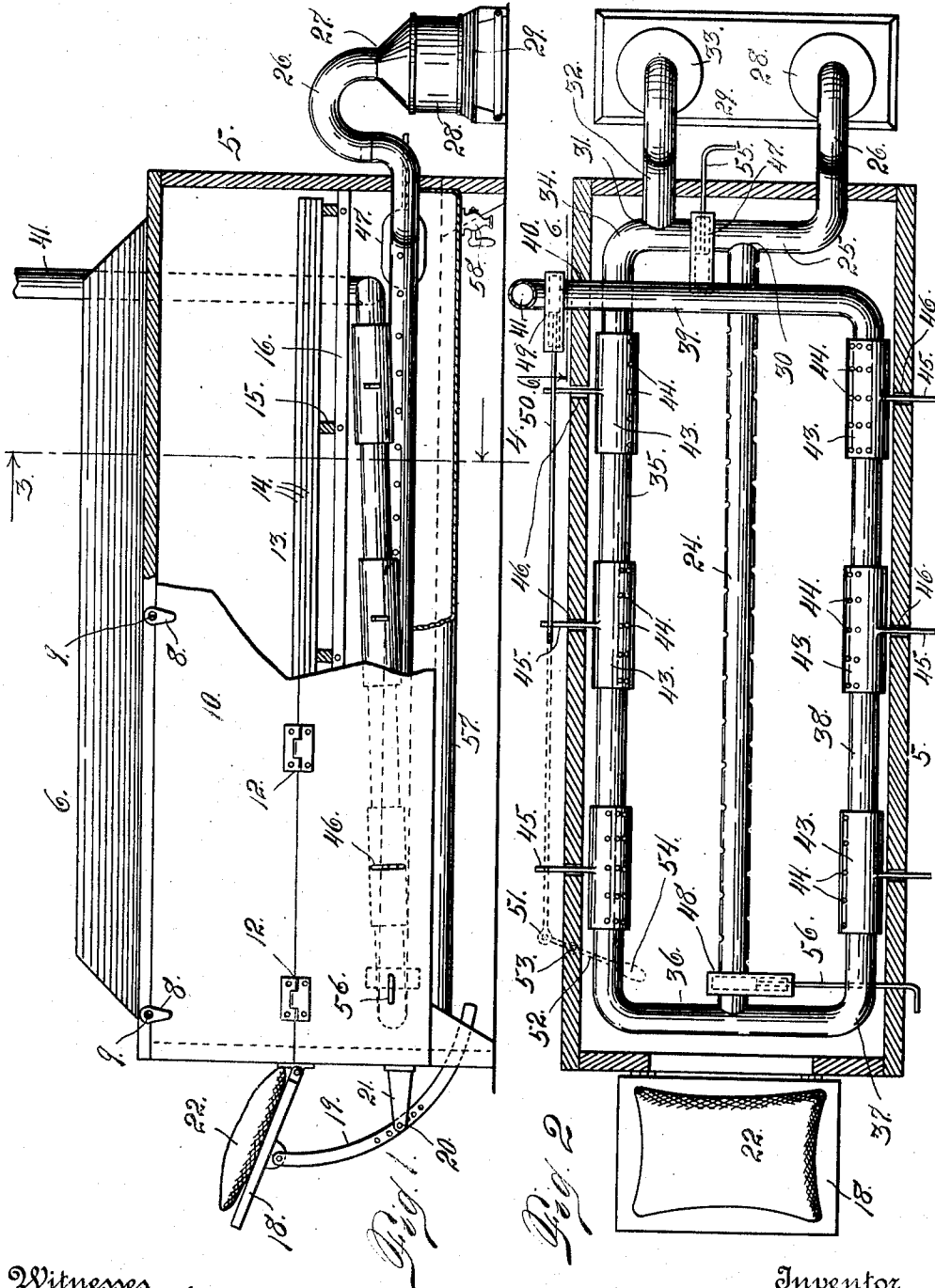


J. F. KRUSE.
 PORTABLE VAPOR BATH CABINET.
 APPLICATION FILED MAR. 1, 1912.

1,038,394.

