

May 10, 1927.

1,627,835

R. L. COMBS

PNEUMATIC BED

Filed June 14, 1923

Fig. 1.

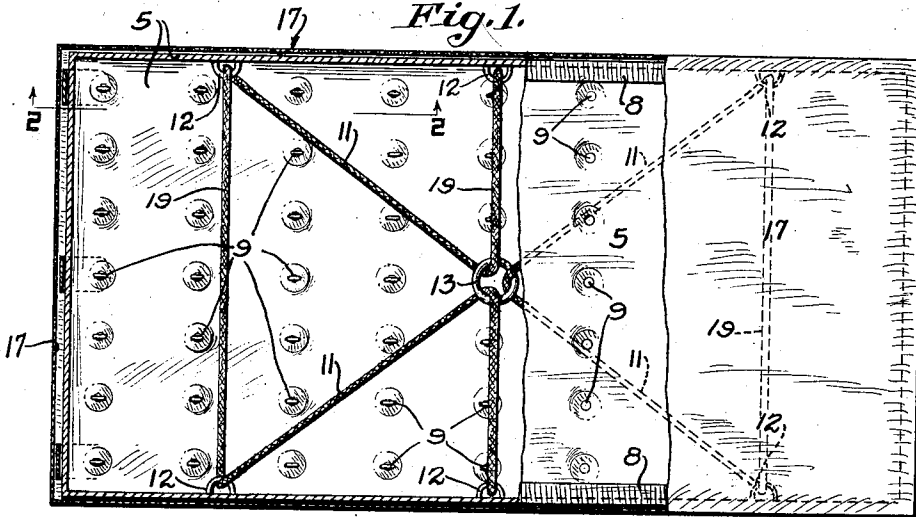


Fig. 2.

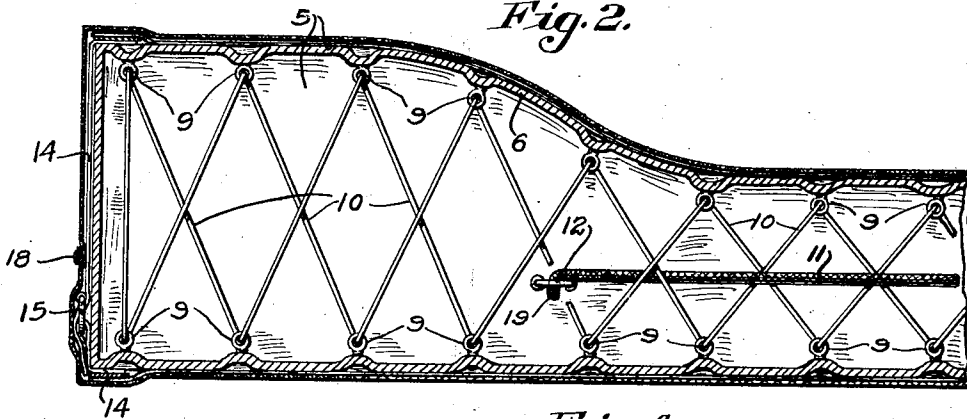
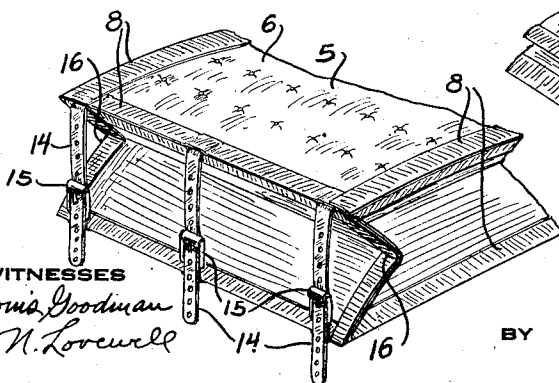
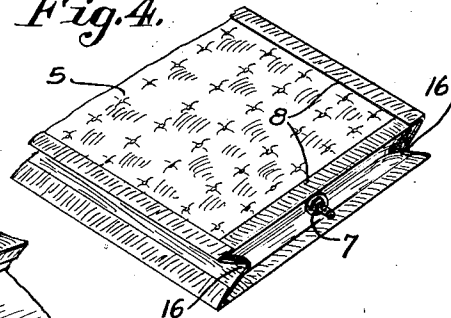


Fig. 3.



WITNESSES
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Fig. 4.



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UNITED STATES PATENT OFFICE.

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PNEUMATIC BED.

Application filed June 14, 1923. Serial No. 645,394.

This invention relates to pneumatic beds or mattresses which are adapted to be deflated when not in use, and to be folded up so as to occupy a small space, and to be easily moved from place to place.

