T. GALBRAITH.

Hot-Bath Apparatus.

No. 200,275. Patented Feb. 12, 1878.

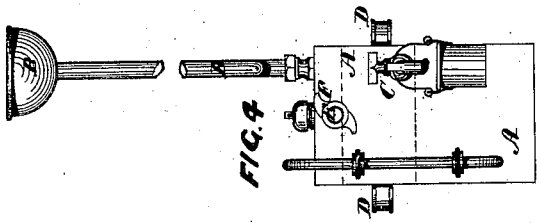

FIG. 4

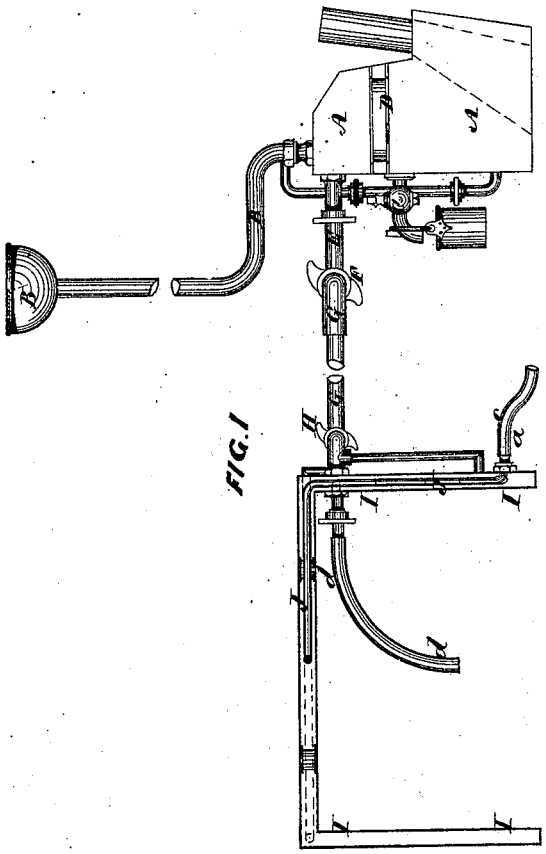

FIG. 1

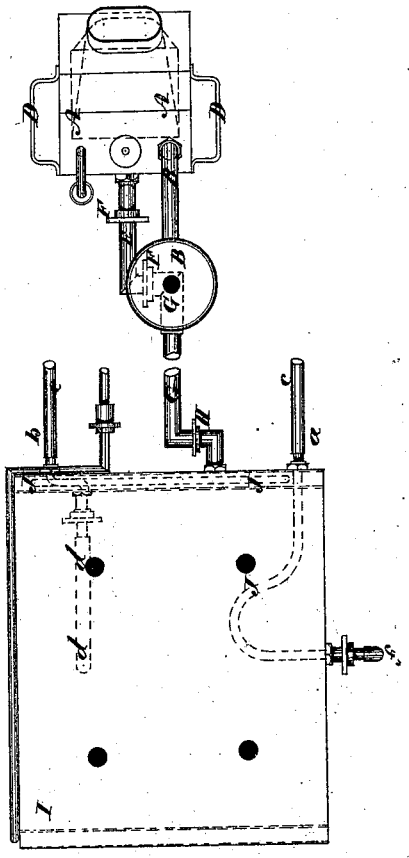

FIG. 2

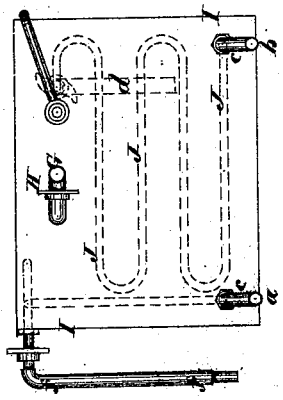

FIG. 3

Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS GALBRAITH, OF LONDONDERRY, IRELAND.

IMPROVEMENT IN HOT-BATH APPARATUS.

Specification forming part of Letters Patent No. **200,275**, dated February 12, 1878; application filed August 15, 1877.

To all whom it may concern:

Be it known that I, THOMAS GALBRAITH, of Crawford Square, in the town and county of Londonderry, Ireland, have invented a new and Improved Hot-Air Bath or Apparatus for the treatment of diseases of the human body, of which the following is a specification:

My invention relates to an improved construction of apparatus for applying hot air to the human body.