Patented Sept. 10, 1912.

2 SHEETS—SHEET 1.



Witnesses
Otto E. Haddick
C. H. Rossmier

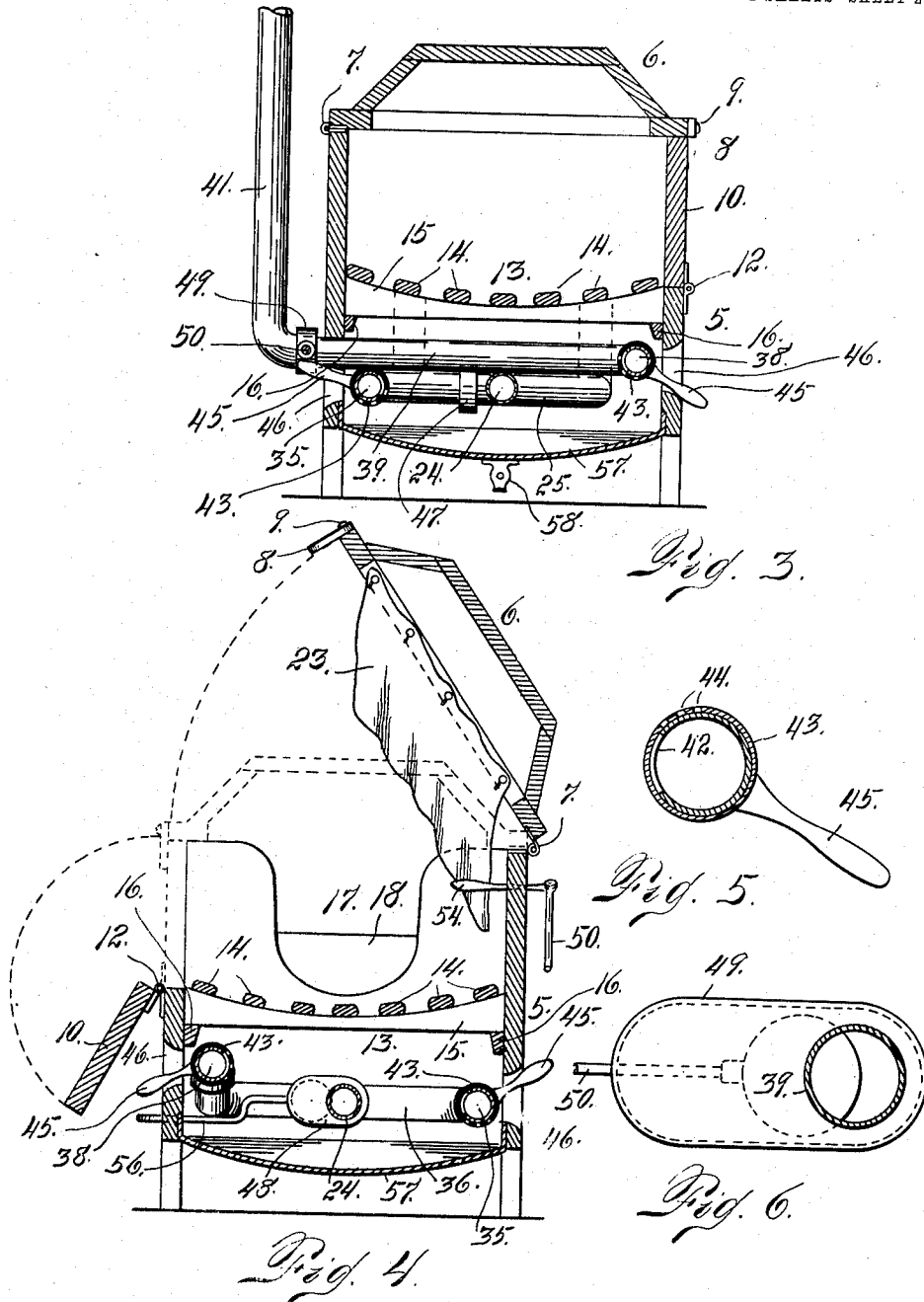
Inventor
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UNITED STATES PATENT OFFICE.

