

J. E. Simes,

Air Bed.

No. 96,989.

Patented Nov. 16. 1869.

Fig. 2.

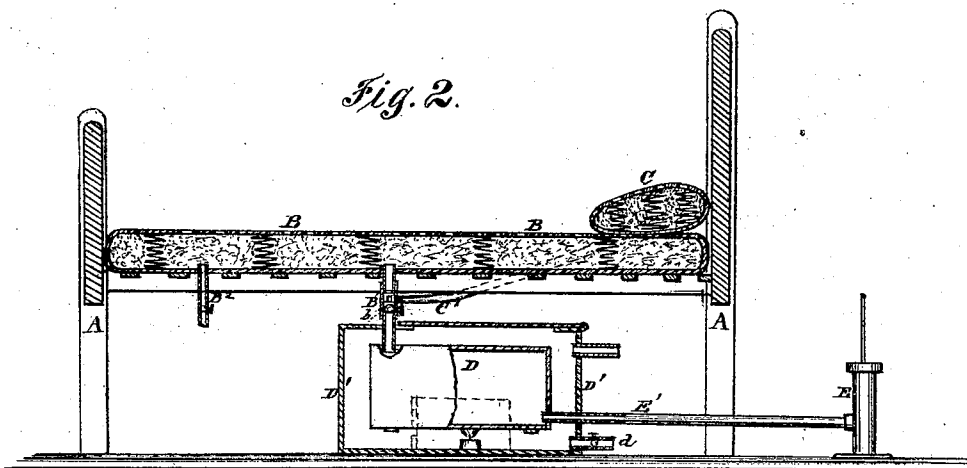
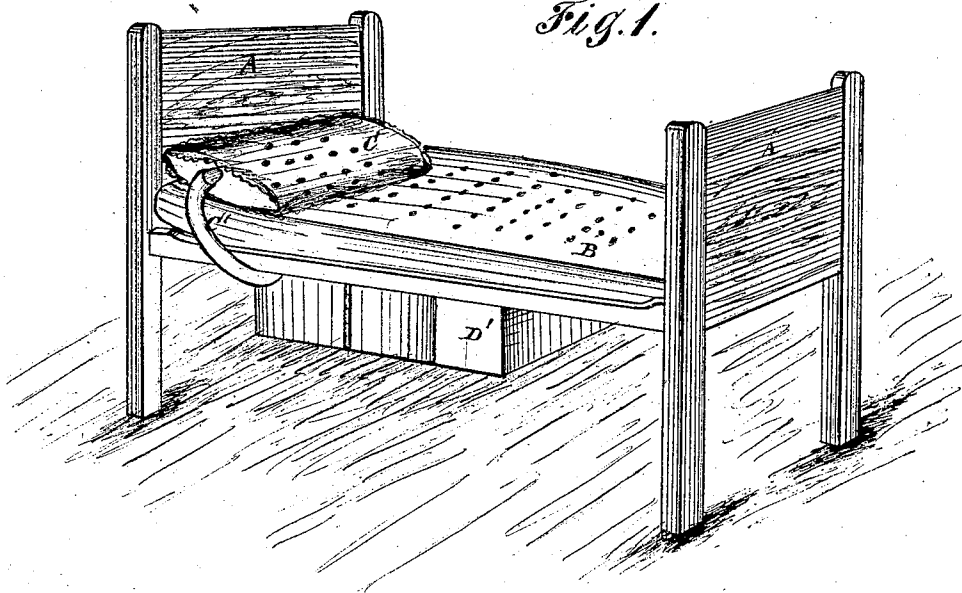


Fig. 1.



Witnesses
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DANIEL E. SOMES, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 96,989, dated November 16, 1869.

IMPROVED MEANS FOR VENTILATING, COOLING, AND WARMING BEDS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, DANIEL E. SOMES, of Washington, in the county of Washington, and in the District of Columbia, have invented a new and useful Improved Mode of Cooling, Warming, and Ventilating Beds; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a perspective view of a bedstead, with a mattress and pillow of my construction connected to means for ventilating and cooling or warming the same.

Figure 2 is a longitudinal section thereof.

The same letters are used in both figures to designate identical parts.

My invention consists—

First, in constructing a mattress, bed-sack, or pillow with a covering of air-tight material, having perforations in its upper side.

Second, in ventilating such mattress or pillow, by either forcing air into and through, or by drawing it from the same.

Third, in the combination with such mattress and pillow, of a reservoir, wherein air may be stored, for the supply of the former.

Fourth, in the combination of such mattress and reservoir, when the latter is so arranged that the air therein may be either warmed or cooled.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, in the drawings, represents a bedstead, of ordinary construction, in which the mattress B and pillow C are placed.

These may be made in the most approved manner, stuffed with hair or other material, and also provided with springs, such as shown, or any other kind, if desired.

Their coverings are to be made of air-tight material, perforated in their upper surfaces, as shown, so as to admit of air being forced or drawn through them, as may be most expedient.

Instead of being perforated, these coverings may have a large opening in their upper sides, which is closed by a sheet of sleazy, or open cloth, sewed, or otherwise fastened to the coverings, and serving the purpose of the perforations.

B¹ is a pipe, leading from the under side of the mattress into a reservoir, D, an air-tight box, made of sheet-metal, or other suitable material, into which air is introduced by an air-pump, E, which is connected with such reservoir by the induction-pipe E¹.

Thus air may be stored in the reservoir, or compressed therein, a cock, b, being arranged in the pipe B¹, to prevent the escape of the air into the mattress until it is wanted, and the design is to make the reservoir sufficiently large to receive such a quantity of air as will serve to ventilate, or warm, or cool the bed during the night.

The pillow C is supplied with air from the same reservoir, being connected by a flexible pipe, C', to the pipe B¹, above its cock or valve, as shown.

The reservoir is to be placed within another box, D', into which ice, or other cooling-substances are introduced, surrounding the reservoir, when it is desirable to cool the air contained therein, before it passes into the mattress and pillow.

A pipe, d, is arranged in the bottom of this outer case, provided with a cock, to draw off the water, as the ice melts.

When, on the other hand, it is desirable to introduce warm air into the bed, the air in the reservoir is warmed, by heating the latter, by means of a gas-jet or lamp, a pipe being arranged in the upper part of the outer case, to carry off any noxious gases out of the room, so that the atmosphere therein may be left as pure as possible.

I do not confine myself to the particular arrangement of the reservoir shown, as it may be located either under the bed, in the same room, or away from it, at any other desirable point.

Another pipe, B², issues from the mattress, and is to be connected to a blower, by which the air may be drawn off, so as to prevent the exhalations of a sick person to mingle with the air of the room.

My invention supplies a necessity long wanted, particularly in hospitals, where it is of the greatest importance that the beds occupied by the sick should be thoroughly ventilated and supplied with such air as may be most desirable to further the cure of the patients.

Thorough ventilation of beds being provided for by my invention, it will be found most valuable in hotels, as the danger of catching a disease by sleeping in a bed, previously occupied by a sick person is thereby entirely obviated.

Having thus described my invention,

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

1. A mattress, bed-sack, or pillow, the covering of which is composed of air-tight material, having perforations, or their equivalents, as described.

2. The mattress or bed-sack B or pillow C, ventilated as described, either by drawing air from, or forcing it into the same.

3. In combination with the mattress or bed-sack B, or pillow C, the reservoir D, wherein air may be compressed and stored, as and for the purpose set forth.

4. In combination with the mattress or bed-sack B, or pillow C, the reservoir D, provided with means for warming or cooling the air therein, or both, as described.

D. E. SOMES.

Witnesses:

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