W. C. Wyckoff,

Bed Spring,

No. 51,644. Patented Dec. 19, 1865.

Fig. 1.

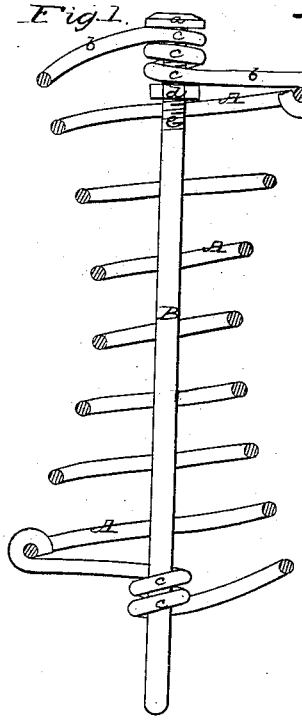


Fig. 2.

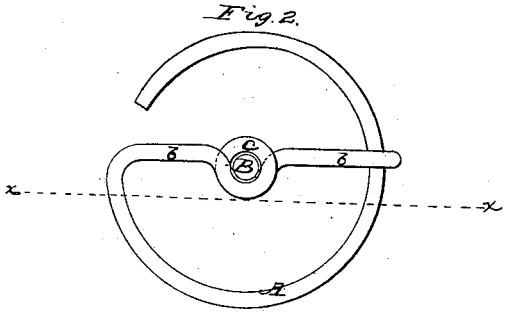
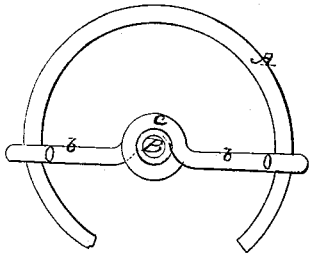


Fig. 3.



Witnesses.

A. P. Wyckoff

Wm. C. Easterline

Inventor:

Wm. C. Wyckoff

UNITED STATES PATENT OFFICE.

WILLIAM C. WYCKOFF, OF BROOKLYN, NEW YORK.

FURNITURE-SPRING.

Specification forming part of Letters Patent No. **51,644**, dated December 19, 1865.

To all whom it may concern:

Be it known that I, WILLIAM C. WYCKOFF, of the city of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Furniture-Springs; and I hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings.

The nature of my invention consists in constructing that class of bed-springs which are provided with a central guiding-rod, in such manner that the bearings or guides for the rod shall be entirely within the spring—that is to say, a part of the spring—whereby I provide a spring which may be used for upholstery purposes with great advantage.

In the accompanying drawings, Figure 1 is a longitudinal vertical section of that class of springs to which I have adapted my invention, showing its application thereto, taken in the plane of the line *x x*, Fig. 2. Fig. 2 is a top view of the same. Fig. 3 is a view showing a different manner of applying my invention.

Similar letters indicate the same parts in the three figures.

A designates an ordinary double conical spring, usually termed an "hour-glass spring"—that is, one whose coils decrease in size from the ends to the center. B is the guiding-rod running through the center of the spring, and provided with a head, *a*, which may be large or small, as desired. To these parts I lay no claim, either separately or in combination.

To construct this spring A, as well as other springs of different forms, in such manner that the guiding-rod B shall have its bearings and supports entirely within the spring, so that it need not depend upon a slat or the like underneath or above the spring to guide it, is the object and purpose of my invention; and I effect this in the following manner, which I deem the simplest, and which I think adds the least, if any, additional expense to the spring: The ends of the wire of which the spring is composed, after the spring has been fully made, before being cut off, are carried diametrically across the spring and secured to the side opposite where the bend commences. These cross-pieces are designated by the letter *b* in the drawings; but before securing them to the opposite side, one or more coils, C C, are made in them at about the center of the spring. These coils constitute the bearings for the guiding-rod B, as can be clearly understood by reference to Fig. 1.

A modification of the above is illustrated in Fig. 3. Here the cross-rod *b* is made separately from the spring and subsequently attached to it. The coils C C are shown in this modification; but I propose in lieu of these, if found advantageous, to make a slot or hole through the wire (it being made large enough at this point for the purpose) as a guide for the rod B.

It will be understood that I do not limit myself to the material used, as wood or some other material might be employed for the cross-rods *b*.

It will be understood that other cross-rods *b* may be used intermediately along the spring if found desirable, or, indeed, the exact position longitudinally in the spring of the rods *b* may be varied.

Various ways may be adopted for securing the guide-rod B to the cross-rods *b*. The drawings illustrate the rod B as thrust through the coils C C, its head resting upon the same, and a nut, *d*, which is inserted upon the lower end of the rod, (before the insertion of the rod through the lower coils,) and which works upon a thread, *e*, cut upon the rod and screwed up tightly against the coils C of the upper cross-rod. This secures the guiding-rod B to the spring; but it is evident that a shoulder might be made upon the rod, and the head *a*, whether metal or wood, be made to screw upon the top of the rod, or the cross-rods might be passed through slots in the guiding-rod.

The advantages of so constructing a spring that the bearings for the guiding-rod shall be within the spring, or a part thereof, are many. To make myself better understood, I will refer to the spring shown in the patent of C. F. and J. W. Tillman, December 15, 1863. Therein the spring is constructed very much as the one I here illustrate, except as to the part which is my invention. In that spring a top piece, of wood or other material, is placed on the top coil of the spring, and secured there by staples or the like. The rod is fastened into this top-piece, and not directly to the spring, and the lower end of the guide-rod has no bearings ex-

cept such as are furnished by the slat of the bedstead.

But my improvement makes a perfect thing of the spring, and it can be used for all upholstery purposes. If it be applied to sofas, chairs, or bedsteads with sacking bottoms, the bottom coil of the spring rests upon the sacking in the usual manner, and the guide-rod B is permitted to play through a hole in the sacking when the seat is depressed.

I wish it understood that I lay no claim to a spring constructed as shown in the patent above referred to—that is, I distinctly disclaim a bed-spring provided with a guiding-rod for preventing the spring from bulging out of position or tilting over.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The cross-rods *b*, in combination with a spring, A, provided with a guiding-rod, B, substantially as specified.

2. Making the coils C C, or an equivalent thereof, in the cross-rods *b*, as a bearing for the guiding-rod B, substantially as specified.

WM. C. WYCKOFF.

Witnesses:

C. P. WYCKOFF,

WM. A. CASTERTINE.