No. 722,976. PATENTED MAR. 17, 1903.

F. W. HALL.

BATH AND FEVER MACHINE.

APPLICATION FILED SEPT. 30, 1901.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

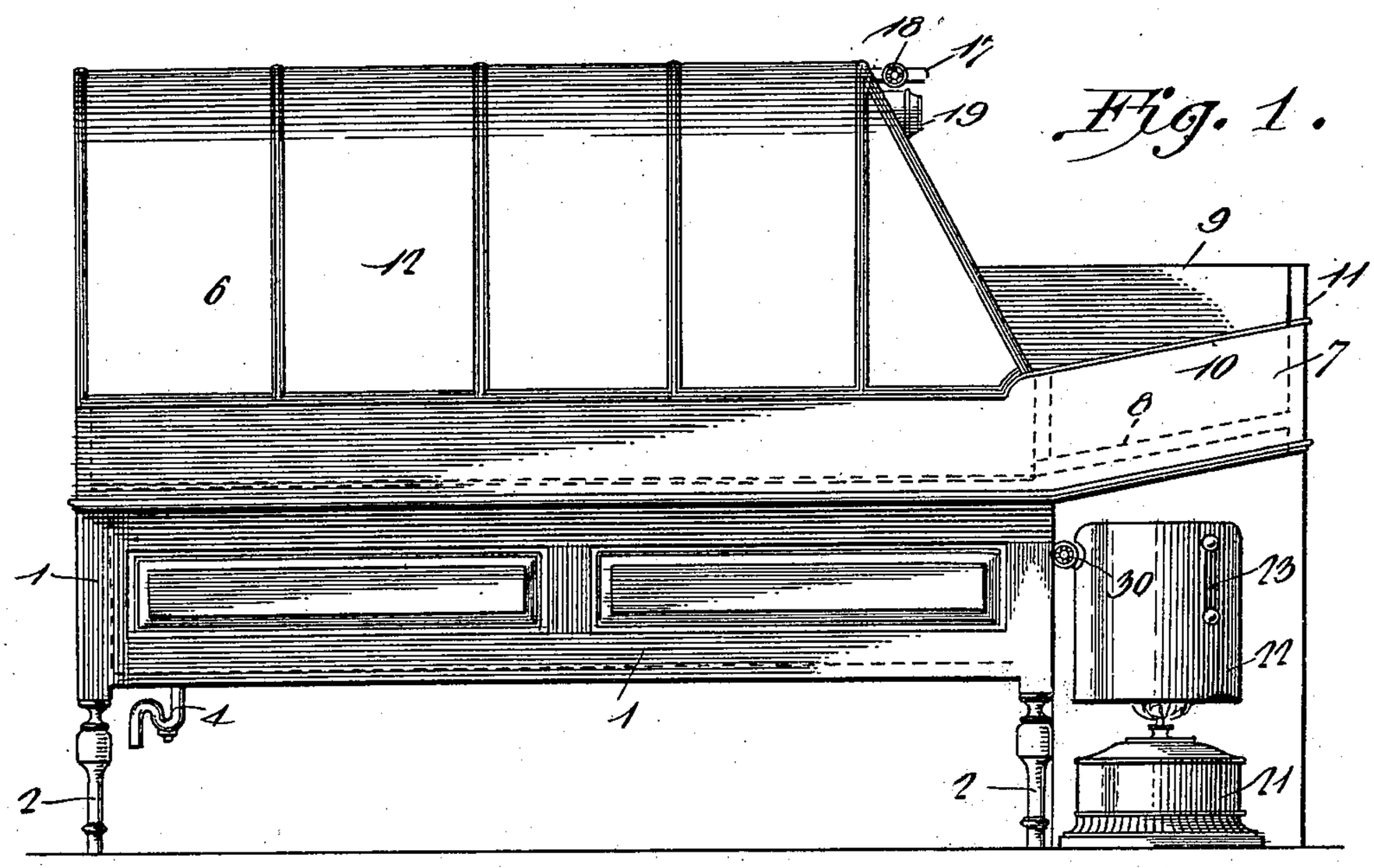


Fig. 2.

