Dec. 20, 1949 G. L. GOOLSBEE 2,491,557

MULTIPLE AIR CELL MATTRESS

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FIG 1

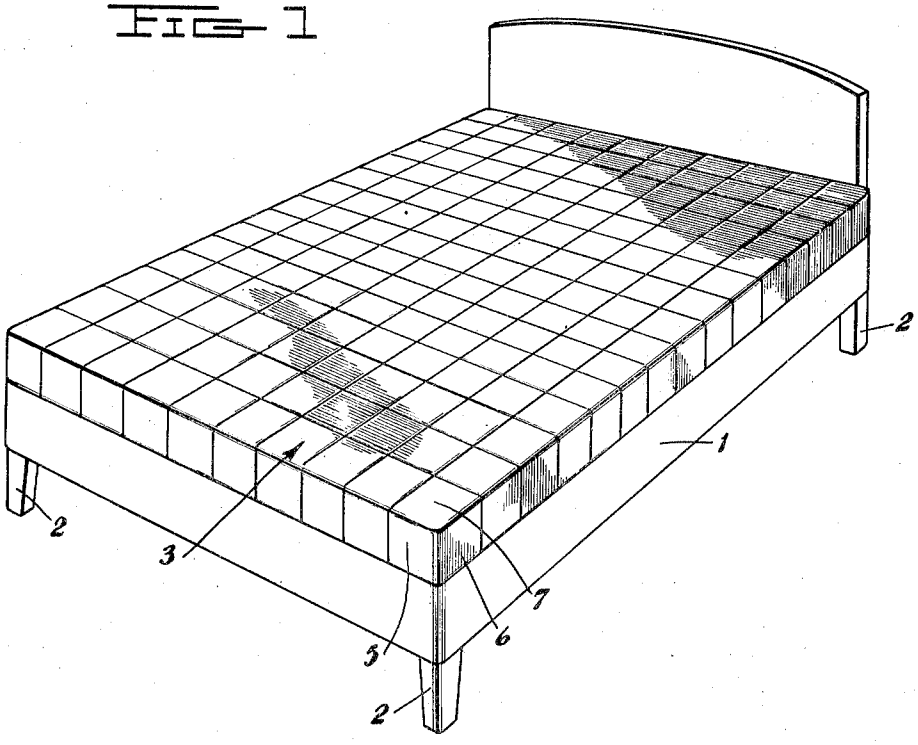
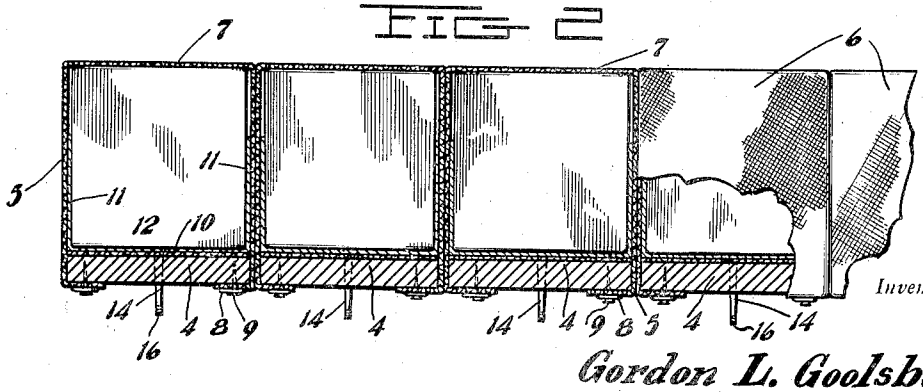


