

May 21, 1946.

N. C. ARMSTRONG

2,400,731

MATTRESS COVER

Filed April 23, 1945

2 Sheets-Sheet 1

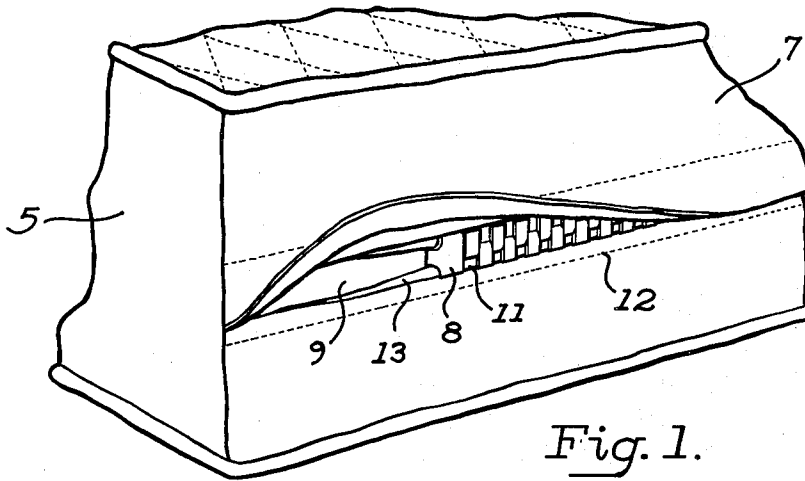


Fig. 1.

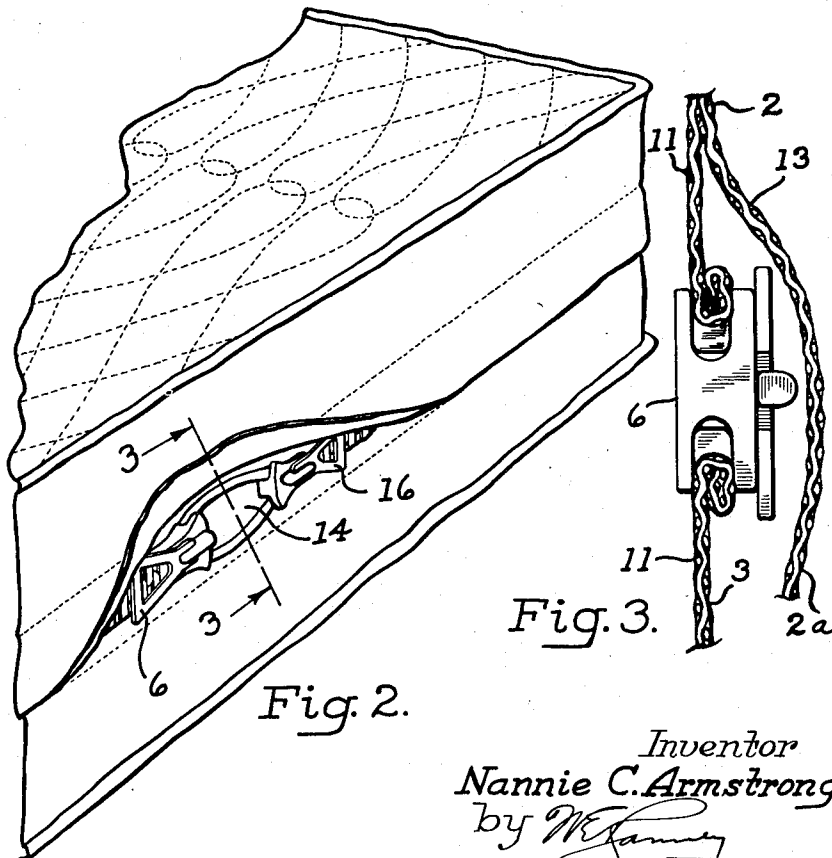


Fig. 2.

Fig. 3.

Inventor
Nannie C. Armstrong
by *W. J. Jamney*
Attorney

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2 Sheets-Sheet 2

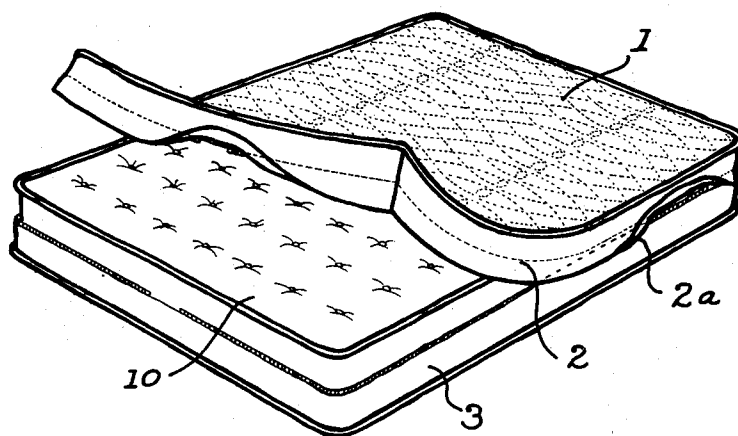


Fig. 4.

