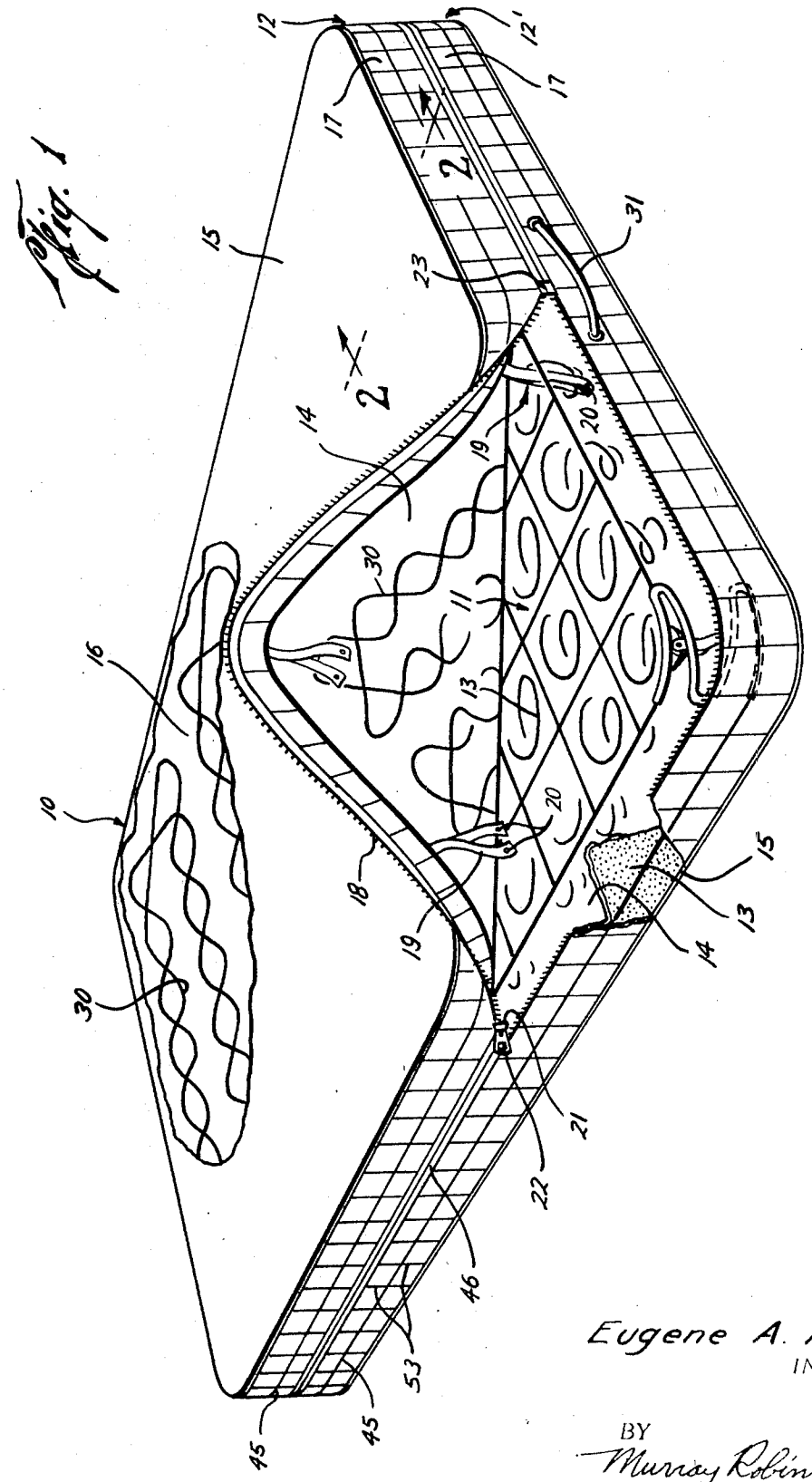
June 1, 1971 E. A. MARSICO 3,581,322

WATERPROOF MATTRESS

Filed March 3, 1969 2 Sheets-Sheet 1



Eugene A. Marsico
INVENTOR.

