

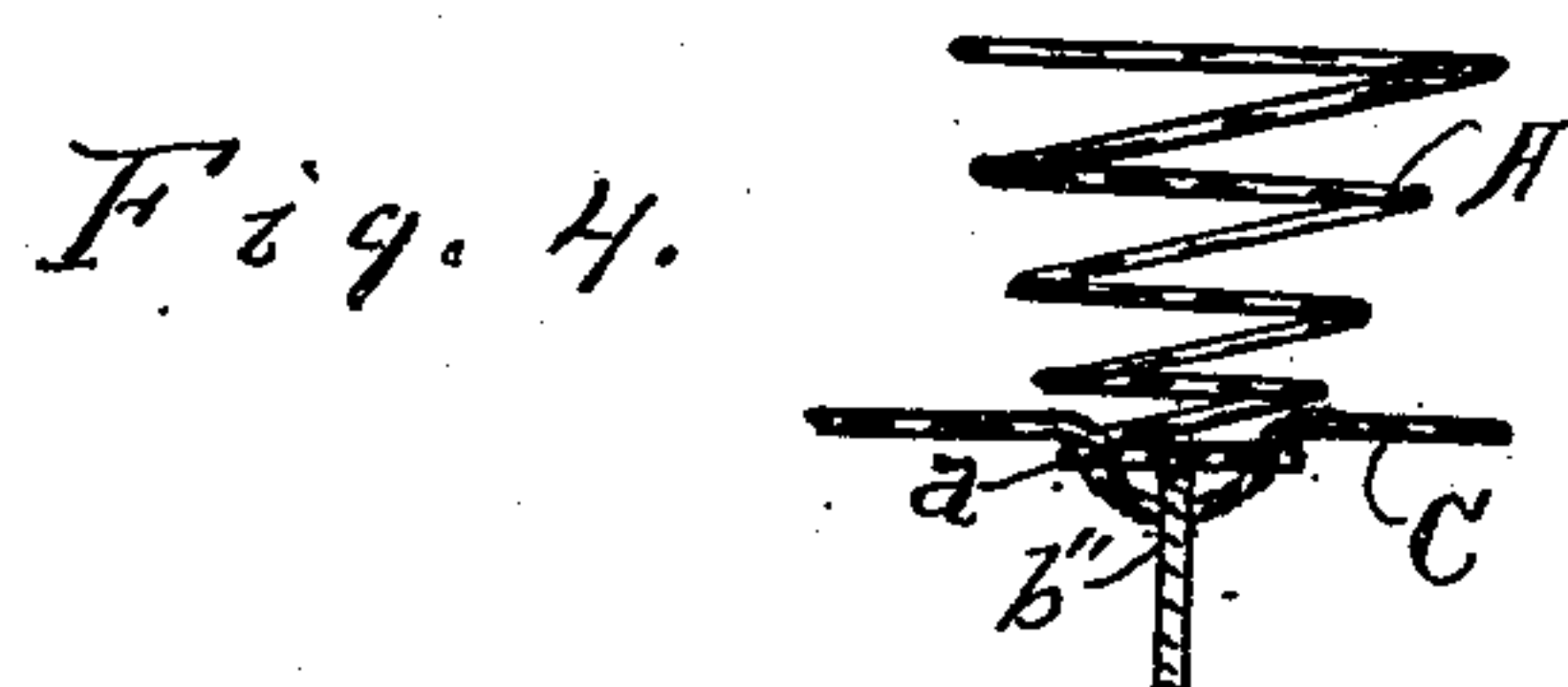
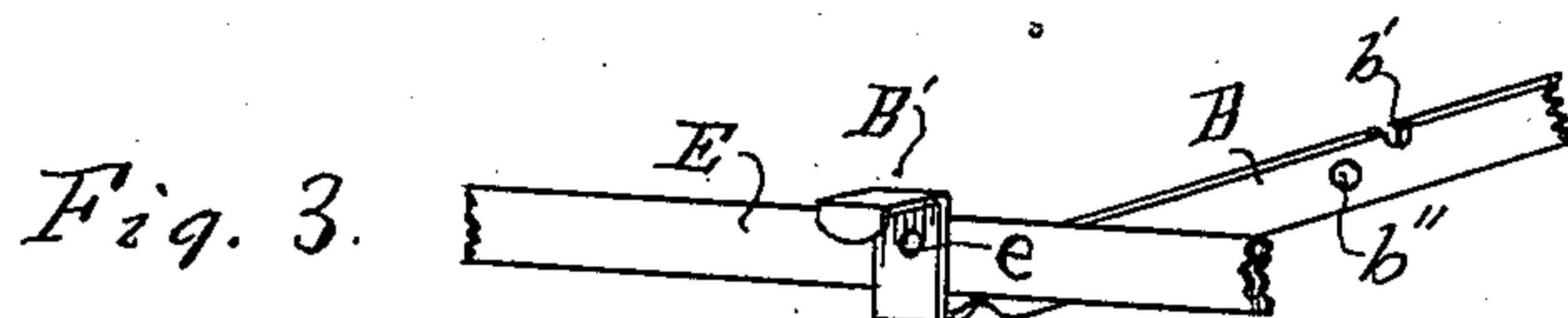
