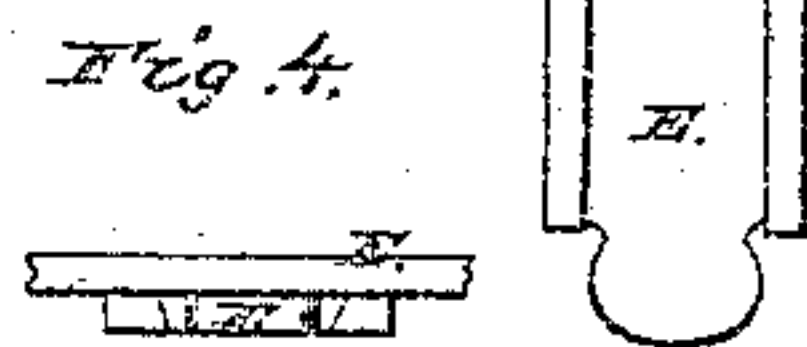
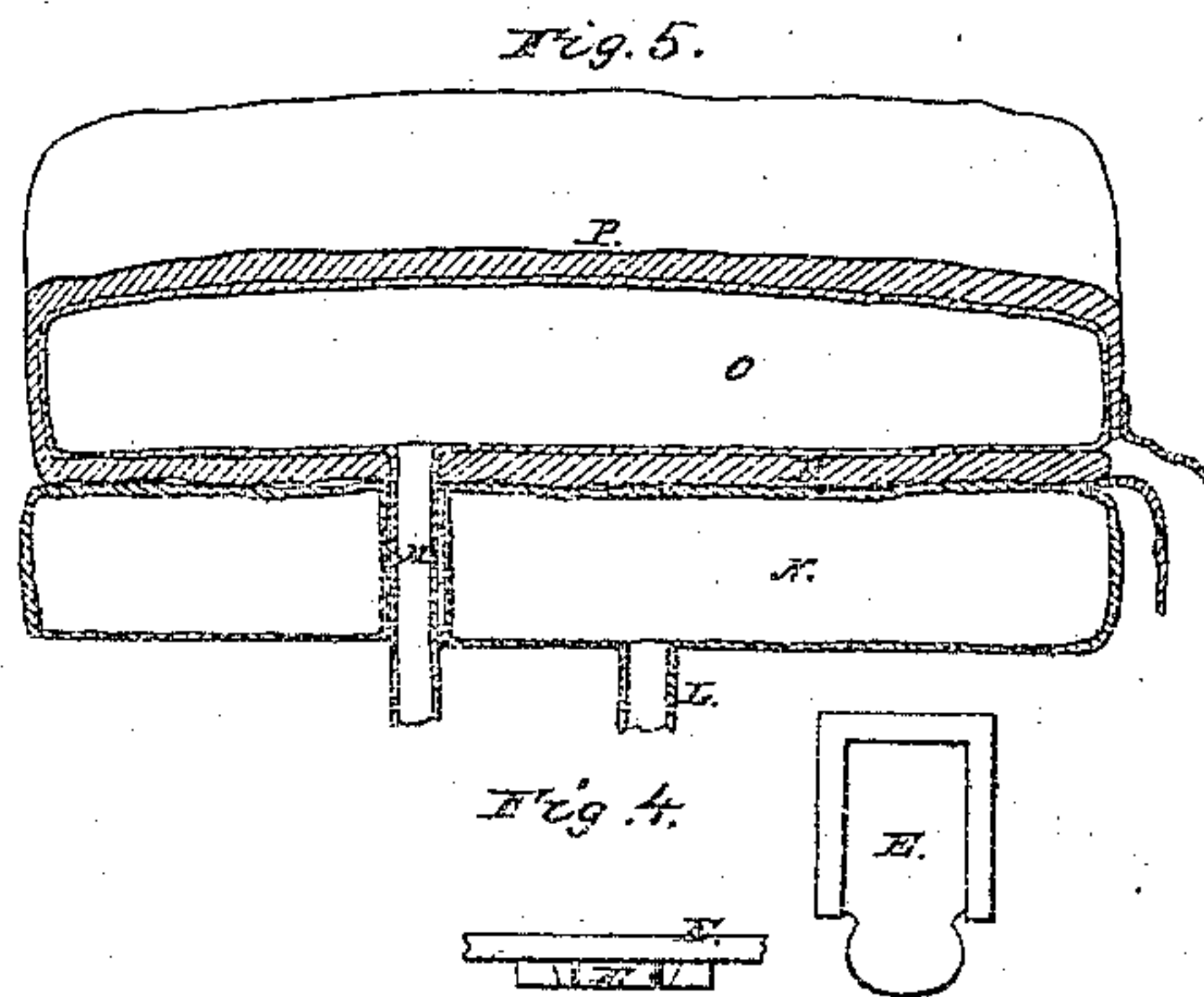
