(No Model.)

W. H. DALY.

WATER BAG.

No. 543,177. Patented July 23, 1895.

Fig. 5,

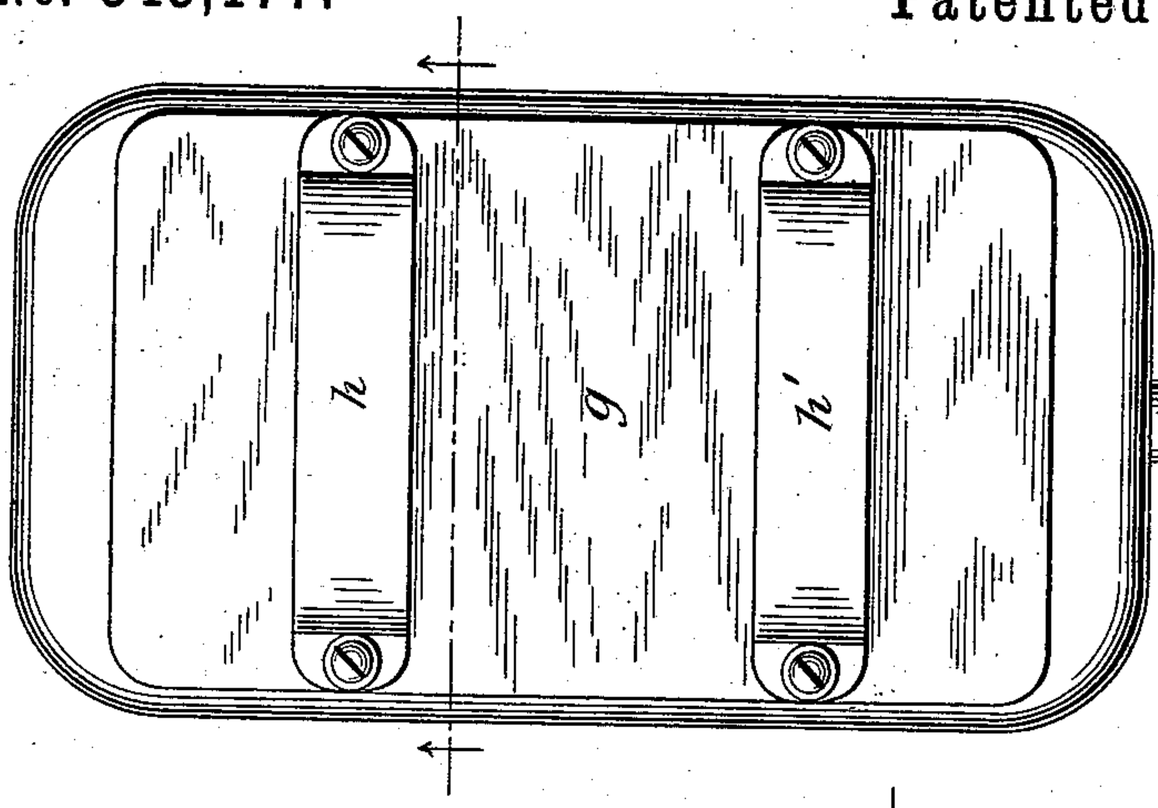


Fig. 6,

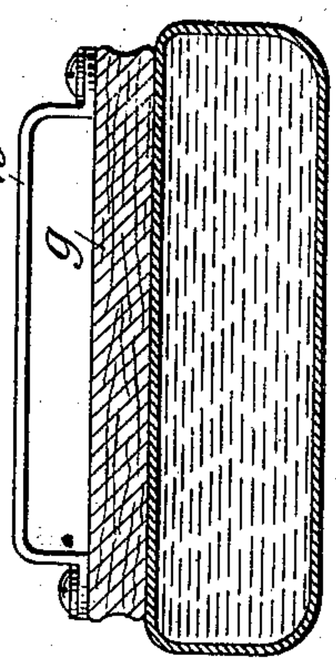


Fig. 3,

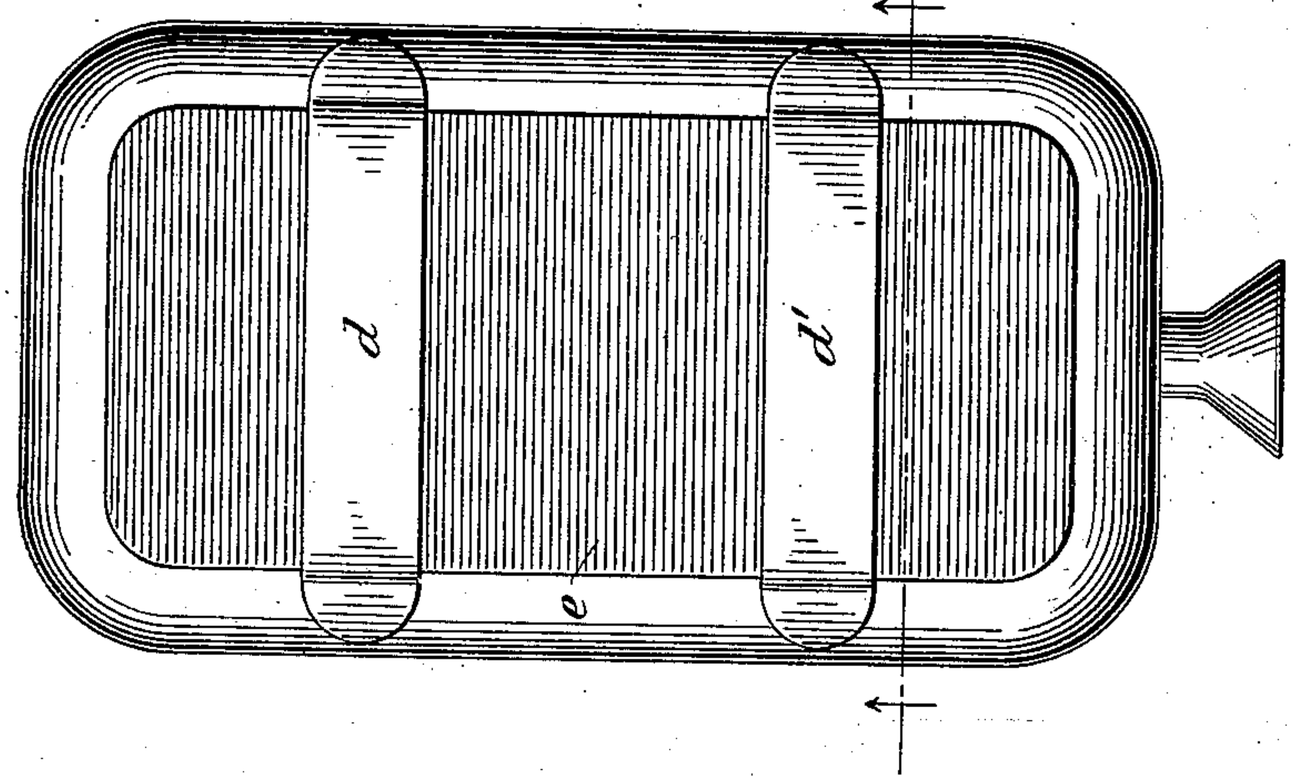


Fig. 4,

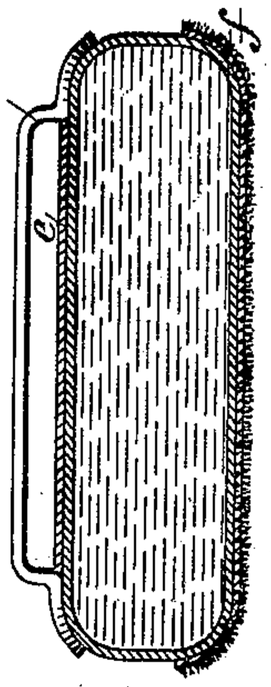


Fig. 1,

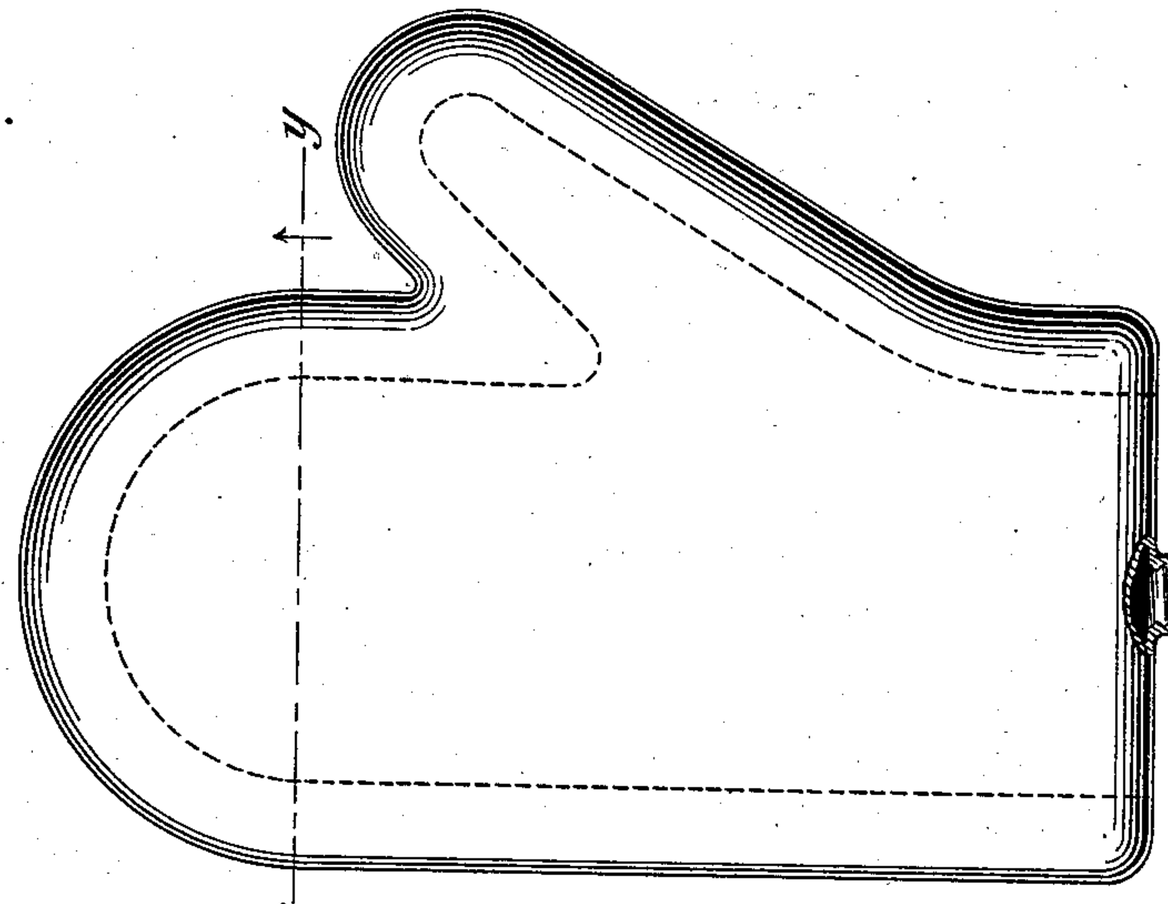
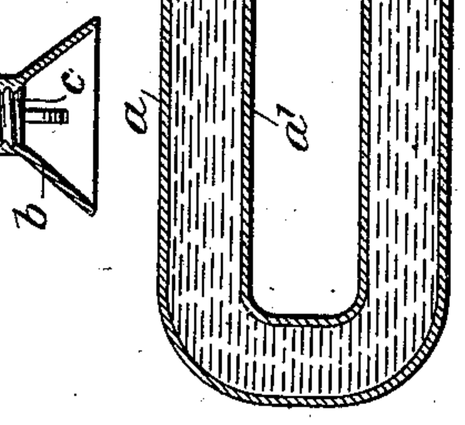


Fig. 2,



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM H. DALY, OF BAYONNE, NEW JERSEY.

WATER-BAG.

SPECIFICATION forming part of Letters Patent No. 543,177, dated July 23, 1895.

Application filed November 28, 1894. Serial No. 530,210. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. DALY, a citizen of the United States, residing at Bayonne, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Water-Bags, of which the following is a specification.

This invention relates to water-bags or similar therapeutic appliances for the local application of heat or cold to the body.

The object of the invention is to enable the operator or user to conveniently handle the bulky bag containing the hot or cold fluid and to hold it for a more or less prolonged period without difficulty on the desired portion of the body.

