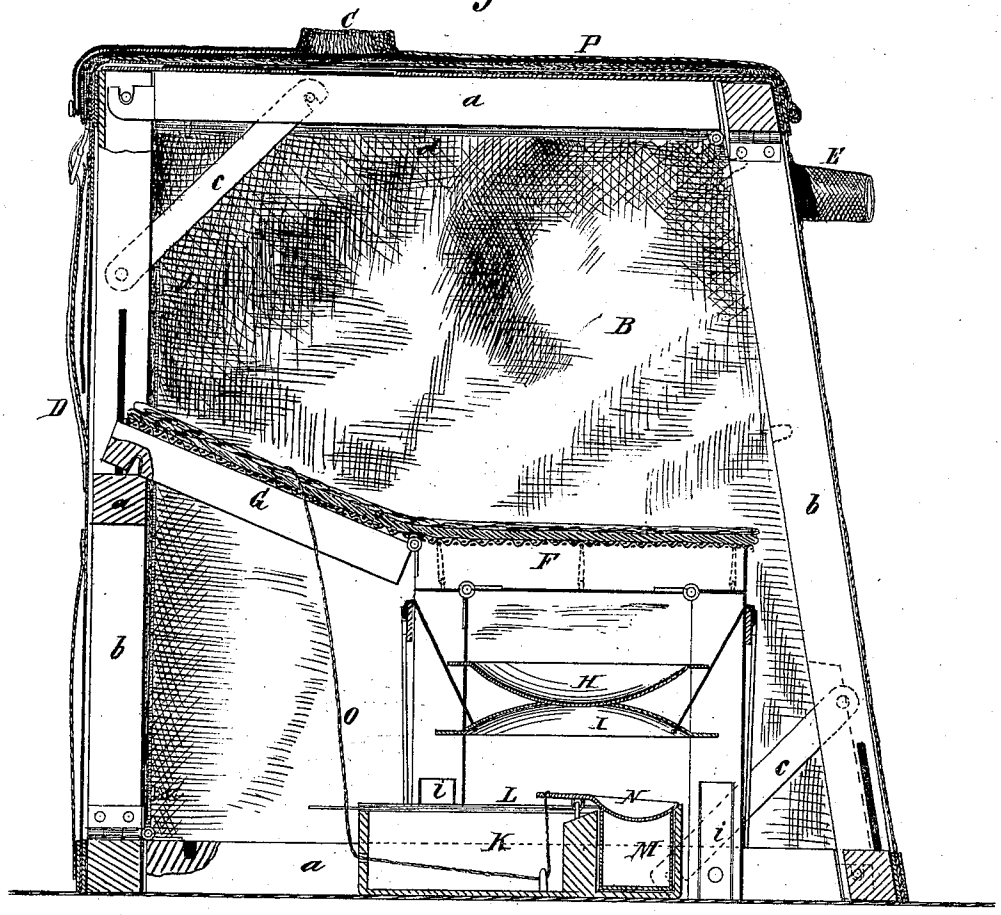
2 Sheets--Sheet 1.

S. A. MILLER, U. L. SHAFFER & J. BEAL.

Vapor-Baths.

No. 148,487. Patented March 10, 1874.

Fig. 1.



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2 Sheets--Sheet 2.

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No. 148,487. Patented March 10. 1874.

Fig. 2.