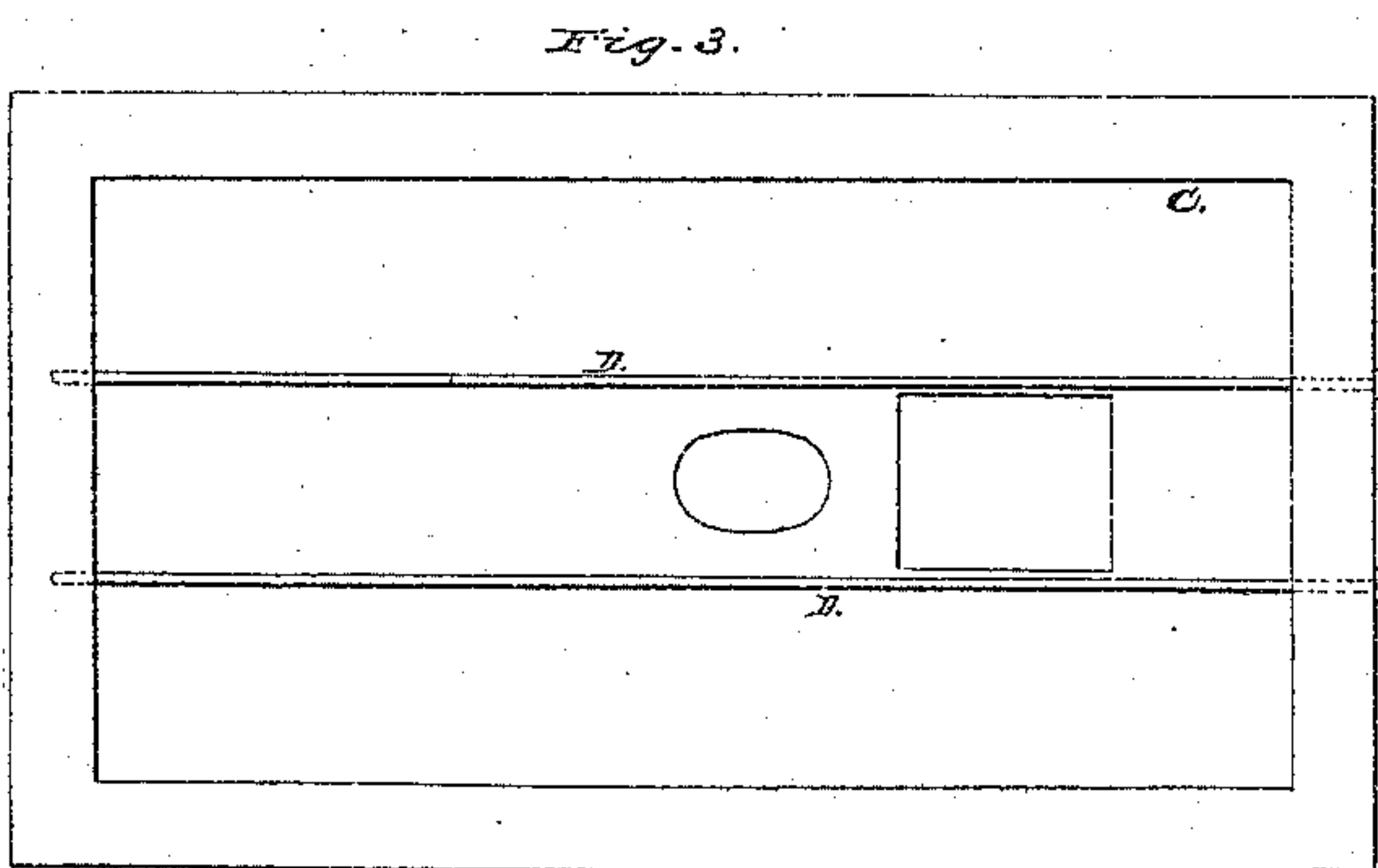
