Nov. 7, 1950 M. E. TAUSS 2,529,268

INNERSPRING CONSTRUCTION FOR MATTRESSES, CUSHIONS, AND THE LIKE

Filed Nov. 3, 1949

Fig. 1.

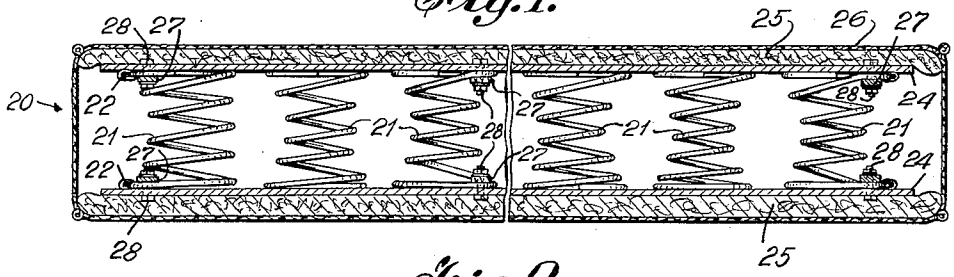


Fig. 2.

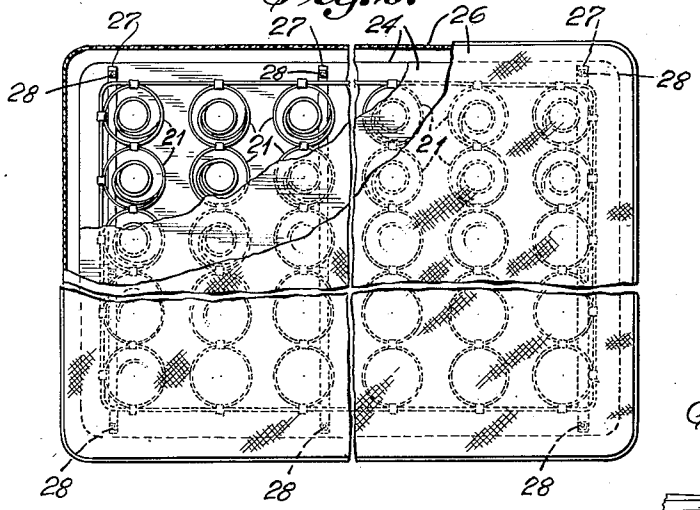
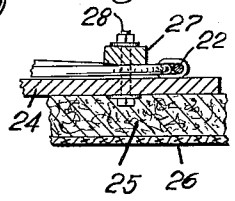


Fig. 3.



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Patented Nov. 7, 1950

2,529,268

UNITED STATES PATENT OFFICE

2,529,268

INNERSPRING CONSTRUCTION FOR MATTRESSES, CUSHIONS, AND THE LIKE

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Application November 3, 1949, Serial No. 125,281

1 Claim. (Cl. 5—351)

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This invention relates to an innerspring construction for mattresses, cushions, box springs, upholstered furniture, and the like. It may be applied wherever springs are covered with padding to provide a positive partition between the springs and the padding in order to protect both the springs and the padding and such covering as may be provided to enclose the padding. But although the invention has a wide range and variety of applications, it will herein be described primarily in connection with its application to innerspring mattresses since the principle of its application to mattresses may apply with equal force to cushions, box springs, upholstered furniture, and the like.

The principal object of this invention is the provision of an innerspring construction wherein a positive separation is provided between the springs and the padding covering said springs, said separation being achieved through the instrumentality of a partition board which is disposed between the springs and the padding. The problem of preventing the springs from poking up through the padding and the covering for said padding, and the corollary problem of preventing the padding from falling into and between the springs, are well known to the industry. Efforts have been made both within and without the industry to solve these problems, but without appreciable success. It is customary to introduce a sheet of burlap or similar material between the springs and the padding with the hope, but not expectation, that this will prevent the springs from penetrating the padding and the padding from falling through the springs. What generally happens is that the burlap is worn away in spots by the springs and the padding is thereby enabled to fall through the burlap and into the springs.

The present invention comprises the use of more substantial material than burlap to separate the padding from the springs. More specifically, the invention calls for the interposition of a board between the springs and the padding, fiber, plywood, and pressed wood being illustrative of the materials of which the board may be made. The board should not be so stiff that it will not flex or yield to the weight of a person lying upon the mattress. Fiber board which is one-sixteenth or three-thirty-seconds of an inch thick will be found to perform very admirably. It is sufficiently strong to prevent the springs from poking through it and it is sufficiently flexible to make for great comfort.