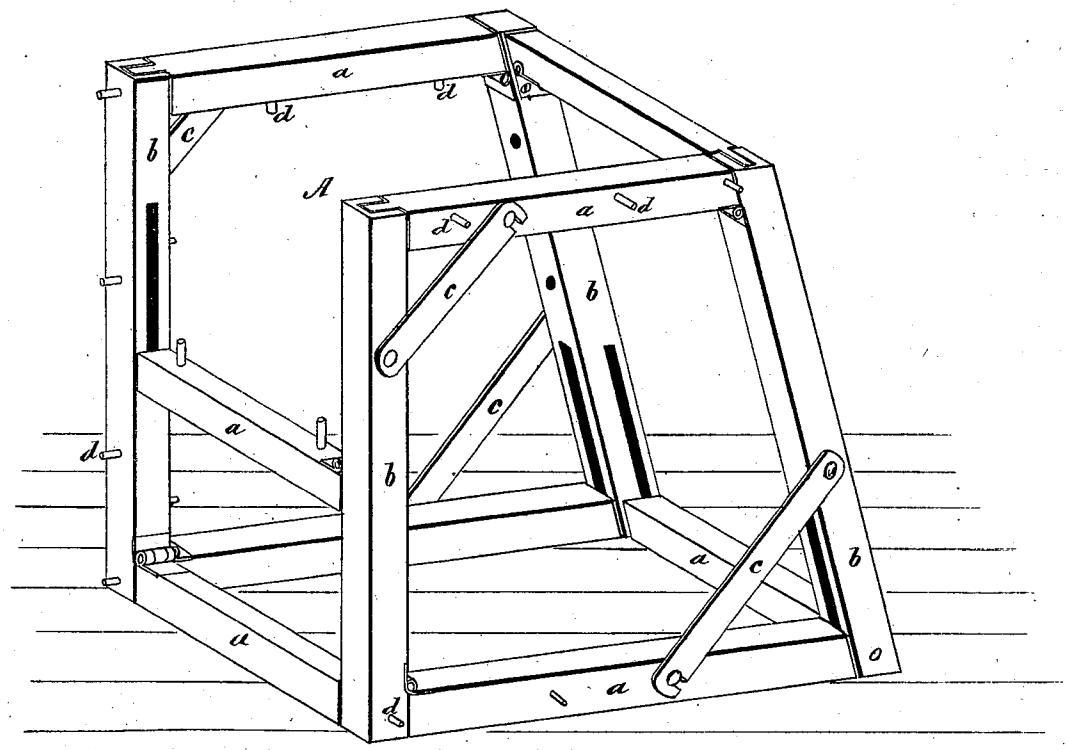
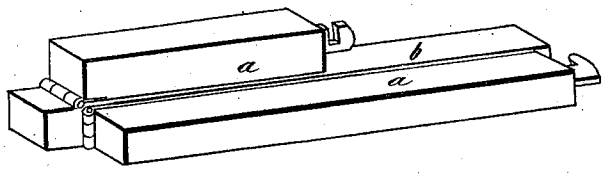


Fig. 3.



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UNITED STATES PATENT OFFICE.

SAMUEL A. MILLER, URIAH L. SHAFFER, AND JOHN BEAL, OF LEON, IOWA.

IMPROVEMENT IN VAPOR-BATHS.

Specification forming part of Letters Patent No. **148,487**, dated March 10, 1874; application filed February 7, 1874.

To all whom it may concern:

Be it known that we, SAMUEL A. MILLER, URIAH L. SHAFFER, and JOHN BEAL, of Leon, in the county of Decatur and State of Iowa, have invented a new and Improved Vapor-Bath; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1, Sheet 1, is a sectional elevation of the bath apparatus complete. Fig. 2, Sheet 2, is a view of the frame to which the cover is attached. Fig. 3, Sheet 2, shows, in perspective, one of the four hinged bar-sections which compose the frame.

Our invention has for its object to furnish a vapor-bath apparatus which shall be comparatively inexpensive, and capable of folding into very compact form, so as to occupy little space, and be conveniently handled or transported. To this end the frame is jointed and braced in a peculiar way, and covered with oil-cloth, enameled leather, or some equivalent material, which is made in sections or parts, and attached by means of pins, so that it may be readily applied to or removed from the frame. It may also be attached to the frame by straps and buckles. The folding chair or couch is constructed similarly to the frame, and connected to it by a hinged extension of its top portion. The heating apparatus is controlled by a damper, which is also used to hold the medicine to be vaporized.