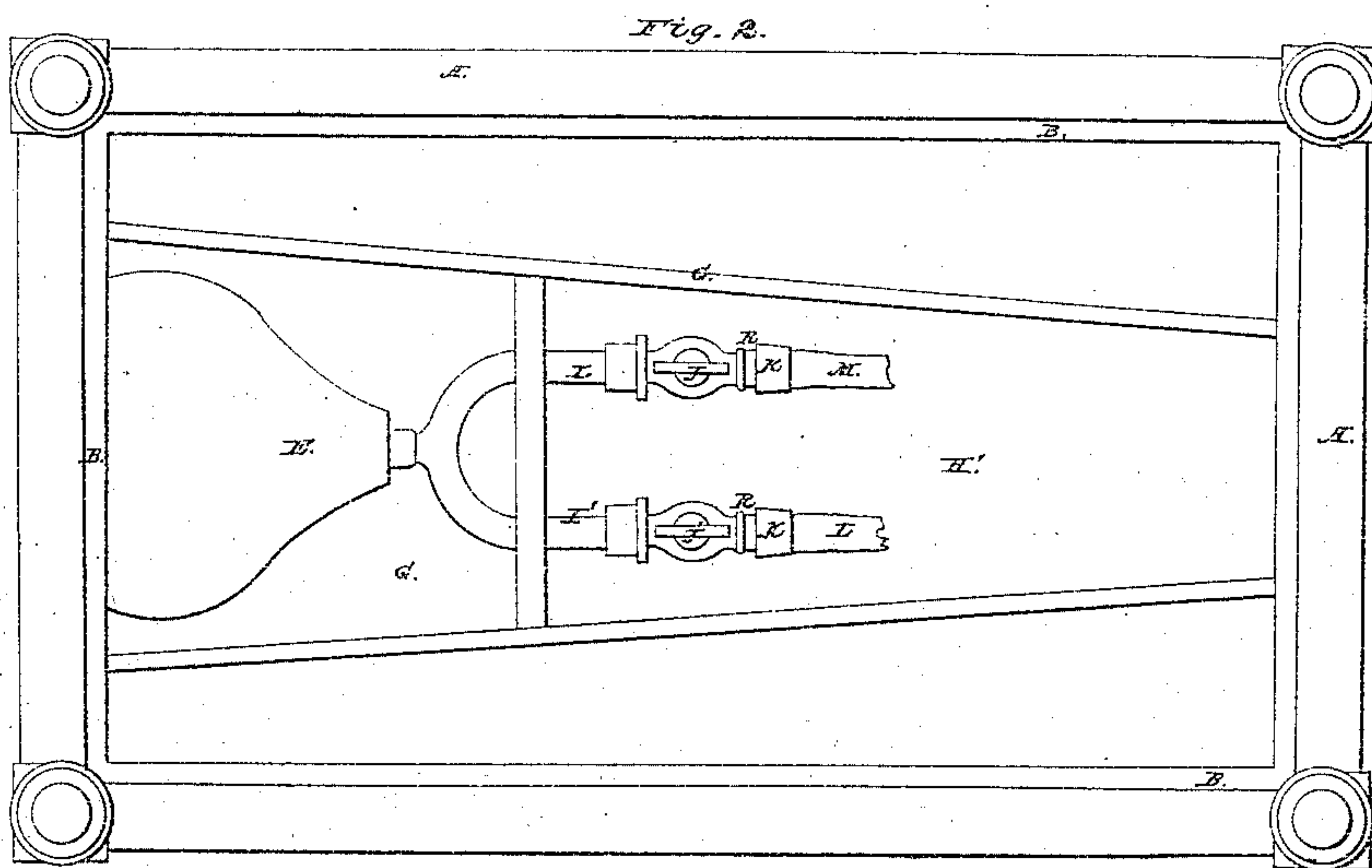
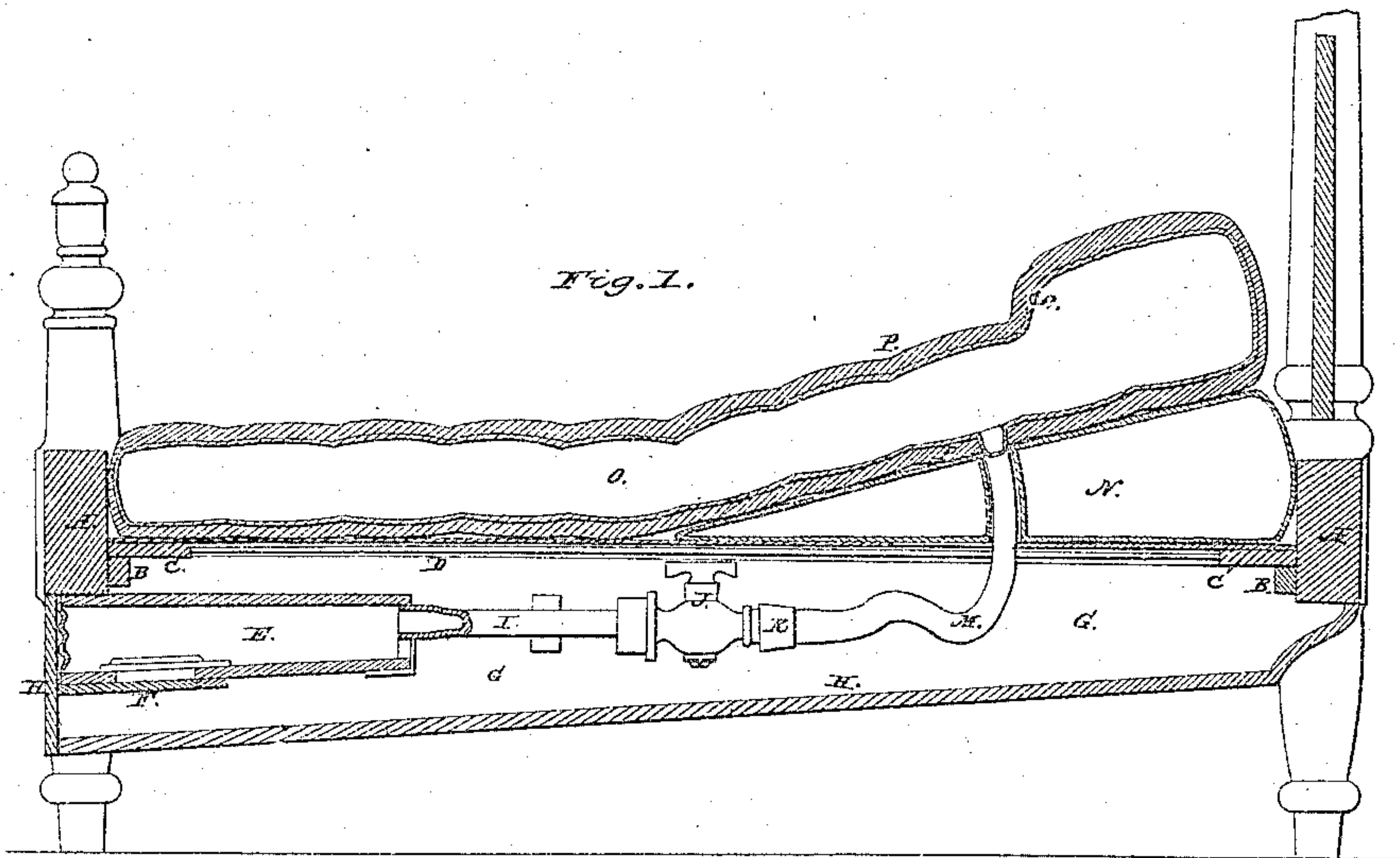


