J. F. HAMMRICH.

BED SPRING.

APPLICATION FILED JULY 8, 1918.

1,286,607.

Patented Dec. 3, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

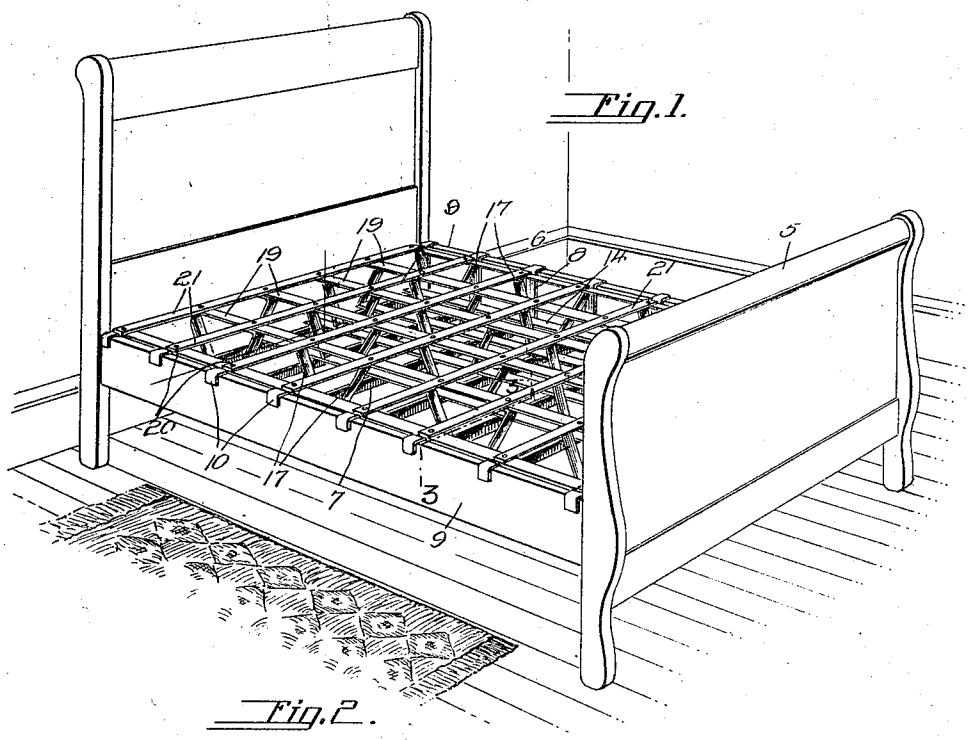
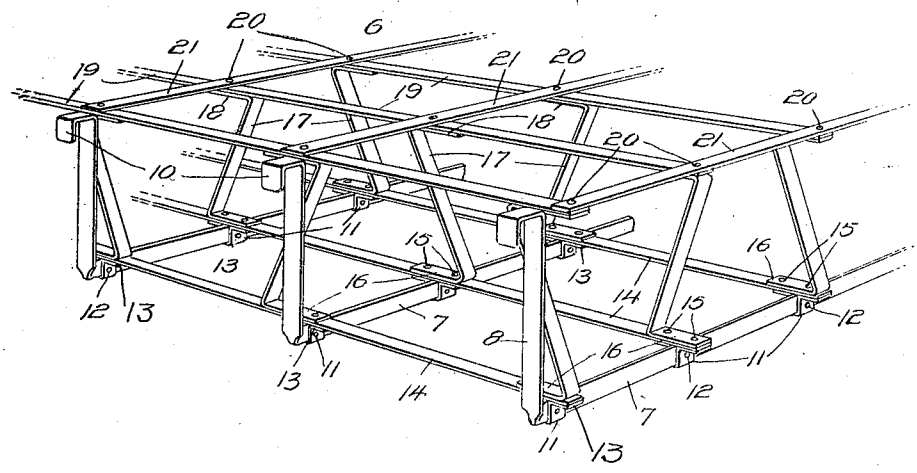


Fig. 2.



Witnesses.

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2 SHEETS—SHEET 2.

Fig. 3.

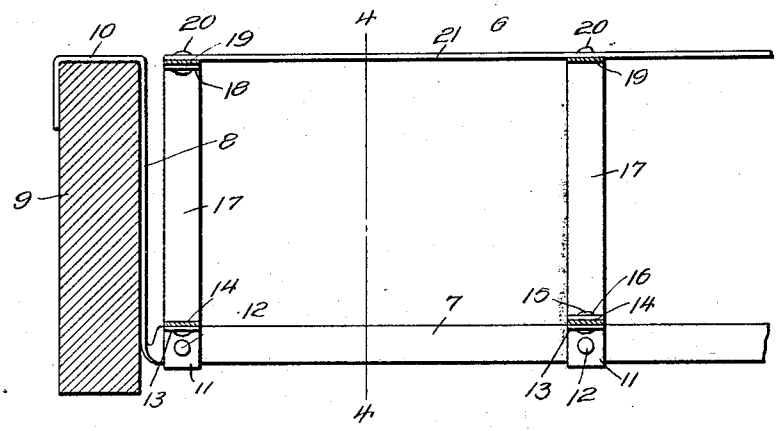


Fig. 4.