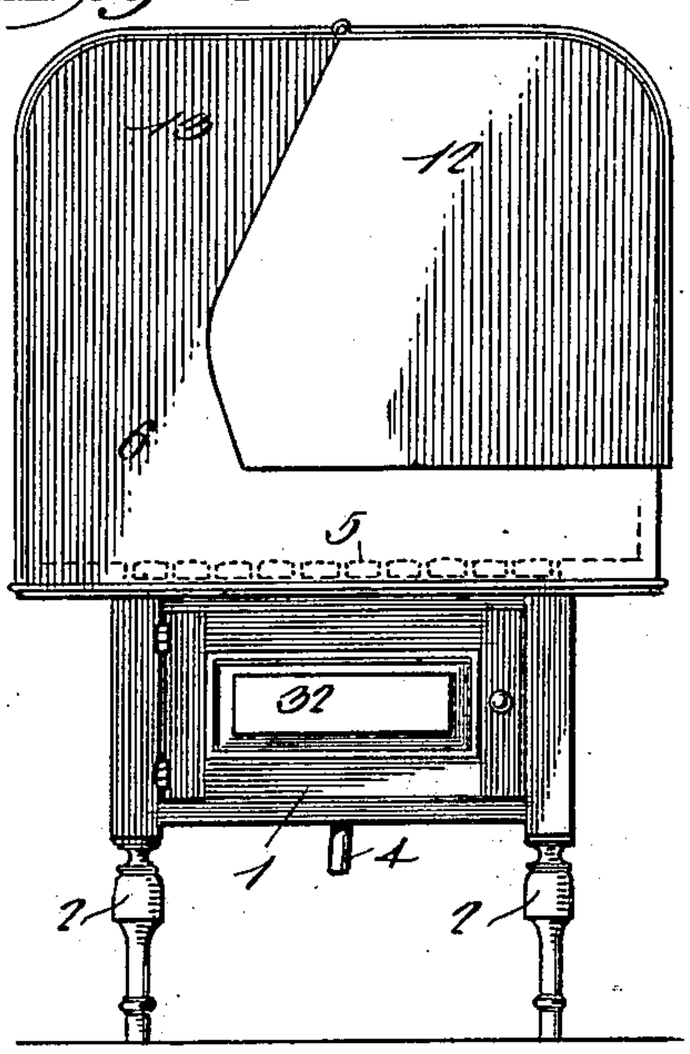
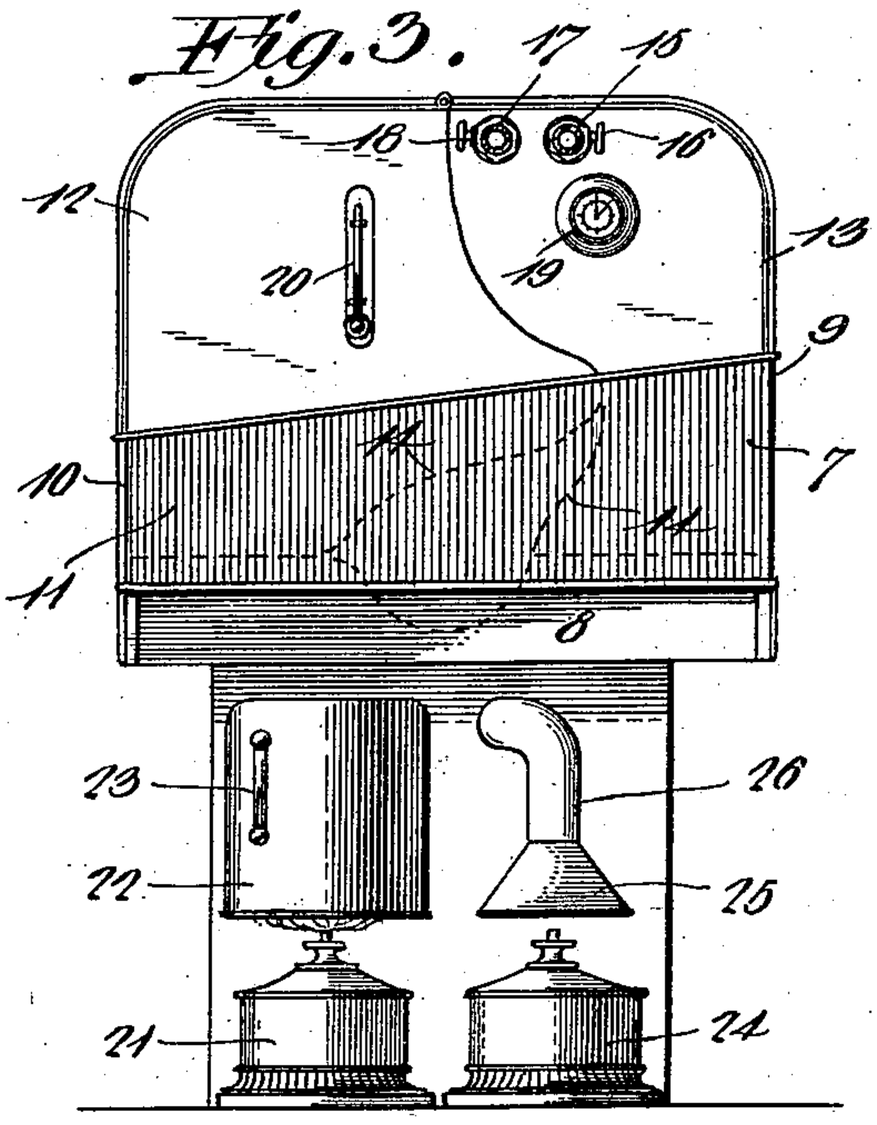