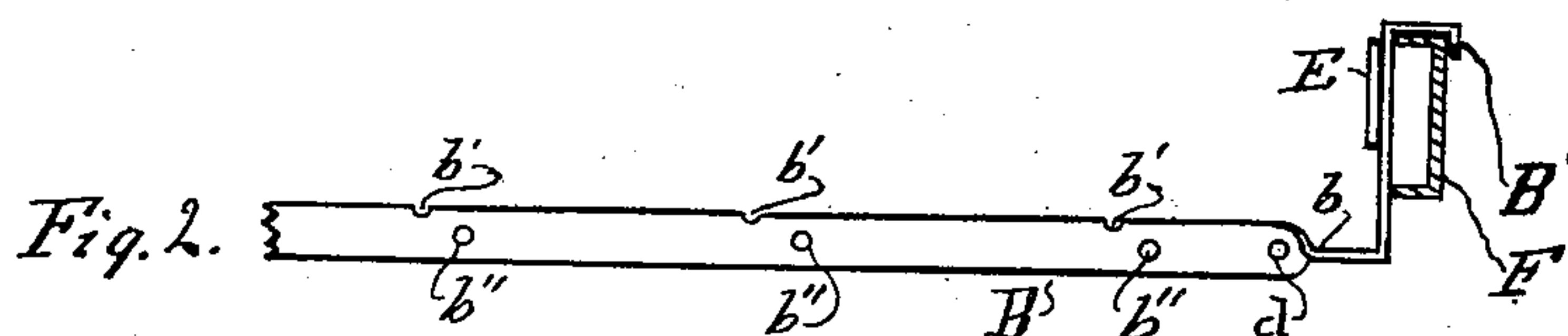
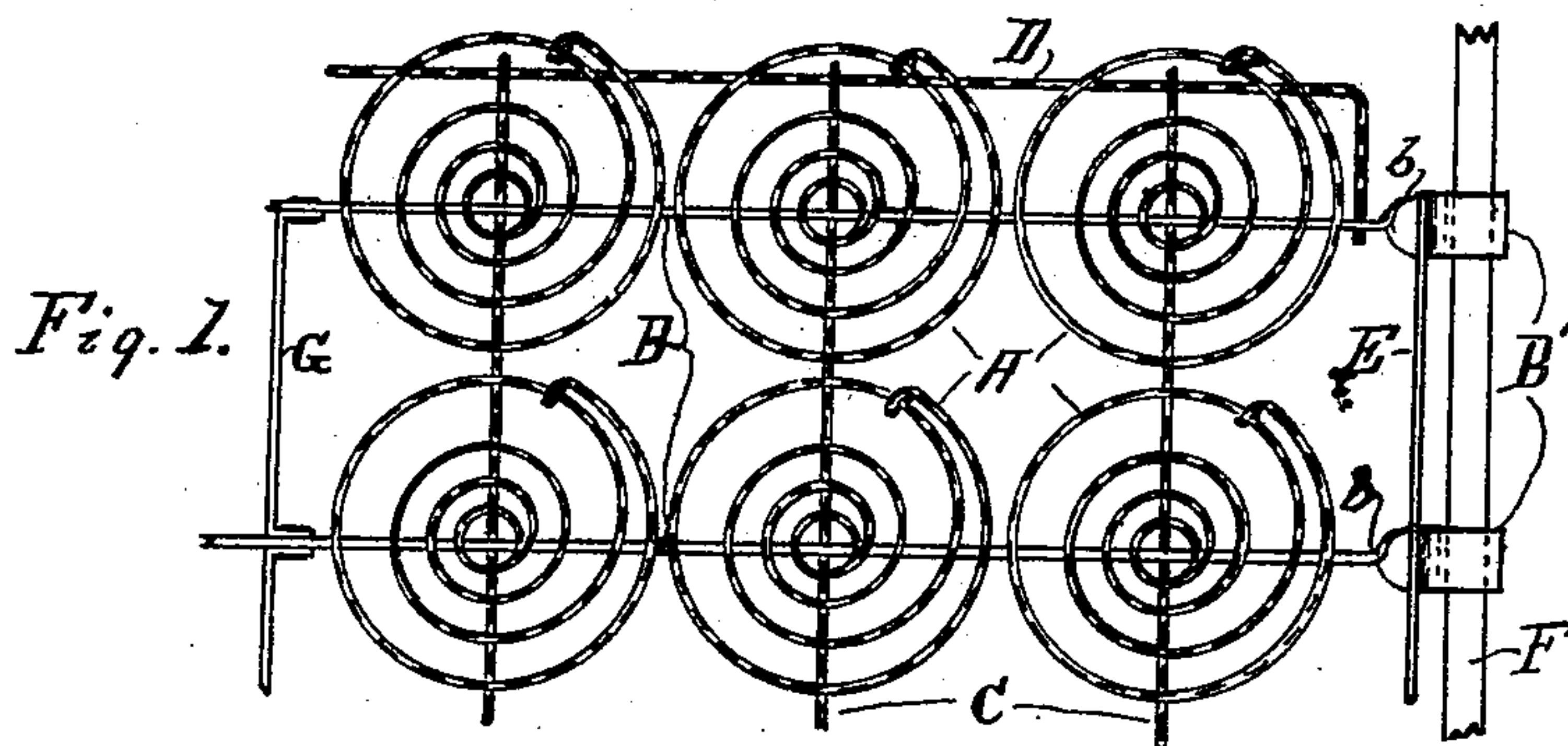
No. 665,831.