JOHN F. KRUSE, OF DENVER, COLORADO.

PORTABLE VAPOR-BATH CABINET.

1,038,394.

Specification of Letters Patent.

Patented Sept. 10, 1912.

Application filed March 1, 1912. Serial No. 680,795.

To all whom it may concern:

Be it known that I, JOHN F. KRUSE, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Portable Vapor-Bath Cabinets; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in portable vapor bath cabinets, my object being to provide a construction adapted to administer medicated vapor of any desired character to a patient occupying a suitable support in a closed cabinet, the said cabinet being suitably heated through the instrumentality of hot air, steam, or other vapor.

In my improved construction, provision is made for applying medicated vapor of any desired character, to the patient, the vapor being introduced to a perforated pipe through which it passes into the cabinet and is brought in direct contact with the body of the patient. At the same time, hot air or steam may be passed through a pipe suitably arranged for raising the temperature within the cabinet to the desired degree. Or, instead of using the second pipe for heating purposes exclusively, a medicated vapor of different character may be introduced to the second pipe and allowed to escape therefrom, whereby it is combined with the vapor which enters the first named pipe. In this way, any desired combination of vapors may be obtained. In the event that the second pipe is employed for administering vapor, provision is made for adjusting perforated sleeves mounted on the second pipe, whereby the vapor therefrom may be permitted to escape, whereas when said pipe is used for heating purposes alone the openings therefrom are closed, the only outlet being an exhaust pipe. This, however, when the second pipe is used for vapor purposes, is closed by a suitable cut-off valve.

In my improved cabinet is arranged a suitable support for the body of the patient, which is in a reclining position, one extremity of the cabinet, having an opening through which the head of the patient ex-

tends, a hinged head-rest being located outside whereby the head is entirely removed from the influence of the heat and vapor within the cabinet.

Having briefly outlined my improved construction, I will proceed to describe the same in detail, reference being made to the accompanying drawing, in which is illustrated an embodiment thereof.

In this drawing: Figure 1 is a side elevation partly in section, illustrating my improved vapor bath cabinet. Fig. 2 is a horizontal section taken through the same, below the support for the body and above the pipes employed for heating and vapor-administering purposes. Fig. 3 is a vertical cross-section of the cabinet, taken on the line 3—4 Fig. 1, looking toward the right. Fig. 4 is a view taken on the same line, looking toward the left, and with the top of the cabinet open, the closed position being indicated by dotted lines. In this view the hinged upper side member of the cabinet is also open. Fig. 5 is a cross-section taken through the pipe, cutting one of the sleeve valves or cut-offs, whereby the said pipe may be employed either for heating alone or for vapor administering purposes. In this view the parts are shown on a larger scale. Fig. 6 is a section taken on the line 6—6 Fig. 2, the parts being shown on a larger scale.

The same reference characters indicate the same parts in all of the views.

Let the numeral 5 designate a cabinet which is preferably composed of wood and of rectangular shape in horizontal section. This cabinet is provided with a top member 6, which is hinged to the upper edge of one side thereof, as shown at 7. This top member, when in the closed position, is secured in place by means of buttons 8, which are pivotally connected with the top adjacent the side as shown at 9. These pivoted buttons engage a member 10 forming a part of the front wall of the cabinet, this member being hinged as shown at 12, whereby when the top member is raised the hinged side member 10 may be opened or let down as shown in Fig. 4, to allow the patient to enter the cabinet. This hinged member 10 has a width equal to about one-half the depth of the side wall of the cabinet.

