L. H. Lefebure,

Vapor Bath.

No. 17,102. Patented Apr. 21, 1857.

Fig: 1

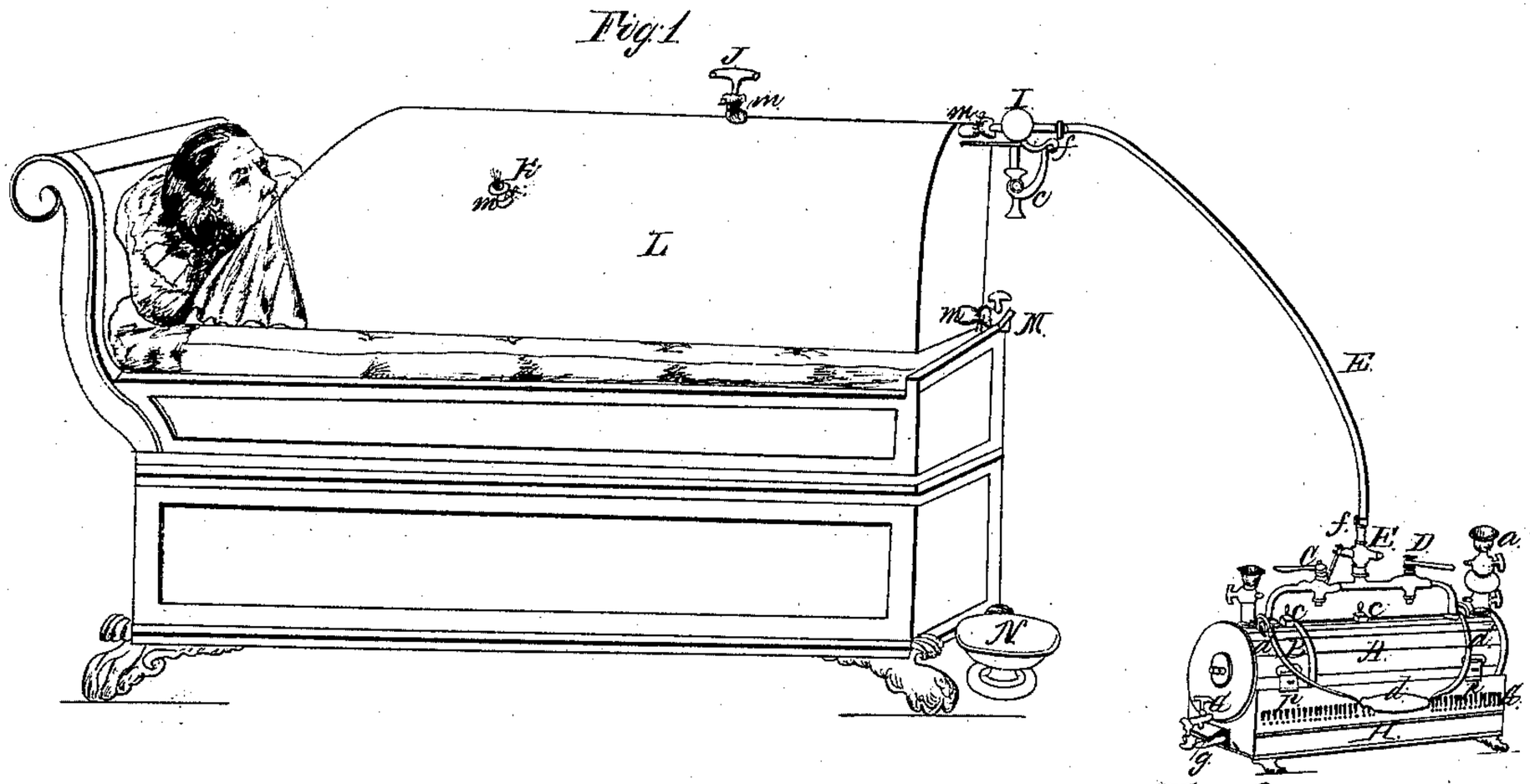


Fig: 2.