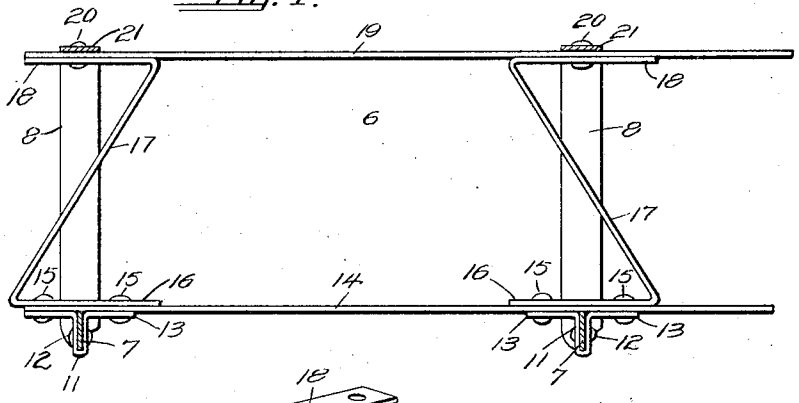


Fig. 5.

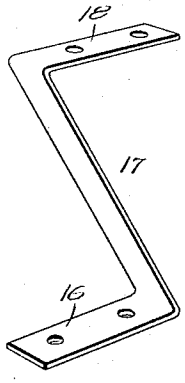
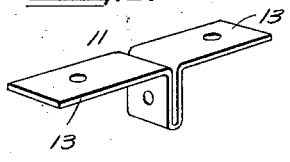


Fig. 6.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOSEPH F. HAMMRICH, OF CLEVELAND, OHIO.

BED-SPRING.

1,286,607. Specification of Letters Patent. Patented Dec. 3, 1918.

Application filed July 8, 1918. Serial No. 243,806.

To all whom it may concern:

Be it known that I, JOSEPH F. HAMMRICH, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Bed-Springs, of which the following is a specification.

This invention relates to an improved construction of bed bottoms.

In carrying out the invention it is my purpose to produce a bed bottom having means whereby the same may be easily and quickly arranged on the side rails of a bedstead, the said bottom including springs for imparting a resiliency thereto, but the construction being such that great strength and rigidity is afforded to the parts comprising the same so that lateral or longitudinal movement of such parts will be effectively prevented.

It is also my purpose to produce a bed bottom in which the use of the ordinary coil springs for supporting the mattress is dispensed with, springs of a novel construction, embodying great strength and endurance being employed, the said springs holding the top and bottom elements of the construction in proper spaced relation with each other, means which materially reinforce the construction being employed for holding the springs in proper position and preventing lateral or longitudinal movement of the parts comprising the construction.

It is a still further object of the invention to produce a bed bottom wherein the construction is simple, embodying great strength and durability, but which may be cheaply manufactured and marketed.

The foregoing objects, and others which will appear as the nature of the invention is better understood, may be accomplished by a simple construction, combination and operative arrangement of parts as illustrated by the accompanying drawings, in which:

Figure 1 is a perspective view showing the arrangement of the improvement on a bedstead;

Fig. 2 is a perspective view of the improvement detached;

Fig. 3 is a transverse sectional view approximately on the line 3—3 of Fig. 1;

Fig. 4 is a longitudinal sectional view approximately on the line 4—4 of Fig. 3;

Fig. 5 is a perspective view of one of the springs; and

Fig. 6 is a perspective view of one of the clips.

In the drawings like reference characters indicate corresponding parts throughout.

Referring now to the drawings in detail an ordinary bedstead is indicated by the numeral 5 and my improved bottom therefor is indicated in general by the numeral 6.

The bottom is preferably wholly constructed of metal, each of the separate elements constituting the same being similarly constructed. This is a distinct advantage in reducing the cost of the construction as well as rendering the parts thereof interchangeable.

The base and supports for the bottom, in the device illustrated by the drawings comprise eight similarly formed members, it being, of course, to be understood that a less or a greater number of these members may be employed if desired. Each of the members is constructed from a single strip of suitable material, metal preferred, and each constitutes a bottom portion in the nature of a slat 7 having its ends given a half twist to provide the sides 8, the said sides of course being arranged at a right angle with respect to the slats so that the edges of the slats are presented upwardly when the device is arranged upon the bedstead and the outer faces of the sides or what may be termed the arms 8 are presented to the sides of the rails 9 of the bedstead. The upper ends of the arms are bent upon themselves outwardly at a right angle and from thence downwardly, thus forming the ends of the arms with what may be termed hooks 10, and these hooks are designed to be arranged over the side rails 9 of the bedstead and supported from said side rails.