Fig. 3.



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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 4.

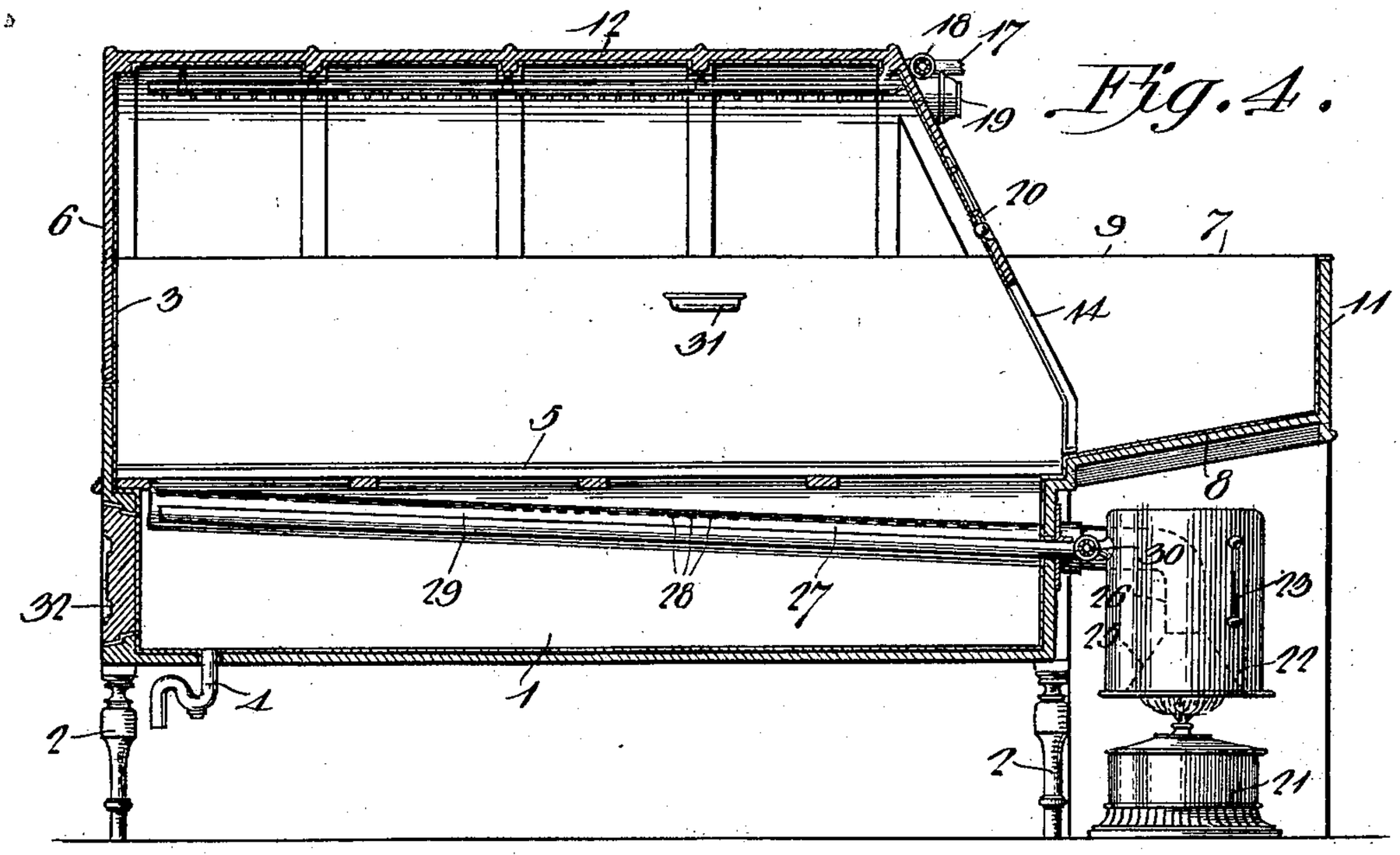
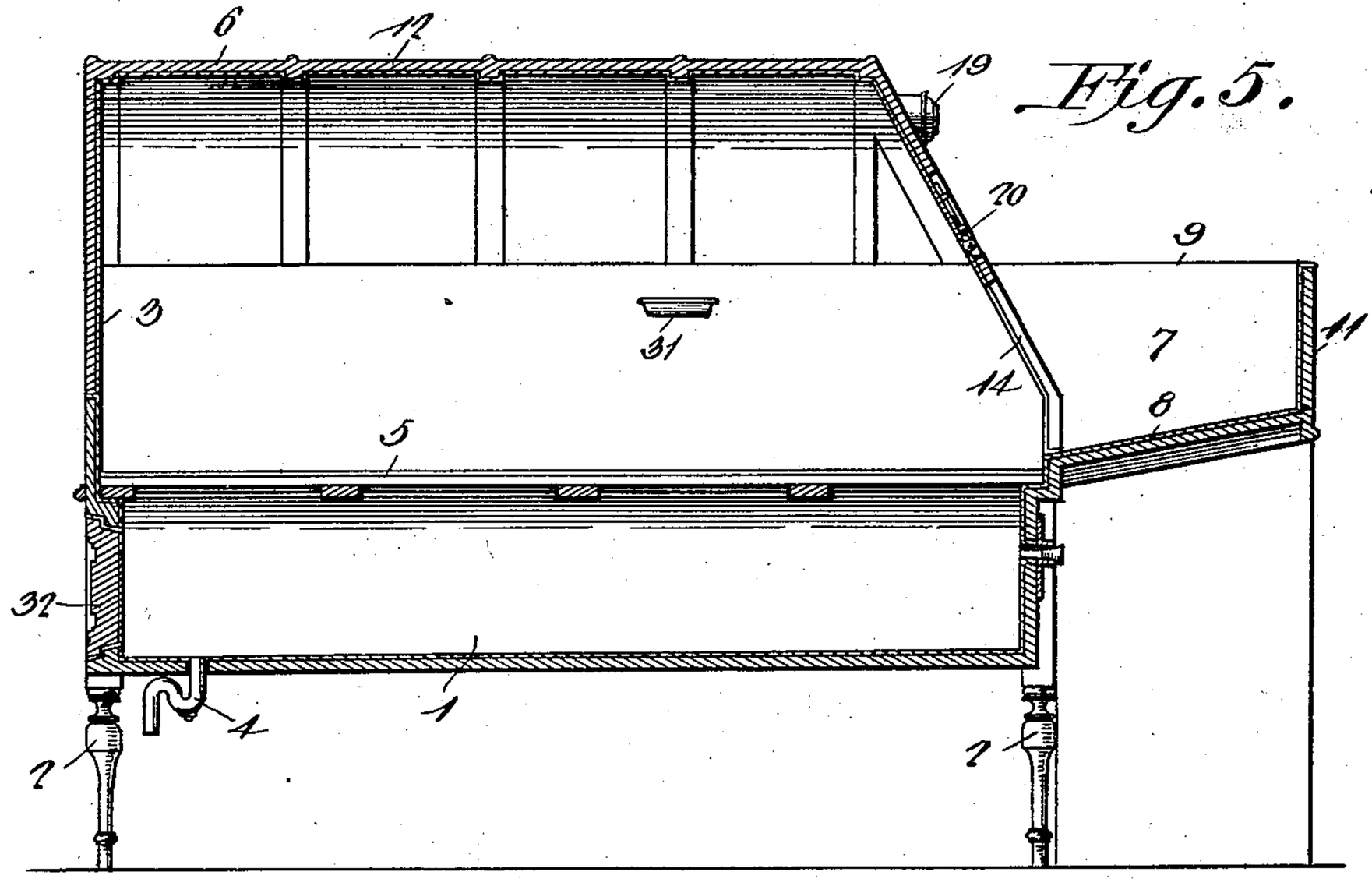