Arranged about midway of the height of the cabinet on the inside is a sort of rack 13 composed of longitudinally arranged slats

or bars 14 which rest upon transversely arranged parts 15, the latter being supported by strips or cleats 16, which are attached to the side walls of the cabinet on the inside and form the support for the opposite ends of the parts 15. This body-support 13 is curved slightly in a transverse direction to cause it to harmonize to some extent with the curvature of the body, though it is evident that the invention is not limited to any particular shape for this member. The support 13 extends practically the entire width and length of the cabinet and is so arranged that when the side member 10 is open or let down to the position shown in Fig. 4, a person may easily enter the cabinet and occupy a position upon the body-support 13.

At one end of the cabinet and adjacent to the body-support is an opening 17 of sufficient size to allow the patient to pass his head therethrough. Just beyond this opening in the end of the cabinet and hinged to the outside thereof, is a head rest 18, which is supported by means of a curved bar 19, arranged to allow the head of the patient to occupy any desired degree of inclination. The supporting bar 19 is held in the proper position of adjustment by means of a pin 20 passing through registering openings in a projection 21 and the bar 19. This bar is provided with a series of these openings for purposes of adjustment. As illustrated in the drawing, the head rest 18 is provided with a cushion or pillow 22.

The end of the top member of the cabinet adjacent to the head rest is provided with a sort of apron 23, which, when the top member is closed, hangs down in front of the patient and closes the opening between the patient's head and the interior of the cabinet, except so far as may be necessary to make room for the neck. In other words, the object of this apron is to prevent the heat and vapor from the interior of the cabinet from escaping. This apron is detachably connected with the top member of the cabinet whereby it may be readily removed for cleansing purposes.

Arranged within the cabinet and below the body-support are pipes which may be employed for vapor administering purposes and for heating purposes, or for vapor administering purposes alone, as may be desired. This pipe structure consists of a perforated pipe member 24, extending lengthwise of the cabinet and centrally arranged beneath the body-support 13. This perforated pipe member communicates at one extremity with a transverse pipe member 25, which merges at one extremity into an upwardly curved part 26, communicating at 27 with a receptacle 28, mounted on a stove or suitable heating device 29 of any desired character. The receptacle 28 is used for producing

medicated vapor of any desired character. This part of the structure may be of any suitable form or kind, and as nothing is claimed thereon in this application, it is not illustrated and will not be described in detail.

The vapor passes from the receptacle 28 through the pipe members 26 and 25 to the perforated pipe 24. The pipe member 25 extends beyond its junction 30 with the pipe member 24 and forms a union at 31 with the pipe member 32 leading from a receptacle 33 also mounted on the stove or heater 29, whereby hot air, steam or vapor of any desired character may be introduced to the pipe member 25. Beyond the member 32, the member 25 merges by a bend 34 into a longitudinally disposed pipe member 35, which extends lengthwise of the cabinet and close to one side thereof, merging at the opposite extremity from the heater into a transverse member 36, which extends to the opposite side of the cabinet and merges by a bend 37 into a pipe member 38, occupying a position parallel with the member 35 and on the opposite side of the cabinet. The member 38 merges at the heater end of the cabinet into a transversely arranged member 39 which passes out of the cabinet through an opening 40 in one side thereof and merges into an upright pipe member 41, for exhaust purposes.

The two members 35 and 38 are provided with openings 42, which, when the said members, together with their end connections, are employed for heating purposes alone, are normally closed by sleeves 43, which are perforated as shown at 44 and rotatably adjustable on the pipe members through the instrumentality of arms which extend through narrow slots formed in the side walls of the cabinet whereby the sleeves may be manipulated from the outside of the latter. As shown in the drawing, each of these sleeves is provided with three rows of perforations 44. When the openings 42 are closed the sleeves are in the position illustrated in Fig. 5 in which all of the perforations 44 are out of register with the opening 42, the latter being of sufficient width to accommodate three rows of openings 44 when the sleeve valve is properly adjusted.