At desired spaced intervals on each of the portions of the supporting members that I have referred to as the slats 7 I arrange clips 11. Each of the clips comprises a substantially U-shaped body, the sides of which being properly spaced to contact with the opposite faces of the slats 7, the said clips being secured to the said slats by rivets, bolts or similar elements 12 passing through both the clips and slats. It will be noted, by reference to the drawings that the clips are arranged in alining series, being, as previously stated spaced an equal distance from each other and on the slats 7. The side members of the clips have their upper ends bent

outwardly at a right angle therefrom, providing ears 13. The ears are arranged preferably flush with the upper edges of the slats 7 on which the respective series of clips are secured, and arranged over the ears of all of the series of clips 11 are straight bars 14, the said bars being, of course, of the desired length to be snugly received between the end rails or the head and foot board of the bedstead, and the ends of the bars 14 terminate with the ends of the outer ears on the end slats of the support. The bars 14 are secured to the ears by rivets, bolts or the like, indicated by the numerals 15.

By reference to the drawings it will be seen that six of the longitudinal bars 14 are employed, and consequently six clips are secured on each of the slats 7, the outer clips being arranged just inwardly of the bend between the slats 7 and the arms 8 thereof.

The springs are each similarly constructed, being formed from a single piece of suitable resilient material and being substantially Z-shaped. The lower horizontal arm 16 of each of the springs 17 rests on the bars 14 and is secured to the bars and to the ears of the clips 11 by certain of the elements 15 which connect the bars to the ears of the clips. The upper arms of each of the springs 17 are indicated by the numerals 18 and are arranged only slightly below the angle ends of the arms which provide the upper members of the hooks 10. By reference to the drawings it will be noted that the springs 17 are reversely arranged, that is, the oppositely disposed pairs of springs have their angle portions directed inwardly toward each other. This adds to the strength of the construction, as such arrangement of the springs, to a certain extent provides reinforcements for each other, and for the upper portion of the bottom which will now be described.

On the upper arms 18 of each of the series of springs 17 are secured bars 19, of a similar size and length to that of the lower bars 14. The bars 19 are secured to the arms 18 of the springs by rivets or the like, and these securing elements which are indicated by the numerals 20 also connect to the upper bars 18 transverse slats 21. The flat faces of the slats 21 are arranged on the bars 19, so that the edges of the said slats 21 are horizontally disposed and are at a right angle with respect to the vertically disposed faces of the slats 7. The slats 21 hold the bars 19 and the springs 17 against lateral or tilting movement in either direction, the particular arrangement of the springs holding the bars 19 against movement in a longitudinal direction. The springs 17 are of a gage to afford the desired resiliency to a mattress which is arranged on the slats 21. The construction, as previously stated, is simple. The device may be cheaply manufactured and marketed.

As previously stated, the bed bottom is constructed of metal, and the elements constituting the same embody a natural amount of resiliency. The construction is such that the lower portion of the bottom and the sides thereof are substantially rigid, while the top thereof, that is, the bars 19 and 21 themselves embody, as stated, resiliency, and being supported only upon the springs afford a desired amount of yieldability to the construction.

Having thus described the invention, what is claimed as new, is:—

1. In a bed bottom, substantially U-shaped supports consisting of narrow bars having hooked ends and having the horizontal portion of the U arranged on edge, U-shaped clips embracing said portion and having ears at their upper ends extending laterally in the horizontal plane of the upper edge of said portion, longitudinal bars on said ears and secured thereto, Z-shaped springs secured on said bars, upper bars secured to the upper portions of said Z-shaped springs, and transverse slats secured to said upper bars and said springs.

2. In a bed bottom, supports comprising slats which are twisted to a half turn adjacent the ends thereof providing arms arranged at a right angle with respect to the slats, hooks on the outer ends of said arms, U-shaped clips on the slats, means for connecting the clips to the slats, oppositely extending angular ears on the ends of the clips, longitudinal bars arranged over the upper edges of the slats and on said ears and secured to said ears, Z-shaped springs arranged in reverse pairs one over each of the slats and connected to the longitudinal bars and to one of the ears of each of the clips, upper longitudinal bars on the upper ends of the springs, transverse slats connecting said upper longitudinal bars, and means connecting said slats and upper bars to said springs.

In testimony whereof I affix my signature.

JOSEPH F. HAMMRICH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."