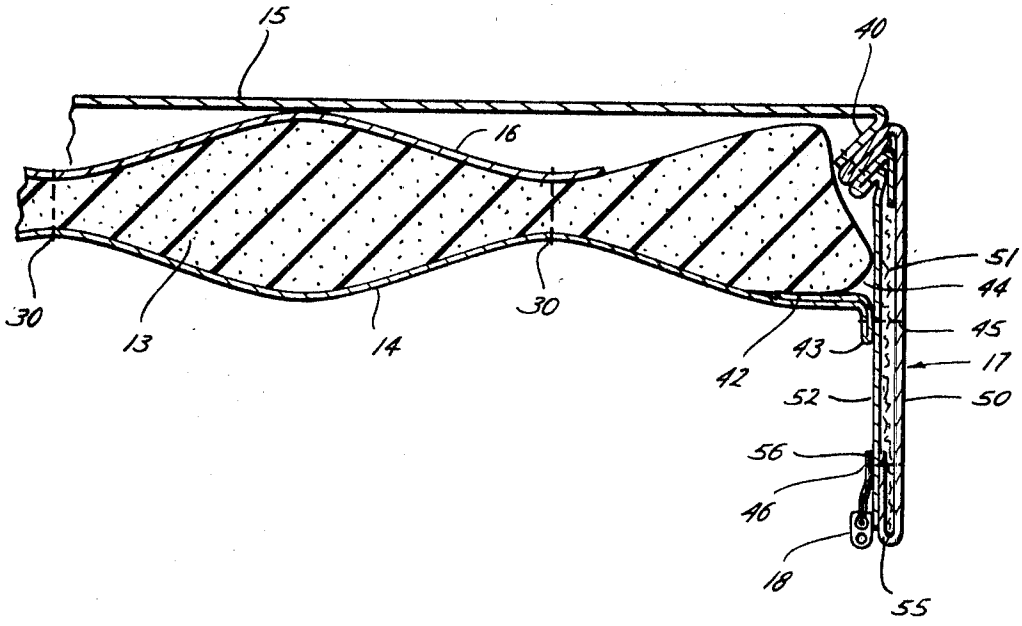
BY
Murray Robinson
ATTORNEY

June 1, 1971 E. A. MARSICO 3,581,322

WATERPROOF MATTRESS

Filed March 3, 1969 2 Sheets-Sheet 2

Fig. 2



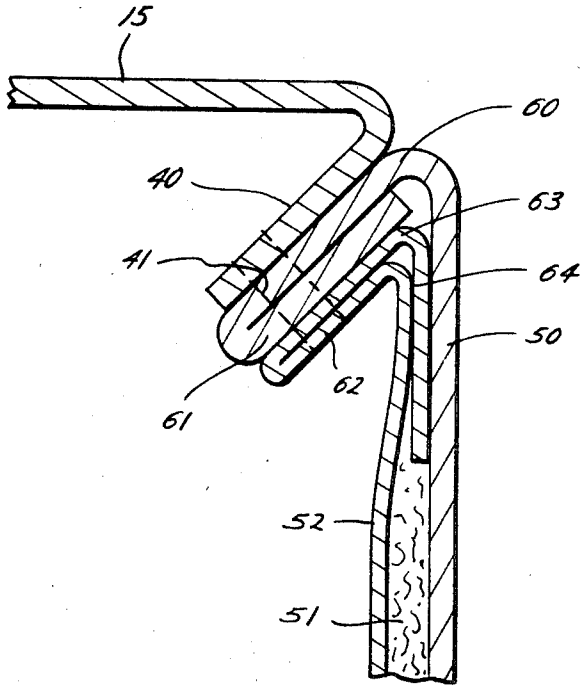


Fig. 3

Eugene A. Marsico
INVENTOR.

BY
Murray Robinson
ATTORNEY

United States Patent Office 3,581,322 Patented June 1, 1971

3,581,322

WATERPROOF MATTRESS

Eugene A. Marsico, % Denison Mattress Factory, 1001–31 Owing St., Denison, Tex. 75020

Filed Mar. 3, 1969, Ser. No. 803,724
Int. Cl. A47c 23/00
U.S. Cl. 5—351 5 Claims

ABSTRACT OF THE DISCLOSURE

A mattress may comprise an inner spring and two panels above and below spring, each panel releasably anchored to the spring at its edge, each panel having a half boxing, the half boxings being releasably connected as by a zipper. Each panel may include an inner cover, a resilient urethane foam pad, and an outer scrim, quilted together with the cover and scrim in tension and the paid in compression, rendering the panel laterally rigid while transversely flexible. Each panel may further include an imperforate, waterproof outer cover attached at its periphery by a sealed inner seam to the outer edge of the half boxing, the latter also being waterproof, the half boxing being attached at its midline to the periphery of the inner cover. The half boxing may be a padded, quilted laminate with half of the zipper attached to its inner edge.