In the drawing, the frame A is represented as rectangular at bottom and top, and vertical on all sides but one, which is oblique to its opposite. This is to give more space at the bottom, when required, and less at the top. The horizontal cross bars or pieces *a a a* are hinged to the other vertical bars or pieces *b b b* at one end, and connect with them at the other end by hooks, which catch over cross-pins, as shown. The diagonal bars *c c c* serve to brace the frame and keep it rigid, while holding its parts together at the joint. Thus the frame may be disjointed and the parts *a a a* all folded against the others, as shown in Fig. 3, so as to occupy a minimum amount of space, and be in condition for convenient handling or transportation in various ways. As a cover, B, for the frame, we employ any suitable kind of fabric, preferably enameled cloth. The same is made in one or more pieces, and provided with eyeleted holes to receive studs *d*, which are set in the frame-pieces conveniently for attaching and holding the cover in place. The cover has a hole at top, C, and in the vertical end D, through either of which the patient's head will project, according as he sits or reclines in the bath. A number of flaps or folding pieces are employed to exclude the air at the top by folding closely about the neck, over the shoulders of the patient. The hole in the end of the cover is closed by flaps, of which the outer one is secured by straps and buckles. A tube, E, serves to carry off the vapor from the bath subsequent to use. When in use, the tube may be closed by any convenient means. The patient reclines upon a chair, F, which is constructed upon the same principle as the bath-frame, of jointed bars and hook-ended braces. The same has a hinged extension, G, on which the patient is partly supported when reclining. A wire-gauze cover is secured to the chair by loops and stud-pins, so as to be readily detached when required. A very thin mattress of any suitable material is placed on this to receive the patient. The bars constituting the extension G rest at their free end on the end cross-bar of the frame, and are provided with holes to receive stud-pins, whereby the chair is held in a rigid position. To adapt the chair to persons of different heights, we provide sliding extensions *i* for the legs. The pan H is for holding water and herbs, or medicine also, if desired. It is supported beneath the couch by a conical sheet-metal plate, I, which is itself suspended by wires, and cut out at the center to allow the flame or heat free action on the bottom of the receptacle H, and its form is such as to deflect and distribute the surplus heat or heated air-currents, and thus equalize the effect thereof on the patient. The heating apparatus is a tray or box, K, provided with a top slide, L, and a holder, M, for the burning fluid, which is provided with a hinged damper, N. The degree of heat may be graduated to suit the needs or condition of the patient by the attendant, through the medium of a cord or wire, O, which connects with the lever-arm of the

damper N in such a way as to depress it, and thereby raise the damper more or less. The cord passes through a staple in the bottom of the box.

The medical substance to be heated and utilized in treating the patient, in connection with the steam or vapor generated from water in receptacle H, is placed in the damper N, which is made concave to form a pan or suitable holder therefor. Thus the device N is made to perform two functions. To allow of convenient insertion and removal of the box K from the inclosure of the bath, an opening of suitable size is formed below the opening for the head of the patient in the end portion of the cover, and folding flaps are provided for closing the same to exclude the air. A part of the cover B is readily detached from the studs to permit the patient to enter, and the cross-bars *a* and braces *c* are unhooked as easily and lowered for the same purpose.

When the patient sits erect in the bath, a cover, P, of suitable flexible material, is placed on the top of the box or bath, and secured thereto by an elastic band, which passes around the edge of the cover to exclude the air and prevent escape of steam. An elastic band also secures it about the neck of the patient.

As a whole, the bath is light, portable, and cheap, and when not in use may be folded into small space and packed away. It thus comes within the means and meets the necessities of a large class of persons, professionals and others, for which the ordinary vapor-baths are unadapted.

What we claim is—

1. The improved portable vapor-bath, formed by the combination of the folding frame, made of cross-bars *a*, vertical bars *b*, and braces *c*, having hinge and hook connections, and the cover B, made with flaps or sections, and attached to the frame by stud-pins, all as shown and described.

2. The cord or wire O and pivoted pan and damper N, combined with the fluid-burner receptacle, as shown and described, to operate as specified.

3. The combination of water-receptacle H and conical deflector I, as shown and described, for the purpose specified.

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