Fig. 5.



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UNITED STATES PATENT OFFICE.

FRANK W. HALL, OF INGLESIDE, GEORGIA.

BATH AND FEVER MACHINE.

SPECIFICATION forming part of Letters Patent No. 722,976, dated March 17, 1903.

Application filed September 30, 1901. Serial No. 77,131. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. HALL, a citizen of the United States, residing at Ingleside, in the county of Dekalb and State of Georgia, have invented a new and useful Bath and Fever Machine, of which the following is a specification.

This invention relates to a bath apparatus for use in administering Turkish, Russian, Turko-Prusso, needle, shower, ordinary vapor, or other baths, and also for treating fever patients to reduce the temperature of the latter, and also to permit other body applications and massage operations; and the aim and purpose of the improvement are to provide a light portable device adapted to be disposed in rooms or inclosures wherein patients are located or in hospitals and other places and readily and easily convertible from one use to another and including attachments and accessories to render the several operations successful with comfort to the patient treated, whereby the several benefits of the bath operations set forth and for which the apparatus is designed may be obtained at a minimum expense and without inconveniencing or endangering the patient treated.

The invention consists in the construction, arrangement, and combination of parts, which will be more fully hereinafter described and claimed, and capable of a wide range of modification in the shape, size, proportion, and minor details without departing from the principle involved.

