

D. KELLY.

COMPRESSED AIR BATH APPARATUS.

No. 179,414.

Patented July 4, 1876.

Fig. 1.

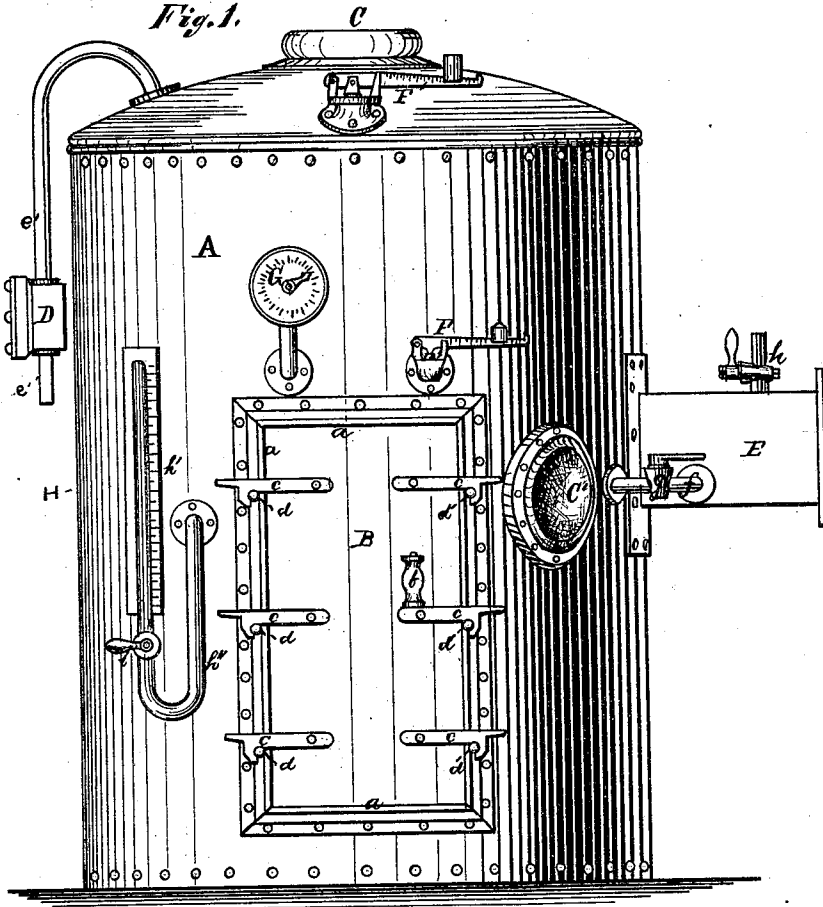
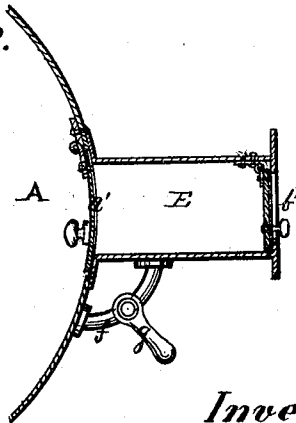


Fig. 2.



Witnesses:

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DANIEL KELLY, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN COMPRESSED-AIR BATH APPARATUS.

Specification forming part of Letters Patent No. **179,414**, dated July 4, 1876; application filed November 24, 1875.

To all whom it may concern:

Be it known that I, DANIEL KELLY, of Chicago, county of Cook, in the State of Illinois, have invented an Improved Compressed-Air Bath Apparatus, of which the following is a specification, reference being had to the accompanying drawings, forming part hereof.

My invention consists in a metal chamber capable of containing one or more persons, and provided with a door for ingress and egress, which door opens inwardly, and is closed by hooks, as described, and is furnished with an elastic flange at its points of contact with the chamber, the said chamber being also provided with glazed openings for the admission of light, and having arranged in connection with it a tank, through which the air may be passed and medicated or saturated with any substance by the action of an air-pump, and also having an opening arranged to be opened and closed, as hereinafter described, without disturbing the degree of pressure of air in the chamber, whereby food or other articles may be passed from the outside to the occupants of the chamber, and also provided with suitable pressure-gages and safety-valves, as hereinafter set forth.

