J. P. LEGGETT.

SPRING BED BOTTOM AND MANUFACTURE OF THE SAME.

APPLICATION FILED AUG. 27, 1917.

1,313,902. Patented Aug. 26, 1919.

Fig 1

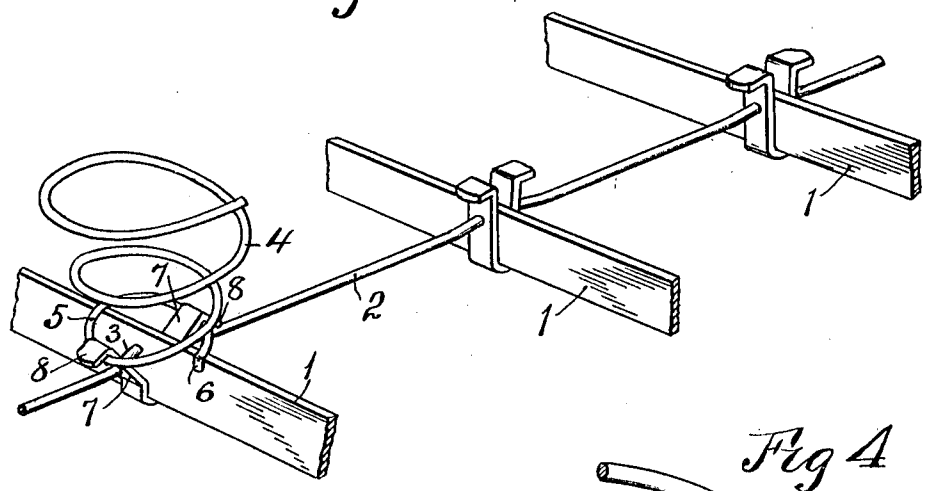


Fig 2

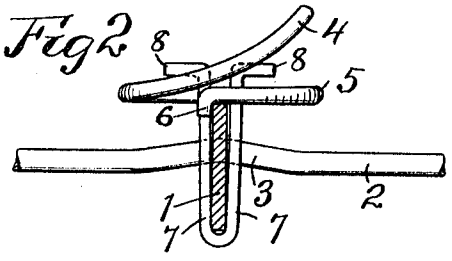


Fig 4

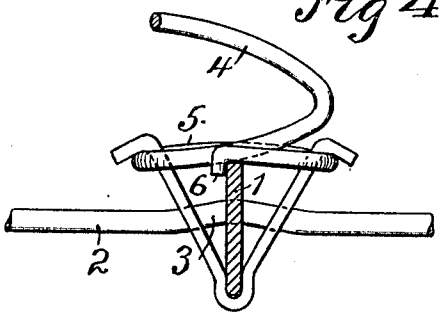


Fig 3

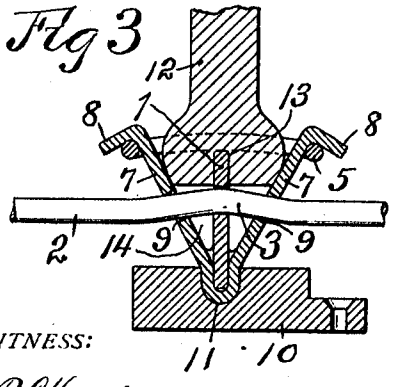
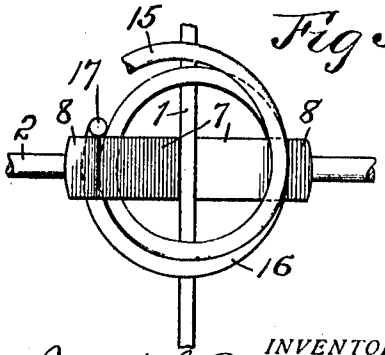


Fig 5



WITNESS:

R. E. Hamilton

INVENTOR.

Joseph P. Leggett

BY

Warren D. Stouse

His ATTORNEY

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH P. LEGGETT, OF CARTHAGE, MISSOURI.

SPRING BED-BOTTOM AND MANUFACTURE OF THE SAME.

1,313,902. Specification of Letters Patent. Patented Aug. 26, 1919.

Application filed August 27, 1917. Serial No. 188,325.

To all whom it may concern:

Be it known that I, JOSEPH P. LEGGETT, a citizen of the United States, residing at Carthage, in the county of Jasper and State of Missouri, have invented a certain new and useful Improvement in Spring Bed-Bottoms and Manufacture of the Same, of which the following is a specification.

My invention relates to improvements in spring bed bottoms and manufacture of the same.

The object of my invention is to provide a spring bed bottom having great strength, durability and resiliency, which is cheap to manufacture, which is light and not liable to get out of order or become loose-jointed and rickety.

A further object of my invention is to provide a novel, cheap and efficient method of making my improved spring bed bottom.

The novel features of my invention are hereinafter fully described and claimed.

In the accompanying drawing, which illustrates my improved bed bottom and the method of making the same,

Figure 1 is a perspective view of a portion of a spring bed bottom embodying my improvement.

Fig. 2 is a vertical sectional view showing a portion of one of the transverse tie members, a portion of one of the coil springs and the securing means therefor mounted on a longitudinal supporting member in the positions occupied by such parts prior to the setting down operation.

