L. Ballhoefer, Air Bed,

1,59,945

Patented Nov. 27, 1866.

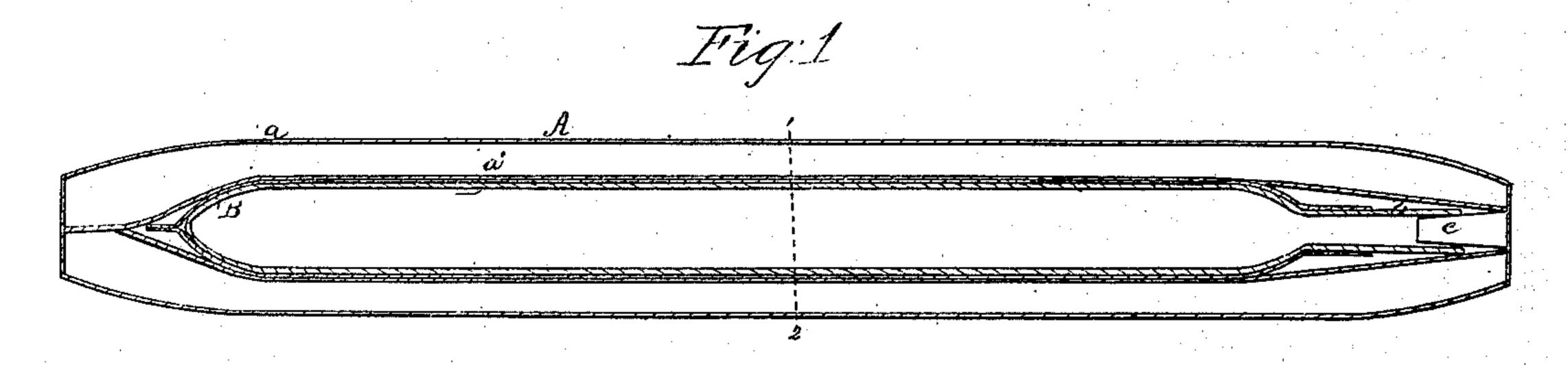


Fig. 2.

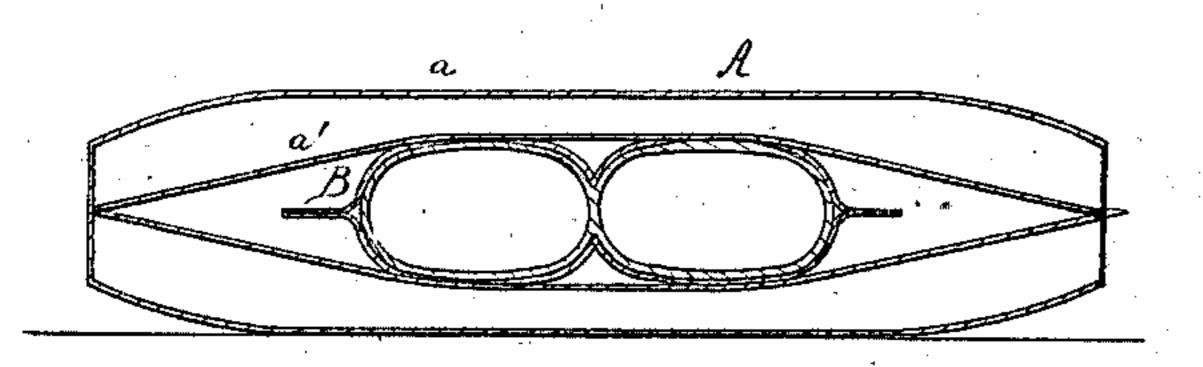
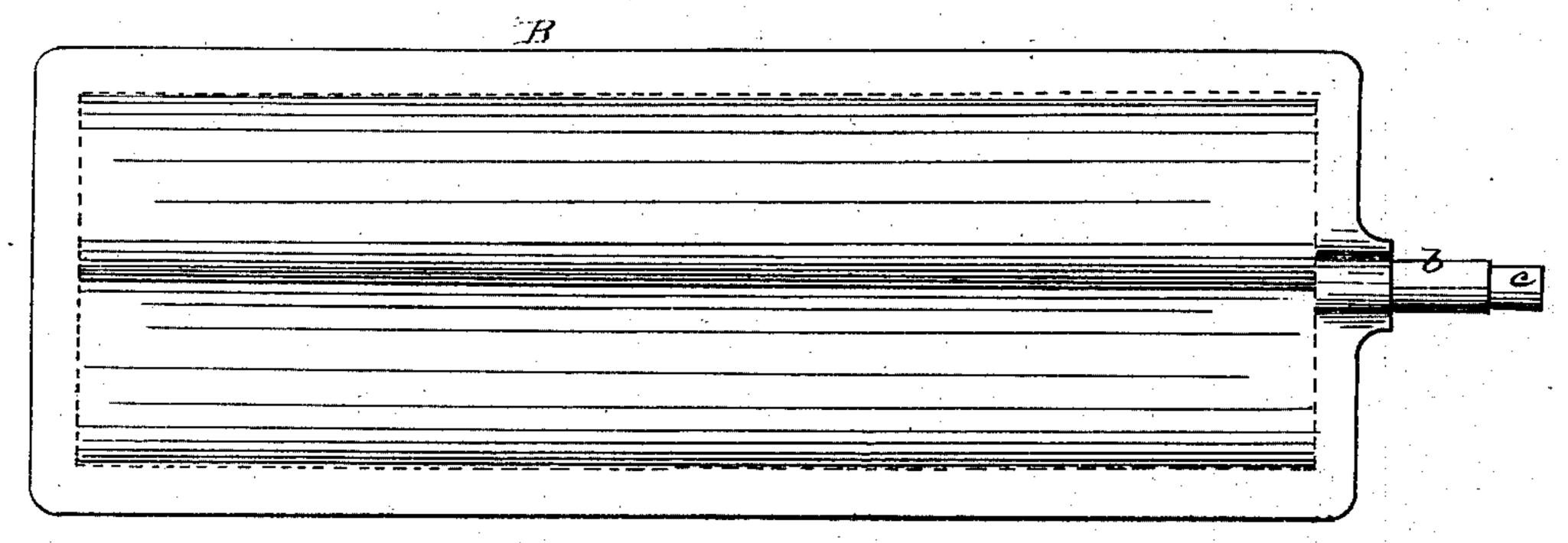