No. 10,139.

PATENTED OCT. 18, 1853.

J. SCOTT.
AIR BED.



UNITED STATES PATENT OFFICE.

JOHN SCOTT, OF PHILADELPHIA, PENNSYLVANIA.

AIR-BED.

Specification of Letters Patent No. 10,139, dated October 18, 1853.

To all whom it may concern:

Be it known that I, JOHN SCOTT, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Air-Beds and the Manner of Sustaining and Inflating the Same, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

This is an important improvement on the air beds alluded to by Dr. Arnott, who speaking of those air beds as ordinarily constructed observes: "Even with the pressure of an air pillow it was evident that a person weakened by disease feels uneasiness from the compression in the parts of the body on which he lies from impeded circulation, &c., and which compression the air pillow did not alleviate: as notwithstanding the great elasticity of air itself these beds are not very elastic, as they support by the tension of the surface which incloses the air, and like a hammock or tight sacking is really a hard pillow; while it is to be observed that such beds require very great care as the smallest puncture will render them useless."

By my improvement I obviate the above objections, as by it the softness of a feather bed is combined with the convenience, advantage, and economy of the air bed; while at the same time liability of puncture or disruption of the air sack is avoided and even should this occur my invention will still form a good bed: and consists in so forming a bed and bolster of an air tight india rubber cloth sack inclosed or enveloped in a pouch formed mattress composed of two thicknesses of ticking or other suitable material between which is interposed feathers, hair, cotton or other soft substance retained by proper quilting: the said mattress conforming to the shape and size of the air sack when extended with air by flexible pipes: by a bellows arranged at the lower part of the bedstead in such a manner as to enable either the bed to be alone inflated, or both it and the air vessel, when it is desired to elevate the head to suit an invalid or for other purposes.

