

E. L. ROBERTS.  
Ventilating Bed.

No. 161,551.

Patented March 30, 1875.

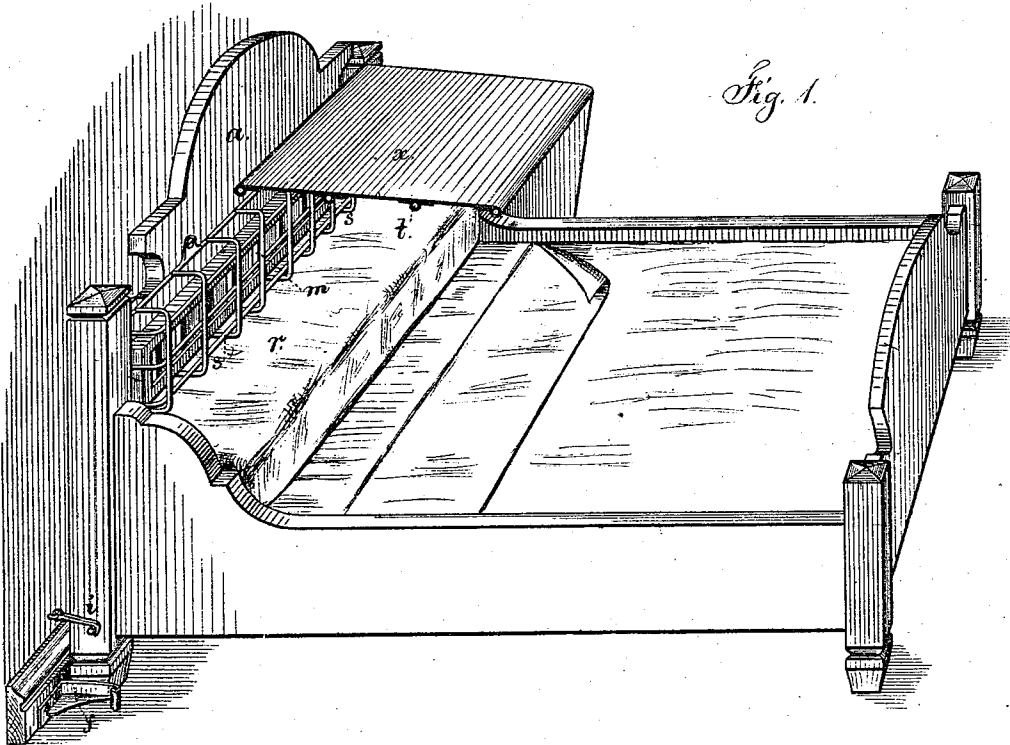


Fig. 1.

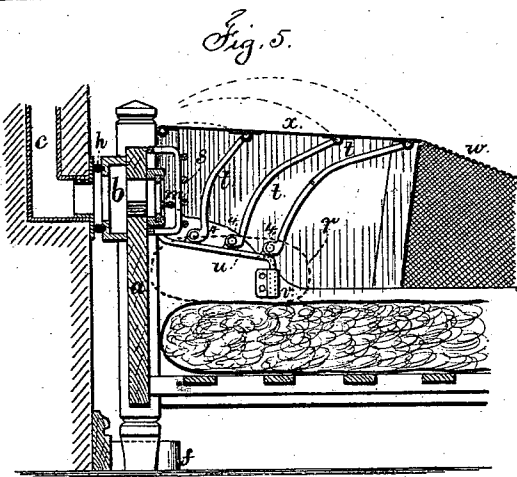


Fig. 5.

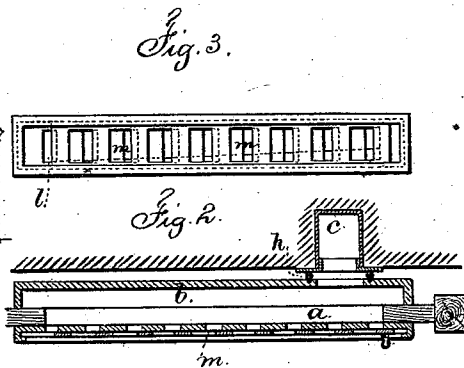


Fig. 3.

Fig. 2.

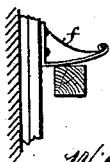


Fig. 4.

Witnesses

Charles Smith  
Geo. D. Pinckney

Inventor

Ebenezer L. Roberts.

per L. W. Serrell  
att'y

# UNITED STATES PATENT OFFICE.

EBENEZER L. ROBERTS, OF PLAINFIELD, NEW JERSEY.

## IMPROVEMENT IN VENTILATING BEDS.

Specification forming part of Letters Patent No. **161,551**, dated March 30, 1875; application filed September 5, 1874.