When the pipe members 35 and 38 and their end connections are employed for heating purposes alone, either through the medium of steam or hot air, the sleeve valves 43 are all closed or adjusted as shown in Fig. 5, to cut off communication between the pipe members 35 and 38 and the interior of the cabinet. In this event a cut-off valve 47 located between the juncture 30 and the juncture 31 where the pipes 24 and 32 join the pipe 25, is closed, whereby the vapor from the receptacle 28 is com-

5 pelled to pass directly to the perforated pipe
 24. At the same time a cut-off valve 48,
 located at the extremity of the pipe 24 ad-
 jacent the transverse pipe member 36, is
 also closed, while a similar valve 49 may
 10 be opened to allow the steam, for instance,
 passing through the pipe members 35 and
 38 and their connections to exhaust through
 the upright pipe member 41 located outside
 of the cabinet. Under these circumstances
 the medicated vapor will leave the recepta-
 cle 28, enter the perforated pipe 24, and
 15 pass therefrom into the cabinet and into
 contact with the body of the patient; while
 at the same time the cabinet will be heated
 to the desired degree through the instru-
 mentality of the fluid passing through the
 pipe members 35 and 38 and their connec-
 20 tions. Again, if it should be desired to em-
 ploy two different kinds of vapor, one gen-
 erated in the receptacle 28 and the other
 generated in the receptacle 33, the valve 49
 should be closed while the valves 47 and 48
 may also be closed. At the same time the
 25 sleeve valves 43 must be so adjusted as to
 bring their perforations 44 into register with
 the openings 42 of the pipe members 35 and
 38. Under these circumstances one form of
 medicated vapor will enter the perforated
 30 pipe member 24 while the other form will
 enter the two perforated pipe members 35
 and 38, and together with the vapor in the
 pipe 24, enter the cabinet where they will be
 combined and brought into actual contact
 35 with the body of the patient. If desired
 the valve 49 may be opened for the purpose
 of reducing the degree of heat in the cabi-
 net or to permit the escape of a portion of
 the vapor.

40 In order that the valve 49 for controlling
 the exhaust from the pipe members 35 and
 38, may be under the control of the patient,
 this valve is equipped with a relatively long
 stem 50, whose extremity remote from the
 45 valve is pivotally connected as shown at
 51 with a lever 52, which is fulcrumed in
 the wall of the cabinet as shown in 53,
 one arm of the lever extending into the cabi-
 net, within reach of the patient as shown
 50 in 54. The two valves 47 and 48 have oper-
 ating stems 55 and 56 respectively, which
 pass through openings formed in the wall
 of the cabinet and are capable of being
 manipulated from the outside thereof.

55 From the foregoing description the use
 of my improved cabinet will be readily un-
 derstood. Assuming that the cabinet is open
 as illustrated in full lines in Fig. 4—that
 is to say, with the top member 6 raised
 60 and the hinged side member 10 lowered, the
 patient enters from the open side and as-
 sumes a position upon the support 13 with
 his head extending beyond the body of the
 cabinet and resting upon the pillow 22 of the
 65 head rest 18. The cabinet is then closed,

the side member 10 being first raised and
 the top lowered so that the two parts shall
 occupy the dotted line position in Fig. 4.
 The buttons 8 connected with the top mem-
 ber as heretofore explained, are adjusted
 70 to hold the hinged member 10 in the closed
 position. At the same time the apron 23
 closes the opening 7, with the exception of
 the necessary space for the neck of the
 patient. The vapor is then turned on either
 75 through the pipe 24 alone or in combination
 with the pipe members 35 and 38 and their
 connections, and the patient is subjected to
 treatment for the desired length of time.
 The bottom 57 of the cabinet is curved down-
 80 wardly and slightly inclined from its for-
 ward extremity toward the rear, to allow
 any drip or condensed vapor to flow toward
 an outlet valve 58, which may be opened
 at suitable intervals for draining the cabi-
 85 net. Furthermore, if desired, two different
 kinds of medicated vapor emanating from
 the receptacles 28 and 33 respectively, may
 be commingled in the perforated pipe 24
 by leaving the sleeve valves 43 of the pipe
 90 members 35 and 38 closed, whereby the
 vapor which enters the side pipe members
 must pass into the perforated pipe 24, as
 well as the vapor from the receptacle 28.
 In this event the valve 48 must be open to
 95 allow free communication between the three
 pipe members 24, 35 and 38. When the
 apparatus is used in this manner, the valve
 47 should be closed in order to compel the
 vapor to follow the course of the pipe 35.
 100 Still another use would consist in leaving
 the sleeve valves 43 closed on the pipe mem-
 ber 35, while they are left open to allow
 the vapor to escape from the pipe 38. In
 this event, medicated or other vapor from
 105 the receptacle 33 would pass from the pipe
 35, a portion of it entering the perforated
 pipe 34 and another portion entering pipe
 member 38.