BACKGROUND OF THE INVENTION

(1) Field of the invention

This invention relates to mattresses.

(2) Description of the prior art

This invention is an improvement upon the mattress disclosed in my United States Pat. 3,287,749 issued Nov. 29, 1966, which discloses a mattress including an inner spring and two panels respectively above and below the spring, each panel releasably anchored to the spring at its edge, each panel having a half boxing, the half boxings being releasably connected by a zipper. Each panel may include an inner cover, a foam rubber pad, and an outer cover quilted together with the covers in tension and the pad in compression, rendering the panel laterally rigid while transversely flexible. The outer peripheries of the covers are stitched together and to the outer edge of the half boxing. When such panels are used in hospitals and other institutions or places where it is desired that same be waterproof, difficulty is experienced in sealing the holes in the outer cover where the stitches of the quilting pass through the outer cover. In addition, the seam at the juncture of the outer peripheries of the covers with the outer edge of the half boxing, usually covered with binding tape, is extremely difficult to sterilize. It is an object of the invention to overcome these difficulties without destroying the other desirable features of said prior patented mattress.

SUMMARY OF THE INVENTION

According to the invention the outer cover of each panel is unconnected to the panel except at the half boxing. The outer cover is made of waterproof material and is imperforate to its outer periphery where it is connected to the half boxing. To effect lateral rigidity of the panel, a scrim is placed over the pad inside the outer cover. The scrim and pad and inner cover are quilted together to place the scrim and inner cover in tension and the pad in compression. The scrim not only enables the panel to be rigidified laterally as in the prior patent but also reduces the friction between the presser foot of the quilting machine and the pad, which friction might otherwise cause overheating of the pad and the machine. The scrim is cut

off beyond the outer periphery of the quilting and is not peripherally connected to either the inner or outer covers or the half boxing. The half boxing is connected at its outer edge to the periphery of the outer cover by an inturned sealed seam. The half boxing is provided with a half zipper at its inner edge. The inner cover's outer periphery is preferably connected to the half boxing near its midline, at the inner edge of the pad. This improves the fit of the inner cover to the spring and, together with the fact the scrim is unconnected to the half boxing and outer cover, facilitates formation of the sealed inner seam between the outer cover and half boxing. The half boxings preferably each include a waterproof outer skirt, and a padding of resinated cotton linter felt held therewithin by a liner, the skirt, padding and liner being quilted together to render the half boxing laterally rigid and transversely flexible. The outer cover and skirt are preferably waterproof by impregnation with vinyl plastic which forms a seal between the outer cover and skirt when they are stitched together.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective of a mattress according to the invention with parts broken away to show the interior;
FIG. 2 is a section taken at plane 2—2 of FIG. 1; and
FIG. 3 is an enlarged view of a part of FIG. 2.

DESCRIPTION OF PREFERRED EMBODIMENTS

Referring now to FIG. 1 there is shown a mattress **10** comprising an inner spring **11**, an upper panel **12**, and a lower panel **12'**. The two panels are shown to be identical.

Each panel includes a urethane foam pad **13**, an inner cover **14**, waterproof, imperforate to its periphery outer cover **15**, a scrim **16**, a half boxing **17**, a zipper (slide fastener) half **18**, and pairs of anchor straps **19**, the latter being provided with quick engageable and releasable connectors such as snaps **20**, whereby the panels can be anchored to the inner spring as described more fully in the aforesaid patent. The two panels are releasably connected by the slide fastener whose halves may be quickly connected and disconnected by operator **21** to which is hingedly connected a handle **22**. The starter assembly **23** enables initial connection of the fastener at one end thereof.

The scrim, pad, and inner cover are quilted together by lines of stitching as shown at **30**. As described in the above mentioned patent, the areas of the scrim and inner cover each equal the vertical projections of the part of the horizontal pad over which they lie prior to quilting, so that the scrim and inner cover are placed in tension and the pad in compression. The quilting for the lower panel is omitted from the drawing to avoid confusion with the coils of the inner spring, the details of which are set forth in the aforesaid patent. Each panel includes a handle **31**.

As best shown in FIGS. 2 and 3, the outer cover **15** has an inturned edge **40** which is connected to the outer edge of half boxing **17** by stitches **41**. The inner cover has an inturned edge **42** forming a double thickness at the periphery **43** of the inner cover where it is connected to the midline of the half boxing adjacent inner edge **44** of the pad **13** by stitches **45**. The slide fastener half **18** is connected to the half boxing by stitches **46**.