Patented Jan. 8, 1901.

F. KARR.
SPRING BED BOTTOM.

(Application filed Oct 17, 1899.)

(No Model.)



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANCIS KARR, OF HOLLAND, MICHIGAN.

SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 665,831, dated January 8, 1901.

Application filed October 17, 1899. Serial No. 733,897. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS KARR, a citizen of the United States, residing at Holland, in the county of Ottawa and State of Michigan, have invented certain new and useful Improvements in Spring Bed-Bottoms, of which the following is a specification.

My invention relates to improvements in spring bed-bottoms for use upon iron and brass bedsteads; and its objects are, first, to provide a safe reliable means of securing the spring-bottom to the bed-rail, and, second, to so construct said support that it will increase the supporting qualities of the bed-rail, and thus avert the danger of springing or bending the same. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan of a section of a spiral spring bed-bottom, showing the manner of applying the supports both to the springs and to the side rails of the bedstead. In this view I have not shown the upper-surface construction for the reason that said upper-surface construction does not enter into my invention, and any ordinary form of construction may be used therefor. Fig. 2 is a side elevation of the support, showing how it is attached to the side rail of the bed. Fig. 3 is a perspective of the spring-support and the connecting-bar that holds them in position and acts with the side rail of the bed in supporting the bed-bottom and the burden it may be required to sustain; and Fig. 4 is an end view of the spring-support in section, showing the manner of securing the spring thereto.

Similar letters refer to similar parts throughout the several views.

In the accompanying drawings, A represents the ordinary spiral springs. C represents the crimped tie-rods. D represents the border-wire. F is the bed-rail.

The supporting-joists B are constructed of heavy band iron or steel and in such form that the springs will rest upon the edge, so as to give the greatest possible strength to the joist. This I accomplish by twisting the joists, as at *b*, so that the end may be made to rest on the bed-rail flatwise, as shown in Figs. 1 and 2, and to avert the danger of their slipping off of the bed-rail and at the same time of tying the bed-rails together and avert

the danger of their being spread apart by the weight that may be placed on the bed I form hooks *B'* to pass over and clamp on the outer surface of the rail. I place several of these supporting-joists in the length of a bed-bottom and connect them by means of a side rail E at each side of the bed, which is riveted to the vertical portion of the ends of the joists, as at *e*, so that any weight brought to bear upon the bed will be exercised upon these side rails edgewise. By this means, it will be readily seen, I am able to utilize the entire strength of these side rails to assist the side rails of the bedstead in supporting the weight that may be placed on the bed and by this means greatly lessen the danger of springing or bending the bed-rails.

To secure the springs A to the supporting-joists, I prefer that shallow notches, as shown at *b'*, be made in the upper edge of the joists for the reception of the lower coil *a* of the springs and an aperture *b''* be made through the joists below each spring. I pass the crimp or tie rods C over one side of the coil *a*, through the apertures, and over the coil on the opposite side of the supporting-rail, so that the springs are securely held in place thereby, and the ends of the tie-rods may be secured to the border-wire D in the usual manner, as indicated in Fig. 1. With this construction it is only necessary to place the border-wires across each end of the bed-bottom, and for this purpose I pass the ends of the wires through the holes *d* in the supporting-rails.

With this construction of bed-bottom there is no necessity for placing the border-wire upon the bottom at all, as the tie-rods C can be secured to the outer joist exactly as effectively and with the added advantage of doing away with the expense of the surplus wire and of attaching the same and also of doing away with the added weight incident upon its use.

I strengthen and support the joists in their vertical edgewise position by means of the cross-braces G, which are securely riveted or bolted to the joists at proper intervals, as indicated in Fig. 1.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In combination with the spiral springs and tie-rods of a spiral-spring bed-bottom, lateral supporting-joists placed edgewise under the springs, said joists provided with apertures for the tie-rods, and the ends arranged to form flat bearings on the side rails of the bedstead, substantially as and for the purpose set forth.

2. In combination with the spiral springs and tie-rods of a spiral-spring bed-bottom, and side rails for supporting the same, of lateral supporting-joists arranged to receive and

support the springs on the edges of the joists, said joists provided with apertures to receive the tie-rods, and the ends of said joists twisted one-fourth around bent upward and a hook formed thereon to engage the rails, substantially as and for the purpose set forth.

Signed at Grand Rapids, Michigan, October 12, 1899.

FRANCIS KARR.

In presence of—

ESTELLA CILLEY,
ITHIEL J. CILLEY.