Fig.3.



Mitnesses:

John Parker Um Albert Skeel. Threntor. De Buchvefor By his attorney. Henry Hornson

UNITED STATES PATENT OFFICE.

LOUIS BAUHOEFER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED CUSHION OR MATTRESS.

Specification forming part of Letters Patent No. 59,945, dated November 27, 1866; antedated November 3, 1866.

To all whom it may concern:

Be it known that I, Louis Bauhoefer, of Philadelphia, Pennsylvania, have invented an Improvement in Mattresses, Cushions, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

My invention consists in the combination of a mattress reduced in thickness in the center and an air-cushion divided into two or more separate compartments, as fully described hereafter, the surface of the mattress being thus maintained more uniformly level than when mattresses of the same thickness throughout or air-bags having only one compartment are used.

In order to enable others to apply my invention, I will now proceed to describe the manner of carrying it into effect.

On reference to the accompanying drawing, which forms a part of this specification, Figure 1 is a longitudinal section of a mattress with my improvement; Fig. 2, a section on the line 1 2, Fig. 1; and Fig. 3, a plan view of the air-bag used with the mattress.

A is a mattress or cushion, which consists of an outer bag or sack, a, of ticking or other suitable fabric, and an inner lining, a', of a similar fabric, the edges of which are secured to the sides of the sack a, the space between the two being filled with hair, husks, cork, or any of the ordinary filling materials, there being less material in the center than at the edges of the cushion, for a purpose described hereafter.

Both the sack a and lining a' are open at one end to allow for the introduction of a bag, B, of rubber, cloth, or other suitable material, which, in the present instance, is divided longitudinally into two compartments; and at one end of the bag is a tube, b, into which fits a plug or stopper, c.

The bag is inflated with air, which is introduced through the tube b. The latter is then closed, and the bag is introduced into the mattress to the position shown in Fig. 1, when the mattress is ready for use.

In a mattress or cushion of this description almost any desired elasticity may be obtained by inflating the bag B to a greater or less extent; and, as the bag is divided into compartments, the air cannot be forced to too great an

extent on one side when a weight is placed on any one point, so that the surface of the mattress is maintained at a nearly uniform level. The mattress is prevented from being elevated to too great an extent in the center in consequence of the inflation of the bag by reducing the quantity of filling material in the center, as before described.

I am aware that air-bags have heretofore been used with mattresses, as in the invention patented by John Scott, October 18, 1853. In all such instances, however, the mattress has been of the same thickness throughout, and but a single bag without compartments has been used, so that the mattress would sink to too great an extent wherever any weight was placed on the same in consequence of the air being forced to the opposite side of the bag, while the latter would be rendered entirely useless if an opening should be made

in any portion.

It will be seen that, in the above-described mattress, by reducing the quantity of material at the center, or, in other words, making it thicker at the edges, I am enabled to use a bag composed of two layers of rubber, or other material, secured at their edges; whereas if the mattress was of the same thickness throughout it would either be elevated too much in the center when the bag was inflated, or it would be necessary to use an air-bag of a box form—that is, having vertical sides or edges—bags of this construction being expensive and difficult to make.

It will also be seen that by the use of a bag divided into different compartments, or by the use of several bags in one mattress, the air is prevented from escaping to the side where there is least pressure, and the destruction of the entire bag, should an opening be made in one portion, is prevented.

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

The mattress A, in combination with the airbag B, divided into two or more compartments when the mattress is reduced in thickness in the center, as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS BAUHOEFER.

Witnesses:
EDWARD WILLIAMS,
HENRY HAUER.