The half boxing **17** is preferably laminated, including a skirt **50**, resinated felt padding **51**, and liner **52** which are quilted together by vertical lines of stitching **53** (see FIG. 1) and the horizontal stitching **45**. As with the inner cover, pad, and scrim, the quilting places the liner and skirt in tension and the padding in compression, rendering the half boxing laterally rigid while transversely flexible. At the einner edge of the half boxing the edge **55** of the skirt is folded in to provide a double thickness. The

stitching **46** passes through said double thickness, the inner edge of liner **52**, and the tape **56** on which is mounted slide fastener half **18**.

As best shown in FIG. **3**, the outer edge of skirt **50** is turned in and folded double at **60, 61**. Likewise, the outer edge of liner **52** is turned in and folded double at **62, 63, 64**. The stitching **41** passes through said doubled portions and the edge **40** of the outer cover. The stitching draws together tightly the vinyl plastic impregnated outer cover and skirt forming a sealed, waterproof, inner seam.

The scrim **16**, inner cover **14**, anchor straps **19** and liner **52** may be made of cotton cloth, which need not be washable since they are totally enclosed and protected by the outer cover **15** and skirt **50** which are waterproof. The outer cover **15**, handles **31**, and skirt **50** may be made of preshrunk cotton cloth impregnated with plastic to render it waterproof. The slide fasteners and snap fasteners are made of nonrusting material. Ordinary felt padding can be used in place of the urethane foam and the resinated cotton linters; some degree of resilience in desirable however not only for comfort but to facilitate the lateral rigidification of the panels and half boxings by quilting.

It will be apparent that the quilting of the inner cover, pad, and scrim of each panel provide the necessary lateral rigidity to keep the panel from wrinkling up on the inner spring when in use, and that this in turn prevents wrinkling of the outer cover which is peripherally secured thereto. At the same time the waterproof outer cover prevents water from penetrating the panel through the holes formed by quilt stitching **30**. The inturned sealed seam at the juncture of the outer cover and skirt prevents water entrance at this seam.

While a preferred embodiment of the invention has been shown and described, modifications thereof can be made by one skilled in the art without departing from the spirit of the invention.

I claim:

1. A mattress panel comprising:

a pad, an inner cover inside the pad, and a scrim outside the pad, said pad and inner cover and scrim being quilted together to place the scrim and inner cover in tension and the pad in compression,

a half boxing secured to the periphery of the inner cover, said half boxing including a waterproof outer skirt, and

a waterproof, imperforate outer cover overlying the scrim and peripherally secured to the skirt but unconnected to the scrim where the scrim is quilted to the pad and inner cover.

2. A mattress panel comprising a pad, an inner cover, and a scrim, quilted together to place the scrim and inner cover in tension and the pad in compression, a half boxing secured to the periphery of the inner cover, and a waterproof, imperforate outer cover overlying the scrim and peripherally secured to the half boxing, the half boxing being waterproof on its exterior surface, said waterproofing of said outer cover and half boxing being effected by plastic forming a plastic coating on the material of said outer cover and half boxing, said half boxing and outer cover each having an inturned edge at their place of securement one to the other, said inturned edges being stitched together to form an inner seam, said stitching drawing said inturned edges of said half boxing and outer cover tightly together to cause said plastic coatings to form a waterproof seal therebetween.

3. Combination of claim **2** wherein the half boxing includes a padding, a liner, and a skirt, quilted together to place the liner and skirt in tension and the padding in compression, the quilting including lines of stitching parallel to the edge of the half boxing serving also to connect the periphery of the inner cover to the half boxing adjacent the midline thereof.

4. Combination including a pair of panels according to claim **2**, and an inner spring, each panel including anchor means releasably securing the panel to the periphery of the inner spring, each panel including a slide fastener means releasably securing said half boxings together, said half boxings directly drawing said inner covers to said spring.

5. Combination of claim **2**, said scrim being unconnected at its periphery relative to said outer cover and half boxing, said inner cover being connected to said half boxing at a place separate from the place of securement of said outer cover to said half boxing.

References Cited

UNITED STATES PATENTS

3,287,749 11/1966 Marsico ---------- 5—351

BOBBY R. GAY, Primary Examiner

J. C. MITCHELL, Assistant Examiner