In carrying out my invention I provide a liquid-proof bag constructed of a material capable of withstanding the temperatures to which the bag is subjected in service without leakage, and so construct it that the operator or user may secure it to the hand. For this purpose the bag may be constructed in the form of a mitten or glove, or may have a non-conducting backing of flexible material secured to it, or may be provided with straps or a handle by which it may be gripped by the hand.

With these objects in view the invention comprises a liquid-proof bag adapted to be filled with or emptied of a liquid and provided with means for holding it in the hand.

The several features of novelty of the invention will be more particularly hereinafter described, and will be definitely indicated in the claims appended to this specification.

In the accompanying drawings, which illustrate the invention, Figure 1 is a plan view of one form of the invention, and Fig. 2 is a section of the same on a plane indicated by the line *x y*, Fig. 1. Fig. 3 is a plan view of a modification of the invention, and Fig. 4 is a sectional view of the same. Fig. 5 is a plan view of another modification, and Fig. 6 is a sectional view of the same.

In Fig. 1 the device comprises a hollow glove or mitten provided with a space between its inner and outer walls *a a'* and with a protruding neck or funnel *b* at a suitable point, in which fits a screw plug or stopper *c*, by removing which the bag may be filled with liquid. The hand may then be inserted within the mitten-shaped space in the interior and the bag applied locally and held in place without material discomfort to the operator. In lieu of having the space to receive the hand entirely surrounded by water one side of the bag may be provided with a glove or mitten shaped receptacle for the hand, or straps may be secured thereto, as indicated at *d d'* in Fig. 3, and the surface of the bag next to the hand may be covered with a heat-non-conducting fabric, as felt, as indicated at *e*. In the form shown in Fig. 1 the inner wall of the mitten may also be lined with felt. In some cases, also, it is desirable to mitigate the intensity of the heat upon the surface to which it is applied, and in such cases the bag may be provided with a felt or other poor heat-conducting surface, as indicated at *f* in Fig. 4.

In lieu of the straps *d d'* indicated in Fig. 3 a non-conducting backing of wood, as indicated at *g* in Fig. 6, may be provided and rigid metal straps *h h'* be secured to the wooden backing.

Tho filling-orifice *b*, when the bag is in the form of a mitten, will preferably be located at the open end, so as not to form an incumbrance to the use of the device.

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

1. The device for local application of heat or cold to any part of the body at the will of the patient herein described, consisting of a water proof receptacle, for holding water formed and constructed to be attached to the human hand and supplied on its exterior with means for receiving the hand as described, with its heat conducting surface outward, substantially as shown and specified.

2. A device for communicating heat or cold to parts of the human body at will of the patient, consisting of a water pad or receptacle with means for filling and emptying the same, means for fitting and securing it to the human hand, and a heat non-conducting material applied over that part of the wall of the receptacle designed to come next the palm of the hand, for protecting the same, substantially as shown and specified.

3. A water proof receptacle, having means for filling and emptying the same, and a cavity outside of the liquid-containing cavity,

adapted by size and form for the insertion of the human hand, whereby the said water holding receptacle may be conveniently applied at will to portions of the body of the user, and thus impart or abstract heat to or from the part so treated in a measure governed by the sensations of the user, for hygienic purposes, substantially as shown and specified.

4. A water bag, forming a cavity into which hot or cold liquids can be introduced, provided on one side with a glove or mitten-shaped receptacle formed to fit the human hand, whereby the said water bag may be applied by the hand of the user to portions of the body for the purpose of imparting heat thereto or abstracting it therefrom in a measure governed by the sensations of the user, substantially as described.

5. A water bag, forming a cavity into which hot or cold liquids can be introduced, provided on one side with a glove or mitten shaped receptacle formed to fit the human hand, the side of the said water bag next the glove portion being provided with a heat non-conducting layer for protecting the hand, and the outer wall being formed of relatively good heat conductive material substantially as described.

6. In a water pad for local application of heat or cold to the person of the operator, a fluid-containing cavity having an outer impervious conductive wall, an inner impervious non-conductive wall, and means for attaching and holding the non-conductive wall in close contact with the palm of the hand of the operator, substantially as shown and specified.

In testimony whereof I have hereunto subscribed my name this 27th day of November, 1894.

WILLIAM H. DALY.

Witnesses:
ROBT. H. READ,
GEORGE A. ADAMS.