Fig. 3 is a view similar to Fig. 2, showing the securing means set down and the tools for effecting the setting down operation.

Fig. 4 is a view similar to Fig. 2 showing the parts in the positions occupied by them after the setting down operation, the securing device, spring and transverse tie member being shown in elevation.

Fig. 5 is a plan view of the longitudinal and transverse members and the securing device shown in Fig. 2 and a portion of a modified form of coil spring.

Similar reference characters designate similar parts in the different views.

My improved bed bottom is provided with a plurality of longitudinal supporting members, preferably comprising each a flat roll steel bar 1 which preferably possesses considerable resiliency and is disposed edge up. Engaging and preferably extending through holes provided therefor in the members 1 are a plurality of transverse tie members, each consisting preferably of a resilient wire 2, preferably provided at its intersection of the member 1 with an upstanding arch 3.

At each intersection of the members 1 and 2 is a spring 4, preferably an inverted cone spring having a substantially horizontal coil 5 which rests upon the upper edge of the member 1 and which is provided with a downwardly turned end 6 which engages one side of the bar 1 for holding the spring from turning axially.

At the intersections of the members 1 and 2, there are provided separate securing means for fastening the springs to the members 1 and 2.

All of the securing means are alike, as are the coil springs, so that a description of the means for securing one of the springs to the members 1 and 2 will suffice for all.

Each securing means comprises, preferably, a V-shaped member having two arms 7, each provided at its upper end with a lateral projection 8. Prior to the setting down operation, the arms 7 are substantially parallel with each other and embrace opposite sides of the member 1, as shown in Fig. 2.

Each arm 7 is provided with a transverse hole 9, through which extends the arch 3 of the adjacent transverse member 2.

The parts having been assembled as shown in Fig. 2, with the lower coil 5 of the spring resting upon the upper edge of the member 1, the parts thus assembled are mounted on an anvil 10, Fig. 3, with the lower ends of the arms 7 mounted in a groove 11 in the upper side of the anvil 10.

A setting down tool 12 provided with a V-shaped lower end having a vertical groove 13 for receiving the member 1, and provided with a transverse groove 14 for receiving the transverse member 2, has its V or wedge-shaped lower end inserted between the arms 7, after which the setting down tool 12 is forced downwardly to the position shown in Fig. 3, in which position it will have forced the arms 7 and coil 5 to the positions shown in Fig. 3, in which the arms 7 will respectively engage the upper sides of the coil 5 and will hold said coil depressed and under tension at opposite sides of the member 1.

When the arms 7 are set down as above described, they will swing freely, at first,

over the arch 3, the holes 9 being sufficiently large for this to be effected, until the arms engage the coil 5, at which time they will also engage the transverse member 2 at opposite sides of the member 1 and will slightly depress and tightly embrace and hold under tension the member 2.

In the setting down operation, the arms 7 will be forced by the anvil 10 to tightly embrace opposite sides respectively of the member 1, thus holding said member from tipping laterally.

After the setting down operation, the members 1 and 2, coil 5 and the securing member will be held rigidly together by reason of the permanent tension which has been imparted to the coil 5 and the transverse tie member 2.

In the form of my invention shown in Fig. 5, the structure is the same as that shown in Fig. 4, with the exception that the spring 15, which is similar to the spring 4 has its bottom coil 16 extended to more than a single convolution and has two parallel portions engaging one of the arms 7 at the under side thereof, the lower end of the spring having an upturned portion 17 which engages one edge of the adjacent arm 7.

When the spring is made as shown in Fig. 5, the lower coil thereof is disposed at right angles to the axis of the spring, as the setting down operation does not tilt the spring. In the form shown in Fig. 4, an initial inclination to the horizontal is given the lower coil of the spring, so that in the setting down operation, the spring will be brought to an erect position.

The engagement with the V-shaped member having the two arms 7 with the longitudinal member 1 and the transverse tie member 2 in addition to serving to secure the spring, also serves to hold the bed bottom in its right-angled form, eliminating the necessity of using diagonal braces for this purpose.

I do not limit my invention to the structure shown and described, nor to the precise steps set forth, as modifications, within the scope of the appended claims, may be made without departing from the spirit of my invention.

What I claim is:—

1. In a spring bed bottom, a longitudinal supporting member having a transverse hole, a V-shaped securing member embracing the sides and lower edge of the longitudinal member, each arm of the securing member having a transverse hole, a spring having a coil supported by the upper edge of the longitudinal member, and a transverse tie member extending through the holes in said arms and said longitudinal member and holding the V-shaped securing member properly positioned on the longitudinal member, the arms of the V-shaped member being depressed so as to hold the transverse tie member under tension and holding the coil under tension at opposite sides respectively of the longitudinal member.

2. In a spring bed bottom, a longitudinal supporting member, a V-shaped member embracing the sides and lower edge of the longitudinal member, each arm of the V-shaped member having a transverse hole, a coil spring having a coil supported by said longitudinal member and held under tension at opposite sides thereof by said arms, and a transverse tie member supported by the longitudinal member and extending through said holes in said arms, the latter being depressed so as to hold the tie member under tension.

In testimony whereof I have signed my name to this specification.

JOSEPH P. LEGGETT.

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