My improvement consists in combining, with a hollow casing forming three sides of a square, or of other suitable form, coils of pipe placed in the hollow casing, one end of each pipe being in connection with a bellows or other air-forcing apparatus, while their other ends communicate with the space inclosed by the three sides of the steam-chamber. The air, when passing through the coils within the steam-chamber, is heated to the desired extent. With the form of steam-chamber described, its three sides constitute three sides of the hot-air bath or chamber, the fourth side being the bed or couch whereon the patient is laid, and the ends of the said chamber are closed in with blankets or other covering, so as to prevent as much as possible the outward passage of the heated air, which is thus caused to act directly on the part of the patient's body under treatment, which is the part covered by the apparatus. The blankets or other covering may be so arranged as to cover or envelop the patient's whole body, when considered necessary; or the apparatus may be placed in a box and used as a box-bath.

The apparatus may be employed in the treatment of different diseases of male or female patients; but it is especially applicable for the treatment of the diseases incidental to females after child-birth, and all cases of recent or chronic congestion; and when internal application of heat is necessary, by the mouth or otherwise, a tube is connected to the exit-orifice of the hot-air coil required for that purpose.

In all cases where acids, gases, or any substances require to be injected internally, the necessary apparatus can be applied to the entrance or exit-orifice of the hot-air coil required for that purpose.

The steam, after passing through the steam-chamber, is conducted away from the apparatus by a pipe connected thereto, and drain-taps are also provided to draw off the water of condensation.

In the accompanying drawings, Figure 1 is a side view of my improved apparatus and an end view of the bath. Fig. 2 is a top view of the same. Fig. 3 is a side view of the bath facing the boiler, and Fig. 4 is a front view of the boiler.

In Figs. 1 and 2 the boiler is represented at A, and it is, by preference, so shaped as to admit of being easily placed in the hollow space over the ordinary house or bed-room fire-grate. The upper part of the boiler is provided with a pipe and filler, B, for admitting water to the boiler, the pipe being fitted with a coupling, (not shown in the drawings,) for convenience in packing. The feed-pipe, being always open to the atmosphere, acts as a safe-guard in case of the safety-valve getting out of order. The height of the water in the boiler is regulated by the tap or cock C, through which any water above the level of the cock C is drawn off. The height of the water in the boiler is at all times shown by the glass water-gage attached to it.

The boiler is provided at each side with a handle, D, for holding it when placing it on or taking it off the fire, or for otherwise moving it about. The boiler is also furnished with a safety-valve for preventing the steam from rising above a pressure of one pound per square inch. From the front part of the boiler a tubular branch, E, projects, and this is fitted with a union or other equivalent coupling, F, by which the pipe G is attached to the boiler.

The pipe G is also attached, by a similar coupling, H, to the hot-air bath I. In each case the joints F and H are such that they admit of the free motion of the pipe and the bath to the required position on the bed or couch for operating on a patient. The bath I consists of three sides, which are double cased, so that they inclose a hollow space, into which the steam from the boiler A passes. The water of condensation, which collects in this hollow space, is drawn off from time to time, as required, by a suitable cock or plug provided for the purpose in the lower part of the bath I. In the hollow space at one end of the bath I coils of pipe J are inclosed, and the outer or

lower end of each coil projects outside the lower part of the bath I, as shown at *a* and *b*, Figs. 1, 2, and 3.

A bellows or equivalent blowing apparatus, for generating a gentle blast of air, (not shown in the drawings,) forms part of the apparatus, and the nozzle or air-escape orifice of the blowing apparatus is connected, by the flexible pipe *c*, to either or both orifices *a* or *b*, as required, and this depends upon the treatment to which the patient is to be subjected, whether internal or external, or both.

If the abdominal parts of the patient are to be treated, then the flexible pipe conveying the air-blast is attached to that one of the orifices *b* which communicates with the discharge-orifice *d*, so that the air heated by the steam in the casing of the bath, as it passes through the coils of pipe therein, is discharged into the hollow of the bath, which, with the blankets by which the bath is covered, incloses the whole or part of the patient's body to be operated upon externally. If, on the other hand, internal treatment of the uterus or other part is to be applied, then the discharge-orifice *d* is fitted with a nozzle or mouth piece for that purpose.

The second discharge-orifice *f* is provided for the purpose of enabling a patient to inhale heated air, and, when so used, the flexible pipe *c* is coupled to the orifice *a*, which communicates with the discharge-orifice *f;* or, by means of the two receiving-orifices *a* and *b*, and two connections with the air-blast apparatus, a patient may be treated both internally and externally simultaneously by causing one discharge-orifice to send heated air into the space inclosed by the bath and the other to discharge internally into the patient.

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

The three-sided bath I, having hollow space for steam, and provided with an air-pipe within said space, as and for the purpose set forth.

In witness whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS GALBRAITH. [L. S.]

Witnesses:
JOHN CONN,
JOHN W. ADER.