One of the difficulties involved in the use of

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a burlap covering for the springs of an innerspring mattress is the fact that normal use of the mattress causes relative frictional movement between the burlap and the springs. It is this relative movement that enables the springs to wear through the burlap. No way has heretofore been found of preventing such relative movement between the burlap and the springs, and hence the problem will remain as long as burlap is used. In the present invention, on the other hand, relative movement between the springs and the board can very readily be avoided so that no opportunity is given to the springs of wearing their way through the board.

Still another object of this invention is the provision of an innerspring construction of the character described wherein the board or boards are applied to conventional innersprings, that is, innersprings which include a conventional framework to hold the springs in place. In this form of the invention there is no need to modify conventional innersprings in any way, and all that need be done is to interposition the board or boards between the springs and frame of said innersprings and the padding.

A further object of this invention is the provision of an innerspring construction of the character described wherein the springiness or resilience thereof is controlled by means of one or more boards of the character described. It is well known that conventional innerspring mattresses are frequently uncomfortable for many persons and they find it necessary to dampen or subdue the springiness of such conventional mattresses by means of boards placed either on top of the mattress or between the mattress and a box spring. The present invention obviates the need of such boards since it provides similar boards between the padding and the springs. In a reversible mattress, two such boards would be provided, one on top of the springs and the other below them. This, of course, would be the equivalent of providing one board on top of a conventional mattress and a second board between said conventional mattress and a box spring.

A preferred form of this invention is shown in the accompanying drawing in which

Fig. 1 is a vertical section through a mattress or the like which embodies the constructional features of this invention.

Fig. 2 is a top view thereof, partly broken away and in section to expose the constructional features of said mattress.

Fig. 3 is an enlarged fragmentary sectional

view showing how one of the boards is fastened to the springs of the mattress.

The preferred form of this invention calls for the use of fiber board approximately three-thirty-seconds of an inch thick. This type of board is very strong and it is sufficiently flexible so that adequate flexing thereof and of the springs will take place when the mattress is used in conventional manner.

Fiber board which is three-thirty-seconds of an inch thick is preferred above all other boards, but plywood, say one-eighth of an inch thick, or pressed wood of similar thickness, or any other suitable board material may be utilized if and as desired.

In the preferred form of this invention, a conventional innerspring **20** is provided which comprises a plurality of coil springs **21** and top and bottom metal frames **22** to which some of said coil springs are fastened. This innerspring is conventional in every respect. A pair of boards **24** are affixed to the two sides of said innerspring in the manner shown in the drawing. Padding **25** is placed atop said boards and a covering **26** encloses said padding. More specifically, boards **24** are fastened to the innerspring **20** by means of slats or bars **27** and bolts or rivets **28**. Frames **22** of the innerspring are disposed between slats **27** and boards **24** and fastening members **28** are then employed to fasten said slats to said boards. Slats **27** may engage frames **22** alone or they may also engage springs **21** themselves. But in either case they are used to fasten the inner spring and the boards together.

Again the foregoing is illustrative. Slats or bars **27** and bolts or rivets **28** are simply preferred means for fastening the innerspring and the boards together. Other means may be used to equal advantage and possibly even to better advantage. Instead of using slats or bars, rods or stripping may be used. Instead of using bolts or rivets, clips or tie strings or other fastening means may be employed to fasten the slats, bars, rods, or stripping to boards **24**.

The invention is broad and the specific means and method of employing or executing the invention above described and shown in the drawing should be construed as being illustrative rather than limitative of the invention. The big feature of the invention is the interposition of a board or boards between the springs and the padding, and the specific nature of the board and the means for holding the board in place are matters purely of preferences and choice. Hence, the form of the invention which is specifically shown in the drawing may be modified in many ways and other forms may be provided within the broad scope and spirit of the invention.

I claim:

An innerspring construction for mattresses, cushions and the like, comprising a plurality of coil springs, a frame securely fastened to the top of some of said springs, a second frame securely fastened to the bottom of some of said springs, a plurality of bars disposed against said frames, on the inside thereof, a pair of relatively flexible fiber-boards disposed adjacent said frames on the outside thereof, and fastening members fastening some of the bars and one of the fiber-boards to one of said frames and additional fastening members fastening the rest of said bars and the second fiber-board to the other of said frames.

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