In the drawings, Figure 1 is a side elevation of a bath apparatus embodying the features of the invention. Fig. 2 is a rear end elevation of the same. Fig. 3 is a front end elevation thereof. Fig. 4 is a longitudinal vertical section. Fig. 5 is a view similar to Fig. 4, showing parts removed to adapt the apparatus for a different use.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a box or inclosure of suitable dimensions and supported by legs 2, the said box being lined with nickel or tin plated sheet-copper 3 or otherwise constructed and lined and made water-tight on the bottom and at the sides and provided with an outlet and trap 4 adjacent to the rear end not unlike a common bath-tub. On the top of the box 1 a slatted cover or flooring 5 is disposed, as clearly shown by Fig. 2 in dotted lines, and over the slatted cover or flooring and the top portion of the box an inclosure 6 is arranged. The slatted cover or flooring 5 is made wider than the box to permit the inclosure 6 to be correspondingly widened to provide more room for carrying out the several operations for which the improved apparatus is designed. Continuous with the box 1 at the front end is a head-rest 7, having an upwardly-inclined bottom 8, opposite sides 9 and 10, and a front end 11, the said head rest or support being also lined with tin or nickel plated copper or otherwise constructed, and the side 10 is of less vertical height than the side 9.

The inclosure 6 is constructed of suitable material and provided with an upwardly-opening hinge-section 12, which extends the full longitudinal length of the inclosure and is connected by suitable hinges at the top of the inclosure, whereby the said section may be opened to provide an enlarged entrance and exit for the inclosure. The immovable or rigid portion 13 of the inclosure and the hinge-section 12 at the front ends of said devices are formed with cut-away portions 14, as shown by dotted lines in Fig. 3, to provide an opening to fit around the neck of a patient, the cut-away portion of the hinge-section 12 being so shaped as to clear the body of the patient when the said section is opened and closed. If this opening be larger than the portion of the body of the patient adjacent thereto, it will be suitably closed by the application of towels, cloths, or other suitable devices, so as to render the inclosure effective in carrying out the several operations for which it is designed.

In the top portion of the rigid part of the inclosure 6 and projecting through the front end thereof is a pipe 15, provided with a suitable valve 16, the said pipe being adapted to be connected with the hot and cold water system of a house or hospital, so as to administer water to a patient in the form of a cooling-bath or for washing a patient after taking the sweat. Adjacent to the pipe 15 is a second pipe 17, having a valve 18, the said pipe 17 being provided with the ordinary

means for administering a needle-bath and contains water under high pressure.

At the front end of the inclosure and in full view of the patient are a clock 19 and a thermometer 20, the latter having its bulb exposed to the interior of the inclosure, and by the provision of said devices a person is enabled to administer a bath to himself and time said bath with accuracy and also regulate the temperature as may be required.

Under the head-rest 7 is a suitable stove 21, adapted for using kerosene-oil as a fuel, though other fuel may be employed at will, and supported above the said stove is a boiler 22, supplied with a suitable water-gage 23. Adjacent to the stove 21 is another similar stove 24, which is disposed under a funnel 25, having a conduit 26 leading into the front end of the box 1 and continuing longitudinally through the latter at an upward inclination toward the rear end of the box in the form of a pipe 27, provided with a plurality of perforations 28. Extending through one end of the box from the upper portion of the boiler 22 and also disposed at an upward angle of inclination toward the rear end of the box is a steam-pipe 29, which is opened at its rear end and adapted to conduct the steam from the boiler into the box. Both pipes 27 and 29 will be provided with suitable valves, as at 30, located under the head-rest 7 and conveniently accessible to the person using the apparatus for bath purposes or to an attendant to regulate or control the entrance of hot air or steam, or both, into the apparatus. By inclining the pipes 27 and 29 in the manner set forth an uncomfortable heat sensation is removed from that portion of the body of the patient or person nearest the front end of the box where the greatest caloric exists, and by extending the said pipes to the rear end of the box and having their terminals near the under portion of the rear end of the cover or slatted flooring a more even temperature will be maintained throughout the length of the apparatus and the air or steam, or both, will be caused to pass more quickly upward through the said cover or slatted flooring. The pipes 27 and 29 are therefore arranged as close to the under side of the cover or slatted flooring as practicable, and during the several operations the hot air or steam, or both, may be permitted to continuously flow into the box and from the latter through the cover or slatted flooring or be controlled to have an intermittent flow, as the treatment may require.