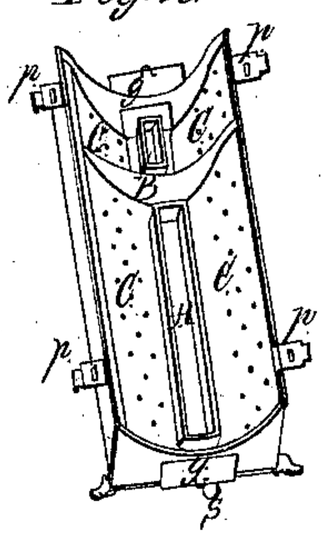


Fig: 3.

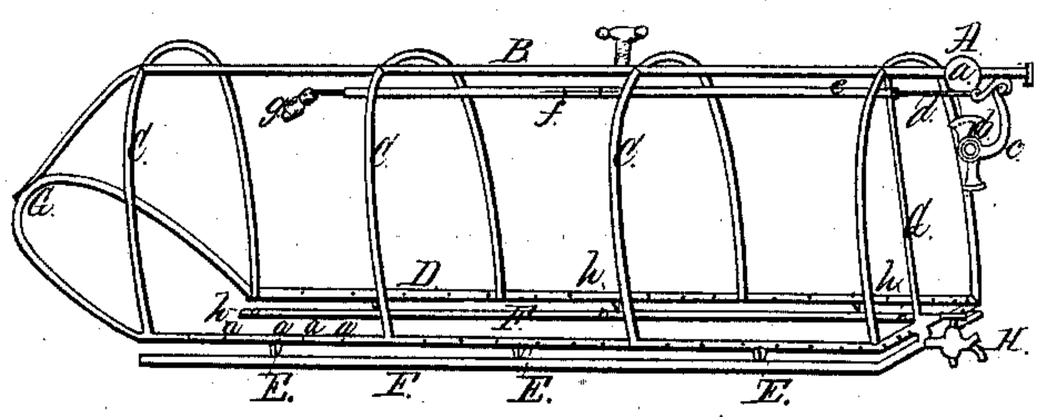


Fig: 4.

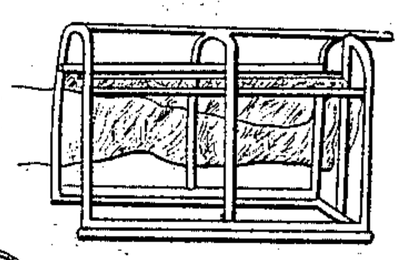


Fig: 5.

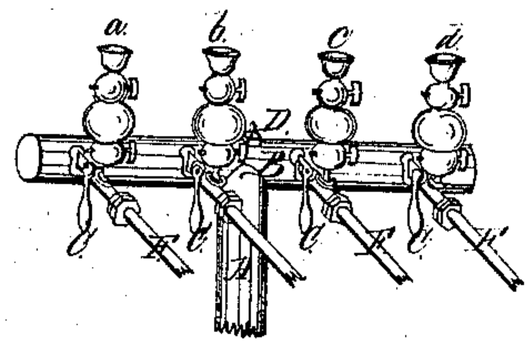
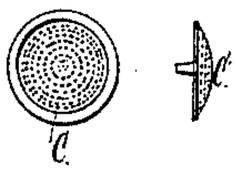


Fig: 6

Fig: 7.



UNITED STATES PATENT OFFICE.

L. H. LEFEBVRE, OF NEW ORLEANS, LOUISIANA.

BATHING APPARATUS.

Specification of Letters Patent No. 17,102, dated April 21, 1857.

To all whom it may concern:

Be it known that I, LOUIS H. LEFEBVRE, of New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Portable Vaporiferous Bath Apparatus; and I do hereby declare the following to be a full, clear, and exact description, reference being had to the annexed drawings, making part of the same.