One of the principal objects of the invention is to provide means for securing the top, bottom and sides of the bed in such a manner as to be comparatively firm, to prevent side sway when subjected to the weight of the occupant, and at the same time to permit the yielding of the surface to insure comfort.

It is also an object of the invention to provide a bed which has an integral pillow portion, which is adjustable in thickness to suit the individual preference of the person using the bed.

The principles of the invention and the specific construction thereof will be best understood from the following detailed description taken in connection with the accompanying drawing, in which—

Figure 1 is a plan view of the invention, with a part thereof broken away and shown in section.

Figure 2 is a vertical sectional view through the pillow portion of the bed taken on the line 2—2 of Figure 1.

Figure 3 is a perspective view of the pillow portion with the cover removed.

Figure 4 is a perspective view of the foot portion thereof.

The bed, which comprises my invention, includes an air-tight casing 5 made of flexible rubber or the like, and is substantially rectangular in shape with the exception that the upper side thereof at one end is normally raised upwardly, as shown at 6 in Figure 2, to form a pillow portion. This casing may be inflated through a valve 7 located, as shown, at the foot end of the casing, or in any other convenient position. The side edges of the casing are preferably reinforced by strips of tape or other fabric 8, preferably cemented to the surface of the rubber.

Secured to the inner surface of the top and bottom walls of the casing are a plurality of eyes 9 arranged in transverse and longitudinal rows. A plurality of lacing cords 10 are roven through these eyes, and drawn tightly so that the eyes are drawn inwardly toward each other, and the surface of the casing has the form of a tufted mattress. Thus, when the bed is subjected to a per-

son's weight, side sway is effectually prevented for the reason that any side motion of the upper surface would increase the distances between the respective eyes, and be restricted by the tension of the laces. In order to hold the sides of the bed from getting out of shape, a number of elastic ropes or cords 11 are stretched obliquely across the width of the bed and connected to suitable eyes 12 secured to the inner faces of the sides of the bed. These cords 11 are preferably connected at the centre by a suitable binder 13. It is also desirable for certain portions of these elastic cords to run perpendicularly from side to side as shown at 19.

The height of the pillow portion 6 may be adjusted to suit the individual taste of the occupant, by means of a plurality of straps 14 secured to the edges of the bed at the head end thereof, and adjusted by means of buckles 15. As many of these straps may be provided as desired. The side walls of the bed are so shaped that they fold inwardly, as seen at 16, after the manner of an accordion. After the height of the pillow has been adjusted by means of the straps, as shown in Figure 3, use of the mattress will soon cause different portions of the cords 10 to become adjusted to equal tension throughout the length of the cords, and the effect of the shortened straps will be substantially the same as if the side wall of the pillow itself had been actually made narrower. An outer covering 17, of suitable fabric, is provided for enclosing the rubber casing so as to protect the same against injury, and this casing may be provided with a suitable flap 18, whereby to remove the same or to adjust the straps 14.

From the foregoing description, it will be seen that the lacing cords 10 and the oblique elastic cords 11 effectively hold the top, bottom and sides of the bed and pillow to a uniform shape, preventing practically all side sway when the same is occupied. The integral pillow portion saves the trouble of having extra pillows, and also has the advantage that it may be adjusted to any height desired.

While I have shown and described the specific details of construction of one form in which the invention may be embodied, it is to be understood that various modifications may be made therein which come within the scope of what is claimed without departing from the spirit of the invention.

What is claimed is:

1. A pneumatic bed, comprising an air tight casing adapted to be inflated and having a series of eyes secured internally to the top and bottom, lacing cords roven through the eyes, elastic cords extending across the interior of the casing obliquely and perpendicularly to the sides thereof, all of said elastic cords being in a plane parallel to the top and bottom of the casing and connected to the sides of the casing, and a single ring at the center of the casing through which all of said elastic cords are roven, said ring being supported by the tension of said elastic cords.
2. A pneumatic bed comprising an air-tight casing adapted to be inflated, interior cords connecting the top and bottom of the casing, interior cords connecting the top and bottom of the casing, elastic cords connected to the sides of the casing midway between the top and bottom of the mattress and disposed in a plane parallel to the top and bottom thereof, said elastic cords extending obliquely and perpendicularly to the sides of the casing in opposite directions from the center thereof, and a ring normally at the center of the bed through which said elastic cords are roven and by the combined action of which the ring is supported with its axis perpendicular to the top and bottom of the mattress.
- In testimony, that I claim the foregoing as my own, I have hereto affixed my signature.
- ROBERT LEE COMBS.