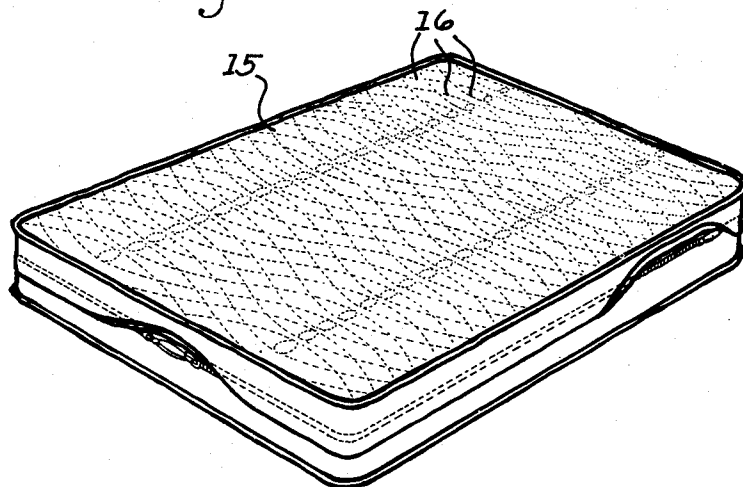


Fig. 5.

Inventor
Nannie C. Armstrong
by *W. Ramsey*
Attorney

UNITED STATES PATENT OFFICE

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MATTRESS COVER

Nannie C. Armstrong, Corvallis, Oreg.

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3 Claims. (Cl. 5—354)

My invention is directed to covers for mattresses, and the like, which are removable to permit them to be cleaned or replaced. In hotels and public institutions, such, for example, as hospitals, it is essential that the mattresses be covered and, preferably, wholly enclosed by a tight fitting envelope. It is desirable that both the upper and lower surfaces be made of some material which is relatively absorbent, and more or less moisture resistant, so that the mattress enclosed by the cover will be protected. At least, the upper surface must afford such protection. It is essential that said covering yield as readily as the mattress, so that it will not lessen the resiliency of the mattress. To this end, I make a mattress cover with one or both faces quilted, of multiple material which provides some absorption of moisture. Means specifically provide breather holes so that the air entrapped within the mattress, and therefore within the covering, may be forced out when the mattress is compressed and replaced when the mattress is fully expanded. I attain this object by making said mattress cover of two halves, which are joined in the main by a so-called "zipper" connection, and means are provided for preventing the connector portions of said "zipper" from completely closing the margin between the two halves, thus to provide breather holes in the sides and at one end thereof.

The details of my invention and the mode of operation thereof are hereinafter described, with reference to the accompanying drawings, in which:

Fig. 1 is a fragmentary perspective view of one corner of a mattress embodying my invention;

Fig. 2 is a similar fragmentary perspective view, showing ends thereof;

Fig. 3 is a detailed sectional view taken on the line 3—3 in Fig. 2;

Fig. 4 is a perspective view of a mattress with my improved cover arranged thereabout, said cover being shown partly lifted to show the manner in which it is arranged for removal; and

Fig. 5 is a perspective view of my mattress cover in place on a mattress, portions of an overhanging flap being shown lifted to disclose the breather holes at one end and at one side of said cover.

A mattress cover 1, embodying my invention is preferably made in two connected halves, the upper half, 2, having a pendant flap 2a extending about two sides and one end thereof. The lower half 3 is not provided with such flap but, as is shown in Fig. 5, the pendant flap lies over the marginal edges of said halves when they are

joined together by a "zipper" connection and secured to the marginal edge of the upper half 2 and beneath the pendant flap thereover. The other half is secured along the marginal edge of the lower half. At one end 5 the two halves are joined together as is shown in Fig. 1.

Followers 6 of the usual type engage the two halves of a "zipper" connection and interlace in the usual and well known manner as they are pulled laterally along the "zipper" connection. At the side 7, shown in Fig. 1, and similarly on the other side, the "zipper" connection terminates at a stop 8 which is spaced a substantial distance from said end 5. This provides an aperture 9 of substantial length which provides a breather hole to the mattress 10 enclosed within the cover.