Figure 1 represents a view in perspective of my improved apparatus complete with a person in the act of taking a bath. Fig. 2 is a perspective view of the heater removed from beneath the boiler showing its interior construction. Fig. 3 is a perspective view of the frame beneath which the patient is placed to receive a bath. Fig. 4 is a view in perspective of a frame of smaller dimensions for giving foot baths. Fig. 5 is a perspective view of a steam pipe with a number of branch pipes attached by which a number of baths and of different varieties may be administered at the same time. Fig. 6 is a view in perspective of a seat bath with one side of the chair removed to show its interior. Figs. 7–8 are views of one of the parts belonging to the seat bath removed.

The boiler (A) consists of a cylindrical vessel of any desired size and is divided into two compartments—the division (A) which constitutes about two thirds of its capacity is to generate the vapors of water and medicated substances, while the compartment (B) is to produce the vapors or gases of any corrosive materials desired. Water or medicated substances are introduced into the division (A) through the double funnel (*a*) which may be done while the boiler is filled with steam. The substance passes the first stop cock into the reservoir between the two, where it is confined, when the lower cock is opened permitting the substance to enter the boiler where it is immediately volatilized and conducted into the bath apparatus.

Corrosive substances are introduced into the compartment (B) through the funnel (*b*). The gases or vapors produced in the division (B) are governed by the cock (C) and the products of the division (A) are governed by the cock (D). To the center of the pipe to which the cocks (C, D) are fitted is arranged a cock (E) through which the products of the two divisions of the boiler are permitted to pass into the conducting pipe (F), thence into the bath; by this arrangement, simple steam-medicated and steam, together with the corrosive substances may be administered at the same time and in any desired proportions, or each may be given separately as may be necessary. (G) are cocks placed at the ends of the boiler to draw off the liquids when desired.

Safety valves (*c*) of ordinary construction may be arranged to the boiler if deemed necessary a detailed description of which is not required here.

H is a heater of the same length and upon which the boiler is placed. This heater is furnished with spirit lamps (B, A) by which the materials in the boiler are heated. The bottom (C) is perforated with small openings to create draft. The lamps (B, A), when the boiler is in position, may be introduced into the heater or withdrawn therefrom through doors (*g*). The loops (*p*) are for the purpose of attaching it to the boiler to render the whole portable without detaching any of the parts.

Fig. 3 represents the frame of the bathing apparatus which is constructed of metallic tubes and is of sufficient dimensions for a person to lie within it without coming in contact.

Vapors being introduced into the main or distributing pipe (B) through the connecting pipe (F), Fig. 1, pass down the branch or dividing pipes (*c*) and enter the subdividing pipes (D) at the lower sides of the frame. These pipes (D) are perforated on their upper surfaces with small openings (*a*) through which the vapors are introduced into the apparatus and in contact with the patient. Beneath these pipes (D) are placed condensing pipes (E) which receive the condensed vapors through the funnel shaped connections (E) and conducts them off through the stop cock (H) at the foot of the frame. These connecting pipes (E) are in the form of a funnel, so as to permit the passage of the condensed vapors, from the pipes (D), into the lower pipes (F), but to prevent the escape of the volatilized substances through those channels and force them to pass off through the openings (*a*) (into the bath) on the upper sides of said pipes (D).

(G), Fig. 3, are braces to support and strengthen the frame at the head.

(A) is a graduating cock through which

the vapors are introduced into the apparatus, and by which the condensation is passed off instead of being carried into the frame.

Above the cock and secured to the distributing pipe (B), and to which the connecting pipe (F) is also attached, is a condensing globe (*a*) into which the condensed vapors are collected and passed off through the cock as shown in Fig. 1. This graduating cock is provided with a jointed lever (*c*) by which it is operated to admit or close off the vapors from the bath. In order that baths may be taken without assistance, a rod (*d*) sliding in a tube (*e*) secured to the lower side of the distributing pipes (C), is attached to the jointed lever (*c*) at one end, while to its opposite end and near the head of the frame is secured a handle (*g*) by which the person within the apparatus may operate the cock, graduating with the greatest facility the amount of vapor introduced into the bath.

