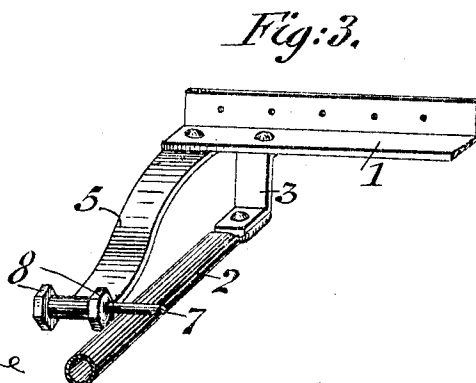
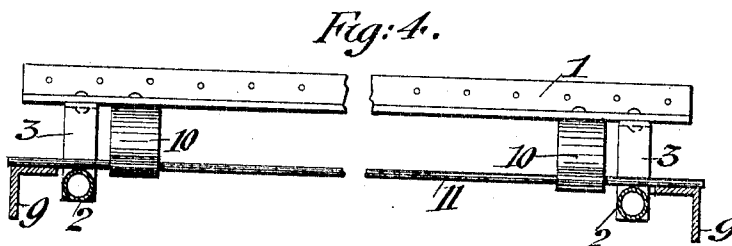
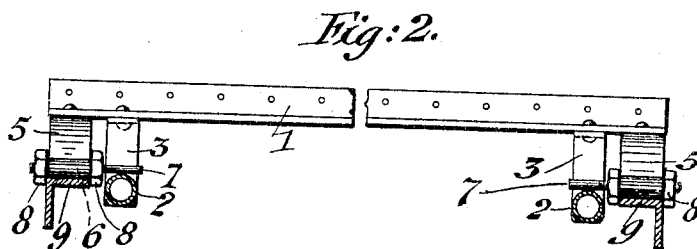
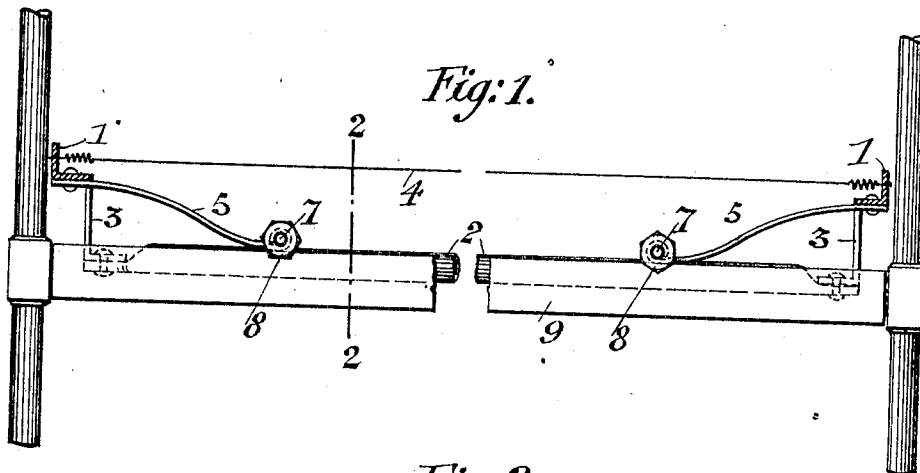


No. 856,752.

PATENTED JUNE 11, 1907.

C. J. WITZEL.  
MATTRESS.  
APPLICATION FILED DEC. 31, 1906.



Witnesses  
Rand Levine  
*[Signature]*

Inventor  
Charles J. Witzel  
By his Attorneys  
*[Signature]*

# UNITED STATES PATENT OFFICE.

CHARLES J. WITZEL, OF NEW YORK, N. Y.

## MATTRESS.

No. 856,752.

Specification of Letters Patent.

Patented June 11, 1907.

Application filed December 31, 1906. Serial No. 350,176.

*To all whom it may concern:*

Be it known that I, CHARLES J. WITZEL, a citizen of the United States, residing in New York, borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Mattresses, of which the following is a specification.

This invention relates to mattresses, and particularly to mattresses formed of a frame which supports a wire or other fabric.

The object of the invention is to provide such a mattress with means by which it is supported in a very resilient manner within the bedstead.

It is a further object of the invention to furnish a mattress provided with springs which are mounted on the mattress in an improved manner and which are supported in an improved manner upon the rails of the bedstead.

