No. 611,585. Patented Sept. 27, 1898.

J. B. ANDRES.

PNEUMATIC MATTRESS.

(Application filed Nov. 23, 1897.)

(No Model.)

FIG. 1

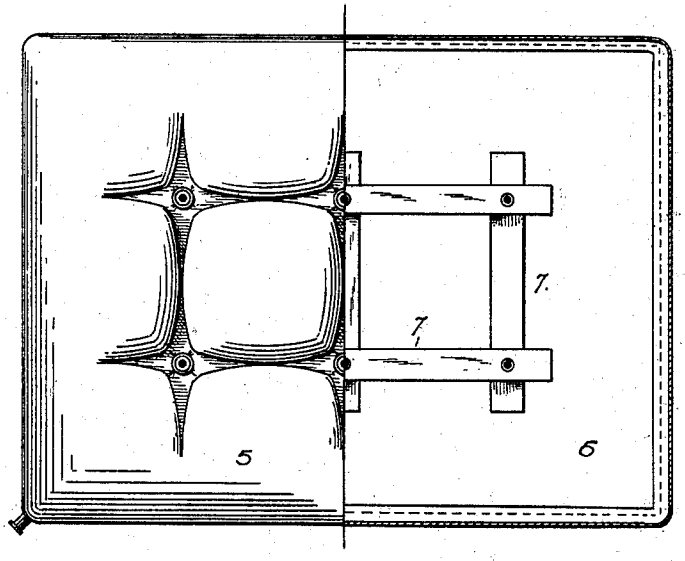


FIG. 2.

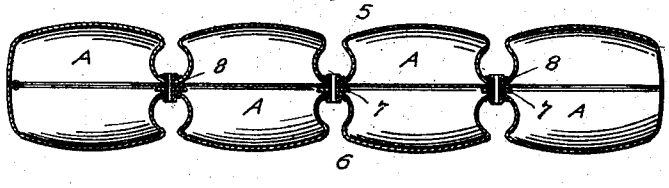


FIG. 3

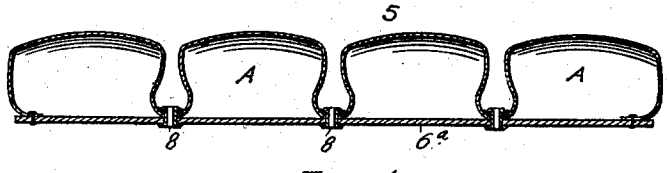
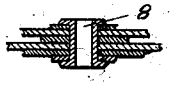


FIG. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN B. ANDRES, OF DENVER, COLORADO.

PNEUMATIC MATTRESS.

SPECIFICATION forming part of Letters Patent No. 611,585, dated September 27, 1898.

Application filed November 23, 1897. Serial No. 659,567. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. ANDRES, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Pneumatic Mattresses; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in pneumatic mattresses, my object being to provide a ventilated mattress of this character which may be of any required thickness and whose surfaces shall be approximately flat.

To these ends the invention consists of the features hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a combination view, the left-hand part being shown in plan and the right-hand part in horizontal section. Fig. 2 is a vertical cross-section of the mattress. Fig. 3 is a cross-section showing another form of construction.

The mattress material must of course be made air-tight; but as there is nothing new about this I will assume that the mattress fabric is suitable for holding air and that the edges of the two sides are suitably connected for the same purpose.

Referring now to Figs. 1 and 2, let the numerals 5 and 6 designate the top and bottom or opposite sides of the mattress. Between the two sides and inclosed by the mattress fabric are placed strips 7, which are arranged to cross one another at points where the ventilating-orifices are to be formed. At each crossing of the strips apertures are formed through both. Apertures are also formed in the sides 5 and 6 of the mattress fabric and so located as to coincide with each other. The area inclosed by lines connecting four of these adjacent apertures when the sides are flat must be larger than the area inclosed by lines connecting the four corresponding apertures formed in the strips 7. The sides 5 and 6 are then arranged to cause their apertures to coincide or register with the apertures formed in the strips 7, the result being that when the eyelets, gromets, or ventilating-eyes 8 are inserted and fastened in the apertures of the sides 5 and 6 and the strips 7 the sides are sufficiently full or loose to form pockets A, which when the mattress is inflated will extend in opposite directions from the strips 7 and give the mattress any desired thickness. The thickness of the mattress is of course regulated by the fullness of the sides, whereby the pockets A are given more or less volume, as required.

The openings in the eyelets or ventilating-eyes 8 may be made of any size necessary to give the desired ventilation. When it is desired to have the pockets A only on one side of the mattress, one of the sides—for instance, that which is designated by the reference-character 6^a (see Fig. 3)—is made of less area than the opposite side 5, and the apertures are so formed in the two sides that after the ventilating-eyes 8 are applied and the side 6^a stretched flat the side 5 will be sufficiently full to form pockets A when the mattress is inflated, the pockets projecting only in one direction. In this case the mattress side 6^a takes the place of the strips 7 in regulating the size of the mattress.

It will be understood that instead of the strips 7 a continuous sheet of suitable material may be employed. The strips 7 are used to economize material and to diminish the weight of the mattress.

Having thus described my invention, what I claim is—

1. In a ventilated pneumatic mattress, the combination with the fabric comprising the top and bottom of the mattress, of a piece of fabric located between the top and bottom parts and inclosed thereby, its edges being free from the outer mattress fabric, apertures being formed in the outer mattress fabric and the interposed piece of fabric, and ventilating-eyes inserted in said apertures and fastened to the said parts.

2. In a pneumatic mattress, the combination with the outer mattress fabric, of crossed strips interposed between the top and bottom of the mattress, apertures being formed in

the top and bottom parts and the interposed strips at the intersection of the latter, and ventilating eyes or rings inserted in said openings and fastened to the said parts.

3. In a pneumatic mattress, the combination with the fabric comprising the top and bottom of the mattress, of a piece of fabric located between the top and bottom parts, its edges being free from the outer mattress fabric, and suitable fastening devices passed through the top, bottom and intermediate parts whereby the said parts are securely fastened together.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN B. ANDRES.

Witnesses:
EDITH HIMSWORTH,
A. J. O'BRIEN.