Within the inclosure is a soap rest or rack 31, and other incidental accessories of this character will be provided where found necessary. The front end of the inclosure is inclined in a rearward direction to give the patient or person using the apparatus a better air circulation around the head and also permit the clock and thermometer to be readily seen.

Fig. 5 shows the pipes 27 and 29 removed from the box 1 and the device arranged for use by fever patients to reduce the temperature. While it is not absolutely necessary that the pipes 27 and 29 be detached or withdrawn from the box 1, yet it is proposed to have the pipes so attached that they may be readily disconnected, if desired, and Fig. 5 demonstrates this possibility. The rear end of the box is provided with a hinged door 32, which is suitably packed to form a tight joint when closed, and by means of said door access to the box may be readily had. For cooling fever patients it is proposed to introduce ice into the box 1 to reduce the temperature of the patients, or the same course can be pursued in reducing the inflammation of fevered injuries.

From the foregoing description it will be seen that the apparatus is equipped for carrying out various modes of treatment and that it is possible for a person to administer a bath to himself with perfect safety and without the assistance of an attendant.

Let it be supposed that a Turkish bath is to be administered and that there is an attendant who will light the stove, spread a sheet on the cover or slatted flooring 5, and otherwise arrange the apparatus for such bath. The patient disrobes and lies down on the sheet and is covered by the inclosure on the box. The several applications of steam and hot air, cold and hot water, and incidental rubbings may then be pursued and the several temperatures regulated at will. The patient will have full view of the thermometer and clock and can regulate the temperature from the reading of the thermometer and also the time he will remain in the bath, or the temperature and time may be wholly under the control of the attendant. The sweat-bath having been completed, the hinged section 12 is raised and the usual rubbing or massage treatment is pursued, and during the latter operation water is obtained from the cooling-pipe above for washing-off purposes. The needle-bath may then be set in operation, then the cooling and drying processes, and during such period the patient rests in an easy position on the cover or slatted flooring, which serves as a bed. After these operations an alcohol or vapor bath may be administered, and during the treatments set forth the patient is breathing the pure air of the room and can have ice-water to drink or applications of ice-water on his head and can take as good a Turkish bath as he could in an establishment fitted up for the purpose at a small cost or expense.

If it is desired to treat a fever patient, ice is placed within the box 1, and the patient lies on the slatted bed with his clothes on or in his robe and his fever will be reduced by the ice under his full control and absolutely without the unpleasant feature of being packed in ice and the usual wet sheets and bed, and during said operation should the patient become too cool the ice can be with-

drawn from the box and, if necessary, heat from the stove permitted to enter said box.

It is proposed to make the apparatus of any material, either wood or metal or a combination of both, and instead of using steam from the boiler set forth it may be supplied from any source about the premises, and likewise the hot air may be conveyed to the apparatus from a distance.

The apparatus is preferably portable, so that it may be moved from place to place, or it can be placed in a stationary position and attached to the water system of a house and also connect with a waste-pipe leading to a sewer, or at other times the waste water may be caused to run into a tub or bucket.

The improved apparatus will be found exceptionally useful and of great assistance in treating patients or for permitting bath administrations.

The door 32 may be located at either side of the box, this change being an obvious one.

Having thus described the invention, what is claimed as new is—

A bath apparatus comprising a suitably-supported box having a solid bottom and a slatted box, steam and hot-air pipes extending through the box and disposed at an angle with relation to the top thereof, the discharge ends of the pipes being closely disposed to the foot portion of the slatted top and gradually spaced away therefrom toward its top, thereby to cause an increase in the heat from the head of the patient to his feet, the hot-air pipe being provided with upward-discharging orifices, a two-part bath-chamber disposed over the top, one section of which is rigid, and hot and cold water pipes disposed in the top of the rigid section and provided with valves, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FRANK W. HALL.

Witnesses:
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G. B. ALMAND.