FIG 2



Inventor

Gordon L. Goolsbee

By Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

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FIG 3

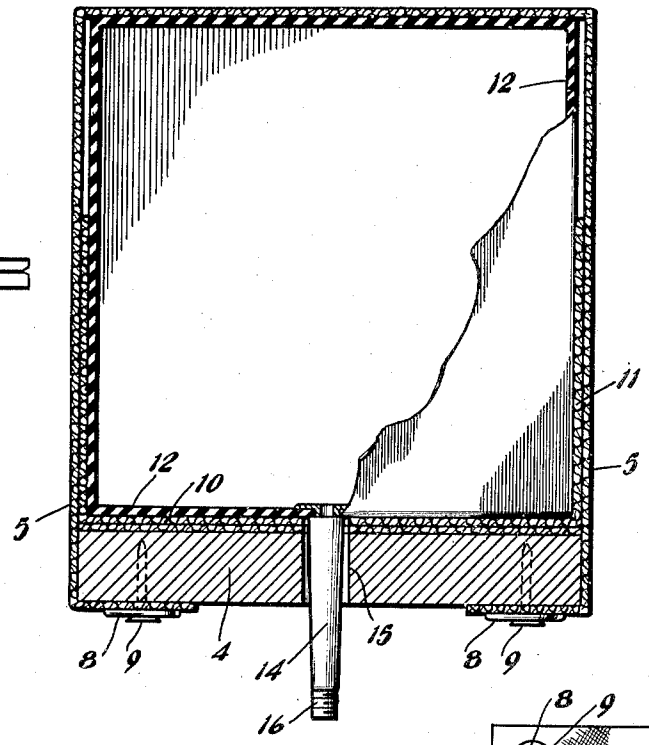


FIG 5

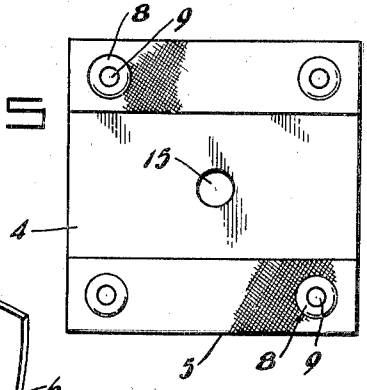
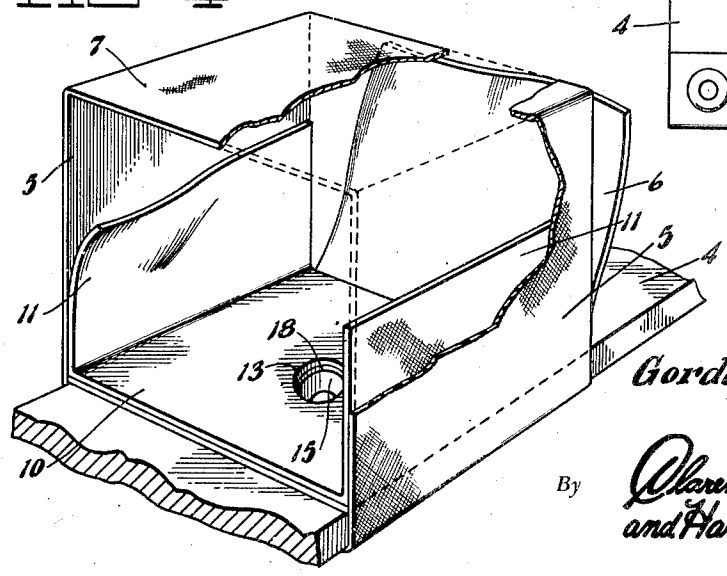


FIG 4



Inventor

Gordon L. Goolsbee

By *Clarence A. O'Brien and Harvey B. Jacobson*

Attorneys

Patented Dec. 20, 1949 2,491,557

UNITED STATES PATENT OFFICE

2,491,557

MULTIPLE AIR CELL MATTRESS

Gordon L. Goolsbee, Beaumont, Tex.

Application March 12, 1946, Serial No. 653,848

1 Claim. (Cl. 5—348)

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This invention relates to improvements in mattresses, and more particularly to a multiple air cell mattress.

An object of the invention is to provide an improved multiple air cell mattress which will be provided with a plurality of inflatable rubber air cells suitably supported upon transversely extending slats adapted to be placed transversely of a bed upon the side rails thereof.

Another object of the invention is to provide an improved multiple air cell mattress, said mattress being formed with a plurality of rubber air cells which may be inflated equally, or the air may be partially valved from certain cells to provide a different cushioning effect over that area of the mattress which has the cells containing the lesser air pressure.

A further object of the invention is to provide an improved multiple air cell mattress which will comprise a plurality of fabric casings suitably supported upon transverse slat members, and having means for supporting rubber air cells therein, and a sealing strip interposed between each air cell on its lower and opposite sides.

A still further object of the invention is to provide an improved multiple air cell mattress which will be formed with a plurality of rubber air cells suitably supported in fabric casings and secured in transverse arrangement on transversely extending slats adapted to be placed upon the side rails of a bed, said mattress being highly efficient and healthful for sleeping purposes, and relatively inexpensive to manufacture and produce.

Other objects will appear as the description proceeds.