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

The rails A of the bedstead are made and secured to the posts in the usual manner,

and have projections or ledges B secured on their inner sides, upon which rests a rectangular frame C exactly fitting within the rails, and composed of four boards or slots connected together and braced by metallic rods D running lengthwise—the whole being covered with a plate of galvanized sheet iron and serving to give a slightly elastic support to the bedding. Immediately below this frame, and at the foot of the bed is arranged a bellows E of any desired description, having a movable handle F at its lower part, inserted between dovetailed guides on the bellows so as to enable it to be drawn out when it is desired to operate the bellows, and forced in flush with the end of the same when not in use. The bellows is secured firmly within a tapering case or trunk G extending from the foot to the head of the bedstead, at the lower part of the same, and provided with doors H, H, at its end and lower part for allowing access to the bellows and its pipes, to operate the same and attach and detach the flexible tubes of the bed and elevating air vessel. The exit pipe of the bellows is forked so as to form two distinct pipes I, I, for the passage of the air, which pipes are provided with cocks, lettered respectively J, J', secured to them by screw coupling joints, the pipes of which cocks have attached to their ends by conical metallic rings K or other means, flexible tubes L, M, extending through an opening in the metallic covering of the frame C, one to the elevating air vessel, and the other through the same to the bed.

The elevating air vessel N is made of air-tight india rubber cloth or other air tight material the same width as the bed, and about one half its length, enlarging from the center to the head of the bed, and resembling in form when inflated a wedge.

The bed and bolster O are formed in one part, and communicate with the bellows by means of the flexible tube M, passing through the space in the air vessel N. The bed thus formed is inserted in a bag or case P, corresponding exactly with its form when inflated, before being arranged in its proper position, which bag or case is composed of ticking or other cloth, wadded or stuffed with feathers, wool, hair, or other suitable material, and when laced or tied at its mouth entirely surrounds the bed, and thus protects it from being punctured by pins or

other sources, and prevents it bursting from a sudden weight falling on it, by limiting and equalizing its expansive force. In case an incision should by any means be made in the india rubber cloth air bed, or it should from any cause lose its air tight property, this outer covering or case will form a comfortable bed of itself.

The air bed is inserted in the bag or case P, and tied or laced in the same before being inflated—the flexible tube M being passed through the opening in the same, and through the opening in the air vessel N, and the two are placed on the supporting frame C, and their tubes extended through the opening in the metallic top of said frame, and secured to their respective pipes R, R, of the cocks J, J', of the bellows, as before stated—access being had to the pipes through the door H' in the lower part of the case or trunk. The other door H of said case or trunk is then opened, and the movable handle F of the bellows drawn out, and operated until the bed and elevating vessel are inflated with air to the required degree, when the cocks J, J', are turned or closed to retain the air within the same—the relative quantities in each being regulated by the cocks to suit the views of the operator, or the taste of the person occupying the bed. By this same means (the employment of the cock J') the elevating air vessel may be left in a collapsed state, entirely free of air, providing it is not desired to raise the head of the bed beyond its ordinary height. The bellows handle is then pushed in, and the doors of the case or trunk G closed, and in case it is desired locked to prevent interference by mischievous persons. The elevating air vessel N may be applied to the ordinary formed beds or mattresses, if desired, by simply placing it under the head of the same, and extending the flexible tube L through an opening in the sacking bottom, and said air vessel may be either inflated with a bellows, or by the application of a person's mouth. The air bed may be also made with two chambers—one at

the head and one at the foot—with communicating spaces between to enable the head portion to be raised by the elevating air vessel without interfering with the foot portion, or moving it from its horizontal position.

When it is desired to remove the air from either the bed or elevating vessel, or both, the cocks J, J', are opened and the valve of the bellows raised by any suitable means, and the air is pressed from said bed or elevating vessel, or both as the case may be.

This form of bed, either with or without the elevating air vessel, is particularly adapted to steam boats and other vessels carrying passengers, not only on account of its extreme comfort to lie upon, but also from the fact of its buoyant capacity enabling it to be employed as a life preserver in case of danger; for which purpose it is admirably adapted as it is freed from the objections of accidental rupture consequent on an unprotected sack; while it also consists of a floatant character should such accidental rupture occur; or should the bed be thrown over in an unflated state as the person going over with it would have an opportunity to inflate it while in the water by applying his mouth to the flexible tubes.

Having described the nature of my improvement what I claim as my invention and desire to secure by Letters Patent is—

Forming a bed of an air tight india rubber cloth sack inclosed or enveloped in a pouch formed mattress composed of two thicknesses of ticking or other suitable material between which is interposed feathers hair cotton or other soft substances retained by proper quilting: said mattress conforming to the shape and size of the air sack when extended with air by flexible pipes.

In testimony whereof I have hereunto signed by name before two subscribing witnesses.

JOHN SCOTT.

Witnesses:

JOHN F. CLARK,
SAML. GRUBB.