*To all whom it may concern :*

Be it known that I, EBENEZER L. ROBERTS, of the city of Plainfield, Union county, State of New Jersey, have invented an Improvement in Ventilating Beds, of which the following is a specification:

I provide a flue and a mouth near the head-rest or pillows of the bed, in order that a current of air may be drawn horizontally, or nearly so, over the bed and person thereon, to remove the noxious gases and exhalations from the person and promote health; and my present invention is an improvement upon that for which Letters Patent were granted to me August 4, 1874, No. 153,723; and these improvements relate to the manner of connecting the flue upon the bedstead with the flue in the building, and to the manner of placing and retaining the bedstead in position.

In the drawing, Figure 1 is a perspective view of the bedstead. Fig. 2 is a partial sectional plan of the flue. Fig. 3 is a front elevation of the register. Fig. 4 is a plan of the guide-cleats upon the floor or base-board, and Fig. 5 is a vertical section of the register trunk and hood.

The bedstead is of any desired size, shape, or character.

At the back of the head-board or head-guard *a* there is a horizontal trunk, *b*, of a size adapted to pass away the required amount of atmospheric air. At the back of this trunk is a rearward opening, arranged in such position as to correspond with the opening in the wall of the room or other place leading to the rising flue *c*, that is either distant or near, as most convenient. One or both of the surfaces or edges contiguous to the openings are provided with india-rubber or other yielding substance *h*, to form a facing that makes the joint tight when the parts are brought together; but the bedstead can be moved away and replaced whenever desired, for sweeping or otherwise; and to facilitate the rearrangement of the bedstead I make use of the guide-cleats *ff*, that are fastened to the floor or to the skirting-board, and their curved or inclined faces are toward each other, so as to guide the legs of the bedstead as the bedstead is moved back to its proper position. Hooks *i* or other attaching devices may be used to connect the

bedstead to the base-board and hold it in position. These hooks also insure the proper contact of the facing or packing *h* of india-rubber with the surface around the flue-mouth, so as to keep the parts tight. It is to be understood that a current of air is maintained in the flue *c* preferably by a gas-burner or lamp; and in order to insure a uniform current of air to the trunk from both sides of the bed, I employ a graded mouth, made with the opening near the escape-flue *c* narrowest, and becoming wider toward the ends, as seen at *l*, Fig. 3; and in front of this graded mouth are the register-plates *m*, one sliding upon the other, so as to open or close the inlet-openings for the atmosphere. The elastic material between the surface upon the bedstead and the fixed portions at the wall, that are contiguous to the flue, allows of slight changes of position incidental to shrinkage and settling in the building without the joint opening; and the hooks or fastenings and stops prevent the bedstead being moved away from the flue accidentally.

By the foregoing devices the extent of the current passing horizontally, or nearly so, over the pillows or head-rest *r* can be regulated according to the wants of the person and the condition of the atmosphere; but under some circumstances the pillows may be piled up, and would close, or partially so, the register-mouth. To prevent this the open-work guard *s*, of woven or other wire or suitable material, is placed in front of the register-mouth, so as to keep the pillows away from the register, and allow the air to enter freely and be drawn down from above; and I remark that the object I have in view is to insure a perfect ventilation around the head-rest and the person's head thereon; hence, if the flue-mouth is slightly below the person's head it will not be detrimental, because the bedding prevents the air drawing up from below the bed, so that the circulation is above the bed and pillows.

The hood *x* is made with bows or wire frames *t t*, swinging on the joints *4 4*, and these are upon bars *u*, that set into sockets *v*, attached at the sides of the bedstead. The positions of the joints *4* are such that the front part of the hood swings freely forward, or is easily pushed back out of the way. The hood is of

ornamental material, such as silk, and has a curtain or extension, *w*, of lace or netting, that serves to prevent the spread of contagious exhalations into the room, but does not prevent fresh air from passing to the patient.

I claim as my invention—

1. A horizontal trunk connected with a bedstead, and provided with a graduated opening contiguous to the head-rests, which opening is narrowest adjacent to the escape-flue, for the purposes specified.

2. The guide-cleats *f*, secured to the floor or skirting-board, in combination with the bedstead and ventilating-flue trunk thereon, for the purposes set forth.

3. In combination with a bedstead, *a*, flue-

trunk *b*, and the wall of the building, having a flue, *c*, and mouth contiguous to the opening in the trunk *b*, the elastic packing *h*, cleats *f*, and hooks *i*, substantially as and for the purposes specified.

4. A guard or grating applied in front of the horizontal opening passing into the flue-trunk at the head of the bedstead, for the purposes specified.

Signed by me this 3d day of September, A. D. 1874.

E. L. ROBERTS.

Witnesses:

GEO. T. PINCKNEY,  
CHAS. H. SMITH.