or cable 2 is attached, having a covering of any suitable kind. Said cable is of any suitable length, and at the other end it is attached to a plate or disk 3, slightly concaved to enable it to sit easily upon the limbs. The plate is secured to the person by means of a strap 4, the ends thereof connected to buckles 5, which are engaged with one closed

and one open hook 7 and 9, respectively, Fig. 5, upon opposite sides of the disk or plate 3.

The numeral 10 denotes a clasp large enough to encircle the shell A and provided at its separated ends with a set-screw 14, passing loosely through one end 12 and tapped through the other separate part 13 to enable the clasp to be drawn tight upon the cylindrical shell A. To the end 13, which is prolonged and bent into the form of a hook or eye 15, one end of a chain or other suitable flexible connection 16 is attached, having at its other end a weight 17, having sufficient gravity to counterbalance the cylinder A, or nearly so.

In using the device I proceed as follows: The strap 4 being placed around a limb—such, for example, as an ankle—and being so fastened that the plate or disk 3 will have good contact with the skin the cylinder or shell A is placed where it is exposed to a low temperature. If the room occupied by the user be a cold one, the cylinder may be laid upon the floor, the user being warmly stowed away in bed. Should the temperature of the room be high, however, the cylinder may be placed outside the window, where it will be conveniently suspended by the chain 16 and weight 17. If preferred, it may be placed in ice-water or upon a block of ice.

The apparatus provides a very simple and inexpensive apparatus, which is entirely safe, may be easily carried in the pocket, and readily and quickly applied and detached.

It is unnecessary to attempt to define the theory of action of this apparatus. It is known that heat tends to flow from a hotter to a colder body and will not of itself flow the other way. This is the second law of thermodynamics. I distinctly disclaim the use of dynamic electricity and will go no further than to state that it is now an established scientific fact that a perceptible change in potential is produced by connecting two bodies of matter which are of widely-different temperature.

The physical and therapeutic results which are to be obtained by the use of the apparatus described and shown are not a proper part of this specification.

The invention is used in the manner set

forth in cases of colds and febrile affections, as well as other disturbances arranged in the same category.

What I claim is—

5 1. An apparatus of the type set forth, consisting of a metallic cylinder, or shell, a wire cable connected at one end to said shell, and a contact-plate connected to the other end of said cable and provided with a suitable strap,  
10 substantially as described.

2. The combination with the metallic cylinder or shell filled with a material, as set forth, of a wire cable attached to one end of said cylinder and a contact-plate attached to the

other end of said cable and provided with a 15 strap, substantially as described.

3. The combination with a metallic shell having a detachable clamp and a chain and weight connected to said clamp, of a wire cable connected to one end of said cylinder and a 20 contact-plate attached to the other end of the cable, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

HERCULES SANCHE.

Witnesses:

JAMES L. NORRIS,  
J. A. RUTHERFORD.