It is common practice to secure said "zipper" connection to a marginal edge by a tape 11. In the drawings this tape is shown stitched to the respective mattress cover halves by stitching 12. Across the aperture 9 said tape is rolled back to form a bead 13 to provide a substantial breadth to the aperture to permit the passage of air through the latter. This same arrangement is provided for the aperture on the other side and aperture 14 in the end of the mattress cover. The arrangement of the parts is shown most clearly in Fig. 3. It is to be understood that stops, similar to stop 8, will be provided adjacent to the margins of aperture 14. These are not shown in Fig. 2 because the followers 6 overlie them. Said stops limit the length of travel of the followers and tend to prevent them moving out of engagement with the "zipper" connections.

The upper face 15 of the mattress cover, and preferably the lower face thereof, is made multiply and between said plies felted absorbent material is arranged. To prevent said absorbent material from becoming wadded up or displaced, and also to provide an ornamental surface for said mattress cover, I provide patterns of stitching 16, or quilting, at more or less uniform intervals. The provision of a multi-ply surface, with absorbent material arranged therebetween, is old in the art and is thus not illustrated in detail. I call attention to this structure, however, because it is a factor involving my invention. Because of the multi-ply structure and the inner layer of absorbent material, air can pass through these faces only with great difficulty. Thus any air passing into and through the walls of the mattress cover must pass through the sides or an end thereof, and because the areas involved are relatively large and the volume substantial, it is essential that said apertures have a large

cross-sectional area. It is a principal purpose, however, of the mattress cover to protect said mattress completely and if large areas were provided to permit this breathing, these areas would be unprotected. By arranging a pendant flap over the point of joinder, between the upper and lower halves of the mattress cover, and providing the apertures 9 and 14, respectively, lying thereunder, I am able to permit air to flow into and through the mattress cover effectively although the mattress cover appears from the exterior to be imperforate.

When it is desired to remove the mattress cover for cleaning or replacement, this may easily be done by moving the followers from the position they assume, Fig. 5, to a position where they lie adjacent the aperture 9. At this point the cover may be removed from the mattress as easily as if the halves were wholly separate. Likewise, a cover may be arranged about a mattress by partially encasing it in the lower half and then moving the followers from the position adjacent apertures 9 until they lie in opposite sides of the end aperture 14. In the several views, the pendant flap is shown lifted to disclose the details of my invention which would otherwise be concealed. In practice, however, it is to be understood that said flaps overlie the apertures, and the followers at each side, and conceal the "zipper" connections. Said flaps only loosely depend from the upper half and air can pass freely underneath the marginal edge thereof.

I claim:

1. A removable mattress cover, adapted to fit over a mattress, comprising top and bottom panels, side and end walls, one end wall being continuous and the other end and the side walls, being split substantially at their median lines, said split end and side wall portions being secured to the top and bottom panels, respectively, and removably engageable zipper connections secured to the marginal edges of said side and end portions which, when engaged, form said cover into a substantially imperforate envelope about the mattress, said zipper connections terminating short of the ends of said margins, thereby to define apertures through said cover at said ends, the adjacent edges of said tape elements

spanning said apertures, being rolled back to define a bead to enlarge the aperture defined thereby.

2. A removable mattress cover, adapted to fit snugly over a mattress, comprising top and bottom panels, side and end walls, one end wall being continuous and the other end and the side walls, being split substantially at their median lines, said split end and side wall portions being secured to the top and bottom panels respectively, removably engageable continuous joining elements secured to the marginal edges of said side and end portions which, when engaged, form said cover into a substantially imperforate envelope about the mattress, said joining elements terminating short of the ends of said margins, thereby to define apertures through said cover at said ends, the adjacent edges of said tape elements spanning said apertures being rolled back to define a bead to enlarge the aperture defined thereby, and a pendant flap extending from and joined to said side and end walls respectively, extending free of but overlying said joining elements and the apertures thus defined.

3. A removable mattress cover, adapted to fit snugly over a mattress, comprising top and bottom panels, side and end walls, one end wall being continuous and the other end and the side walls, being split substantially at their median lines, said split end and side wall portions being secured to the top and bottom panels, respectively, removably engageable zipper connections secured to the marginal edges of said side and end portions which, when engaged, form said cover into a substantially imperforate envelope about the mattress, said zipper connections terminating short of the ends of said margins, thereby to define apertures through said cover at said ends, the adjacent edges of said tape elements spanning said apertures being rolled back to define a bead to enlarge the aperture defined thereby and a pendant flap extending from and joined to said side and end walls respectively, extending free of but overlying said zipper connections and the apertures thus defined.

NANNIE C. ARMSTRONG.