From the foregoing it will be understood
 110 that my improved construction is capable
 of a considerable range of use, giving the
 patient every possible advantage of any de-
 sired combination or commingling of medi-
 cated or other vapors.

Having thus described my invention, what
 I claim is:

1. A vapor bath cabinet apparatus com-
 115 prising a box having a pipe construction
 comprising a centrally located perforated
 member extending lengthwise of the cabi-
 net, two pipe members arranged parallel
 120 with the first named pipe member and lo-
 cated on opposite sides thereof, the said
 last named members having openings, means
 125 mounted thereon and operable from the out-
 side of the cabinet for controlling said open-
 ings, the last named pipe members being
 connected by a transverse member and in
 communication with an exhaust extending 130

outside the cabinet, and means for supplying fluid to the perforated pipe member, and separate means for supplying fluid to the other pipe members substantially as described.

2. A vapor bath cabinet, comprising a box having a body support within the box, three pipe members arranged below the body support and in parallel relation with each other, one of the said pipe members having uncovered perforations while the other members are provided with openings controlled by sleeve valves mounted thereon and means for supplying the medicated vapor to the perforated pipe member and distinct means for supplying fluid to the other pipe members, substantially as described.

3. In a vapor bath cabinet, a body support located within the cabinet, three pipe members arranged below the body support and in parallel relation with each other, one of said pipe members having uncovered perforations, while the other pipe members are provided with openings controlled by valves mounted thereon and operable from the outside of the cabinet, means for supplying medicated vapor to the perforated pipe member and distinct means for supplying fluid to the other pipe members, the said pipe members being in communication with one another, and suitable means for cutting off communication between the perforated pipe member and the other pipe members substantially as described.

4. A vapor bath cabinet comprising a box having a body-support arranged lengthwise of the box, and perforated pipes arranged below the body-support and in communication with each other, one of said pipes having uncovered perforations, while the other pipes are equipped with valves for controlling the perforations, means for cutting off communication between the one perforated pipe and

the valve-controlled pipes, a source of fluid supply connected with the first named pipe, and a distinct source of fluid supply connected with the other pipes, substantially as described.

5. A vapor bath cabinet, including a box, a body-support arranged therein, and a pipe system located in the box below the body-support and composed of perforated pipe members, a portion of said system having the perforations constantly open, and another portion having valves for controlling its perforations, and two sources of fluid supply respectively connected with the two portions of the pipe system, substantially as described.

6. A vapor bath cabinet comprising a box, a body-support arranged therein and a perforated pipe system arranged below the body-support, the said system being composed of two portions normally in communication with each other, means for cutting off communication between the two pipe portions of the system, and means for introducing fluid of different character to the respective pipe portions of the system, substantially as described.

7. A vapor bath cabinet comprising a box, a body-support arranged lengthwise of the box, a perforated pipe system arranged below the body-support, a portion of said system having unobstructed perforations, while another portion is equipped with sleeve valves for controlling the perforations, and means for supplying fluid independently to the two pipe portions of the system, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN F. KRUSE.

Witnesses:

A. J. O'BRIEN,
F. E. BOWEN.