In the accompanying drawings which form a part of this application,

Figure 1 is a perspective view of a bed supporting a mattress thereon formed in accordance with the instant invention;

Figure 2 is a vertical sectional view taken through a number of air cells showing the construction of the pockets for containing the air cells, and the method of attaching said pockets and air cells to a slat member;

Figure 3 is an enlarged transverse sectional view of a single air cell showing its casing, the same being attached to a slat member with the valve stem of said air cell extending through an opening in said slat member;

Figure 4 is a perspective view, partially broken away showing the fabric casing with the air cell removed therefrom, and showing an added base or bottom strip in contact with the upper surface of the supporting slat, and

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Figure 5 is a bottom view of the slat showing the securing means attached thereto for securing the fabric container to the slat.

Like characters of reference are used throughout the following specification and the accompanying drawings to designate corresponding parts.

In carrying out the invention, there is provided an improved multiple air cell mattress which will be adapted to be positioned on and supported by a bed 1 having suitable legs 2.

The improved multiple air cell mattress generally denoted by the reference numeral 3 will comprise a plurality of similarly constructed fabric casings which are secured in line to a series of slats 4, the same being adapted to be supported upon the side rails (not shown) of the bed 1.

The fabric containers for the air cells comprise a plurality of substantially rectangular shaped casings having oppositely disposed sides 5 and 6, and a top 7. The opposite sides 5 of the casing are extended downwardly below the bottom of the said casing, and are adapted to extend over the opposite sides of the slats 4 and to be turned inwardly, and to be secured to the bottom of said slats 4 by means of the cup-shaped washers 8 and nails or screws 9.

A fabric sealing strip 10 wil be disposed upon the upper surface of the slat 4, and will be provided with the upwardly extending side portions 11, serving as a sealing means for preventing the live rubber cell 12 from becoming displaced when the air pressure is admitted to the same. An opening 13 will be formed centrally through the bottom portion of the sealing strip 10 to permit the valve stem 14 to extend therethrough, and downwardly through the aperture 15 formed through the said slat member 4. The outer end of the valve stem will be threaded as at 16, and may be pinched between the fingers to close it while removing the air pump (not shown) and while screwing on the valve cap.

The sides 6 extend over the insert or sealing strip 10, either end of which is perforated so as to go over and pass the insert and be fastened on the opposite side thereof.

It will be understood that a number of these casings with the live rubber air cells supported within the same will be secured to the slats 4 in transverse order, so that a plurality of slats of any desired material supporting the plurality of air cells with their casings may be readily placed upon the side rails of a bed to form a mattress for the required bed.

In ordinary mattresses, and in ordinary single cell air mattresses it is impossible to change the resiliency of certain portions of the mattress, and it is to accomplish this purpose that applicant has devised the improved multiple air cell mattress, wherein air may be valved out of the cells at whatever section of the mattress it is required to have additional resiliency.

Conversely, if it is desired to have certain areas of the mattress more firm than other areas, additional air may be let into those cells adjacent the portion of the mattress where greater rigidity or less flexibility is desired. This added rigidity is often required in the center portion of a mattress underlying the hips of a sleeper when on the bed, for the treatment of those suffering from sacroiliac ailments.

From the foregoing description it will be seen that there has been devised a highly efficient form of multiple air cell mattress which will immediately lend itself to use with varying sizes of beds, and in which various degrees of support may be controlled over the surface area of the said mattress.

While the preferred embodiment of the instant invention has been illustrated and described, it will be understood that it is not intended to limit the construction of the invention thereto, as many minor changes in detail of construction may be resorted to without departure from the spirit of the invention.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is:

A mattress for a bed comprising elongated slats, a plurality of aligned juxtaposed fabric casings disposed on the upper surface of each

slat, said casings including top sections and opposing first and second pairs of side sections, the first pair of said side sections being extended below the slats and having their lower ends inturned and secured to the under surface of the slats, the second pair of said side sections having their lower ends inturned and seated on the upper surface of the slats, inflatable rubber cells, said cells being seated on the inturned lower ends of the second pair of side sections and housed within the casings, valve stems carried by said cells and inserted through said slats, and fabric sealing strips interposed between said inturned lower ends of the second pair of side sections and the bottom of the rubber cells, said sealing strips having oppositely disposed ends extending upwardly in sealing contact with the first pair of said side sections.

GORDON L. GOOLSBEE.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
540,725	Craig	June 11, 1895
558,605	Gimbel	Apr. 21, 1896
1,221,969	Chandler	Apr. 10, 1917
1,420,990	Friede	June 27, 1922
1,928,625	Sampson	Oct. 3, 1933
2,415,150	Stein	Feb. 4, 1947

FOREIGN PATENTS

Number	Country	Date
122,806	Great Britain	Feb. 6, 1919