With these ends in view, the invention consists in a mattress which comprises the novel features of construction to be hereinafter described and finally recited in the claims.

In the accompanying drawings, in which the same reference characters denote the same parts throughout the several views, Figure 1 is a side-elevation of a mattress constructed in accordance with the invention, showing the manner in which the mattress is supported upon the bedstead rails, Fig. 2 is a section on line 2, 2, Fig. 1, Fig. 3 is a detail perspective view of a part of the mattress, and Fig. 4 is a transverse section showing a modified arrangement of the mattress-supporting springs.

In the drawings 1 denotes the end-bars of the mattress, which are preferably formed of angle-iron, as shown, and 2 denotes the side-bars which are located in a plane below the end-bars and connected with the latter by means of depending brackets 3. Said brackets form a rigid connection between the end-bars and side-bars, and in practice they are preferably riveted to said parts, as shown. The side-bars 2 are illustrated as being of tubular form. The wire or other fabric 4 of the mattress is stretched between the end-bars 1 and connected with the upright flanges of the latter, as shown.

The end-bars 1 extend at both ends laterally beyond the side-bars, and applied to said end-bars at the points where they so extend are flat springs 5 rigidly applied to the under

surfaces of the end-bars, preferably by means of rivets. Each spring 5 is slightly curved in downward direction, as shown, and extends toward the transverse center-line of the mattress, its lower end being disposed alongside of the adjacent side-bar, but slightly above the same. The lower or free end of each spring is bent to form an opening or bore 6 in which is secured a rod 7 extending transversely of the spring and over the adjacent side-bar, and thereby holding the spring to tension. Said rod is retained within the bore 6 by means of nuts 8 engaging said rod at either end of said bore.

The springs 5, if free at their lower ends and not subjected to tension, would extend downwardly below the side-bars. However, by providing the tensioning-rods 7, said springs are raised slightly above the side-bars and held in this position, whereby they are tensioned to the required degree. Accordingly these rods serve to regulate the resiliency of the mattress and prevent it from being too lightly supported and moving downwardly through too great a distance.

In practice, the mattress is placed upon the bedstead in such a manner that the springs 5 rest at their lower free ends upon the side-rails 9 of the bedstead. The springs are preferably made of a width corresponding to the width of said side-rails, so that the nuts 8 on the rods 7 will extend downwardly into contact with the side-faces of the side-rails so that the springs are prevented from having any lateral play on the side-rails. By this arrangement the shifting of the mattress in lateral direction is completely obviated.

It is obvious that when the mattress is in use the springs 5 will be brought into play, the mattress being very resiliently supported by these springs. It is an important feature of the invention that the springs are of simple form and yet combine resiliency with great strength.

In the modified arrangement, shown in Fig. 4, the springs 10, instead of being located at the outer sides of the side-bars, are arranged within the same. Said springs, however, are applied to the end-bars, in exactly the same manner. In this case, instead of directly contacting at their free ends with the side-rails, the springs at opposite sides of the mattress are connected at their lower ends by a rod 11 extending across the mattress and beyond the side-bars. The end-portions of

these rods 11 rest upon the upper surfaces of the side-rails of the bedstead and thereby support the mattress.

Having thus described my invention, I  
5 claim as new and desire to secure by Letters Patent:

1. A mattress comprising side and end bars, springs connected to the end-bars and extending downwardly and toward the trans-  
10 verse center-line of the mattress, and tensioning-rods carried by said springs at their lower ends and extending over said side-bars.

2. A mattress comprising side-bars, end-bars which extend at either end beyond said  
15 side-bars, said end-bars lying in a plane above said side-bars, flat springs applied to said end-bars and curved downwardly alongside of said side-bars and toward the transverse center-line of the mattress, and tension-

ing rods carried by the free ends of said  
20 springs and extending across said side-bars.

3. A mattress comprising side-bars, end-bars rigidly attached to said side-bars and arranged in a plane above the same, said end-bars extending at their ends beyond the side-  
25 bars, springs applied to said end-bars and extending downwardly alongside of said side-bars and formed at their free ends with bores, tensioning rods extending through said bores of the springs and over the side-bars, and  
30 nuts for retaining said rods in said bores.

In testimony, that I claim the foregoing as my invention, have signed my name in presence of two subscribing witnesses.

CHARLES J. WITZEL.

Witnesses:

PAUL GOEPFEL,

HENRY J. SUHRBIER.