To confine the stroke of the rod (*d*) to its proper limits, a pin (*f*) sliding in a slot of the required length formed in the tube (*e*), is secured to the rod (*d*) by which the cock can never be turned to a point that would render it uncontrollable by the person within the bath. A dial and pointer (*b*) may be arranged to the cock so as to indicate the amount of vapor entering the bath in a given time.

The casing (L), Fig. 1, may be made of any suitable material to retain the vapors, in which are made proper openings for the various parts of the frame to be introduced. This casing is fitted to the frame—Fig. 3—and secured thereto by loops drawn over the buttons (*h*) on the inner sides of the pipes (F)—the casing (L) being secured to the frame the whole is placed upon the bed with the loose part at the head drawn closely about the neck of the patient—the connecting pipe (F) attached to the cock at (*f*) when the apparatus is in readiness to administer the bath as shown in Fig. 1.

A thermometer (*k*) may be inserted through the casing (L) to indicate the degree of temperature within the bath.

By this arrangement baths may be administered without removing the patient from the bed and by perforating the pipes (D) on their upper surfaces with small openings (*a*) and permitting the condensed vapors to pass off through funnel shaped connections (E) into the condensing pipes (F) directly beneath, baths are given leaving the bed in a perfectly dry state.

To administer baths without wetting the bed by the condensed vapors, and without removing the patient therefrom, is one of the most important features in my invention—for by this mode of giving baths, the patient is not subjected to a reaction from change of temperature by being removed from one bed to another, or changed from the warm clothes in which the bath was taken to cold ones—the bath being administered dry, the apparatus is removed and the patient remains in the warm bed and is supplied with covering sufficient to prevent sudden checking of the perspiration.

A modification of the single pipe may be arranged as shown in Fig. 5, branch pipes (F) Fig. 5 are attached to a distributing pipe (B) which is supplied with steam through the pipe (A) from a common boiler. *a*, *b*, *c*, *d* are double funnels through which medicated substances are introduced into the branch pipes (F) where they intermingle with the steam and conducted to the bath. (*c*) are stop-cocks attached to the branch pipes (F), by which steam from the distributing pipe (B) is introduced and governed. It will be seen that simple steam or medicated baths may be administered at pleasure, and any number at the same time—and different medicines may be used—the double funnels being placed upon the branch pipes (F) are entirely independent of each other.

Fig. 6 represents a modification of the bath in the form of a seat bath—the steam or vapor being introduced through the graduating cock (D), governed by the sliding rod, and may be operated by the patient as in the apparatus described in Fig. 1, where the bath is taken in a lying posture. This bath consists of a chair with the seat in the form of a box (F) an opening (*c'*) being made in its upper side over which the patient sits. Directly beneath this opening is placed a perforated diaphragm (*c*) into which the vapor is introduced through the pipe (B) and bottom of the box (F)—the vapor entering the diaphragm is diffused in small jets, through the perforations, into the box over which the patient is placed, the condensation passing into the globe (*i*) and permitted to escape as in Fig. 1, through the cock (D).

Steam or medicated vapor is introduced into the pipe (B) at (A) from a branch leading to the boiler, and may be regulated in volume by the cock (*s*) or entirely cut off at pleasure.

Having thus fully described my improved apparatus for administering vaporiferous baths, what I claim therein as new and desire to secure by Letters Patent is,

1. I claim, providing a portable frame and casing used to be placed over persons to administer baths, without removing them from their positions, when furnished with a graduating stop cock and reservoir (*a*) with the handle *j* extending with the frame and beneath the casing to enable the person taking the bath to operate the graduating cock, substantially as described.

2. Perforating the pipe or reservoir from

which the vapors issue into the bath on its upper side and placing beneath it a pipe or reservoir to receive the condensation—uniting said pipes or reservoirs by funnel shaped connections through which the condensed vapors may escape as described.

3. Distributing pipe (B) provided with double funnels and stop-cocks as described, for the introduction of medicated or other substances with the bath through the conducting pipes (F) substantially as herein set forth.

L. H. LEFEBVRE.

Witnesses:
WM. SINCLAIR,
JOHN M. FRENCH.