Figure 1 is a front elevation of a compressed-air bath apparatus embodying my invention. Fig. 2 is a plan in section of the device, in connection with the chamber for the passing of articles from the exterior to the interior of the chamber, without altering or disturbing the degree of pressure in the chamber.

A is the chamber, which is preferably of wrought-iron riveted together at the seams, as shown. This chamber is preferably made large enough to contain two or more persons at the same time, and should be of sufficient strength to hold the compressed air, at desired pressure, without collapsing. B is the door hung on hinges on the inside of the chamber, and arranged to open inwardly. It is provided with a rubber flange, *a*, around its edges, which acts as a packing to prevent the escape of the air from the interior when the door is closed. The door has a handle or knob, *b*, and is secured when closed by means of the latch-hooks *c*, which engage with buttons or pins *d* set in the jamb of the door on the exterior of the tank. The latch-hooks are hinged

or pivoted, as shown, so that when it is desired to open the door they may be swung out of the way of the jamb. The surface of the door extends beyond the line of the jamb, on all its sides, and thus, when the pressure of the air on the interior of the chamber is increased above that of the surrounding atmosphere, the door is tightly pressed against the jamb, and thus kept tightly closed, and the escape of the contained air prevented. C and C' are glazed openings, one arranged in the top, and another in the side wall, of the chamber, whereby light is admitted to the interior. D is a tank, arranged preferably on the exterior of the chamber, into which the pipe *e*, to which the air-pump is attached, opens, and from which the pipe *e'* leads to the chamber, as shown. The air forced into the chamber thus passes through this tank D, and by placing the desired compound or substance in the tank D the air will become saturated or impregnated with such substance. By this means the compressed air may be medicated or filled with moisture. E is a box or closet, preferably of metal, riveted upon the exterior of the wall of the chamber, as shown, and with an opening through into the chamber, provided with a flanged hinged door, *a'*, opening inwardly into the chamber, and with a flanged hinged door, *b'*, closing the opening at its outer end, as shown. These doors are provided with rubber flange-packings, similar to that described for the door B. The interior of the chamber A is connected with the interior of box E by the pipe *f*, which has in it the cock or valve *g*, and an escape cock or valve, *h*, is placed in the upper wall of the box E, as shown. By means of these devices, when it is desired to pass food or water, or other articles, from the exterior to the interior of the chamber A, without altering or disturbing the degree of pressure maintained in the said chamber, the door *b'* may be opened and the desired articles placed in the box E, and the door *b'* then closed. The escape-cock *h* being closed, the cock or valve *g* is opened, when the pressure of the air will be equalized on both sides of the door *a'*, the air from the chamber A passing into the box E through the pipe *f*. The door *a'* may now be opened from the interior of the chamber A, and the articles removed from the box. To pass ar-

ticles out from the chamber this operation is reversed. The door *a'* is closed and the valve *g* is shut, when, by opening the escape-cock *h*, the pressure on the interior of the box will be removed, and the door *b'* may be opened.

F is a safety-valve, which, being weighted at a determined degree, may be thus arranged to maintain any desired pressure of the air in the chamber. *F'* is a supplementary safety-valve.

G is a pressure-gage, by which the degree of pressure existing in the chamber will be at any time apparent. *H* is a thermometer, mounted in a glass pipe, *h'*, which is connect-

ed with the pipe *h''*, provided with the cock or valve *i*, said pipe leading to the interior of the chamber, as shown.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the chamber *A*, in a compressed-air bath apparatus, with the box *E*, doors *a'* and *b'*, pipe *f*, with its valve *g*, and the escape-cock *h*, as described, and for the purpose specified.

DANIEL KELLY.

Witnesses:

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