

No. 771,309.

E. H. HUTCHESON.

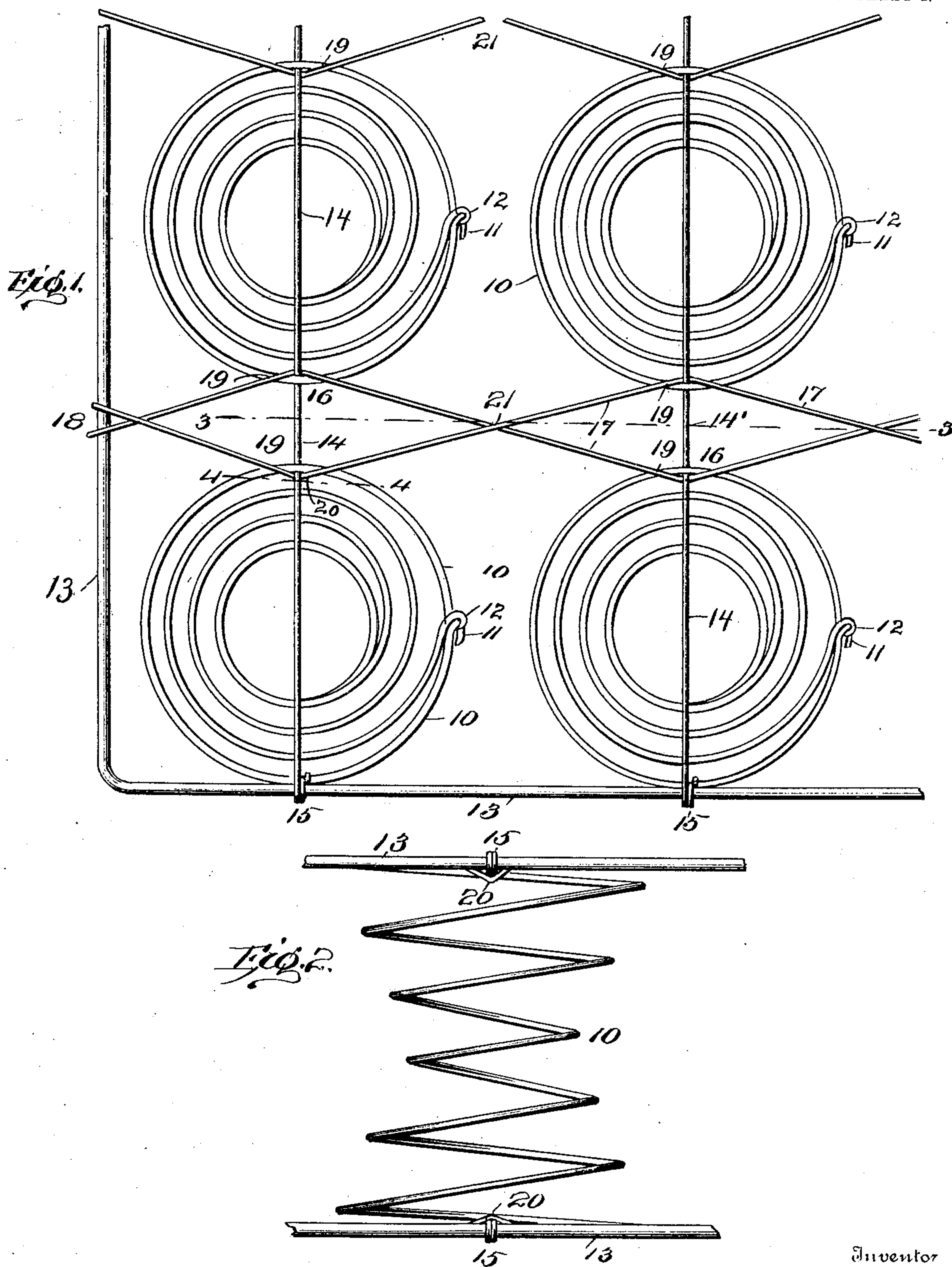
PATENTED OCT. 4, 1904.

BED BOTTOM.

APPLICATION FILED MAR. 24, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

J. M. Fowler Jr.
Henderson, F. Hill

Inventor

Earl H. Hutcherson

By

Grant Burroughs

Attorney

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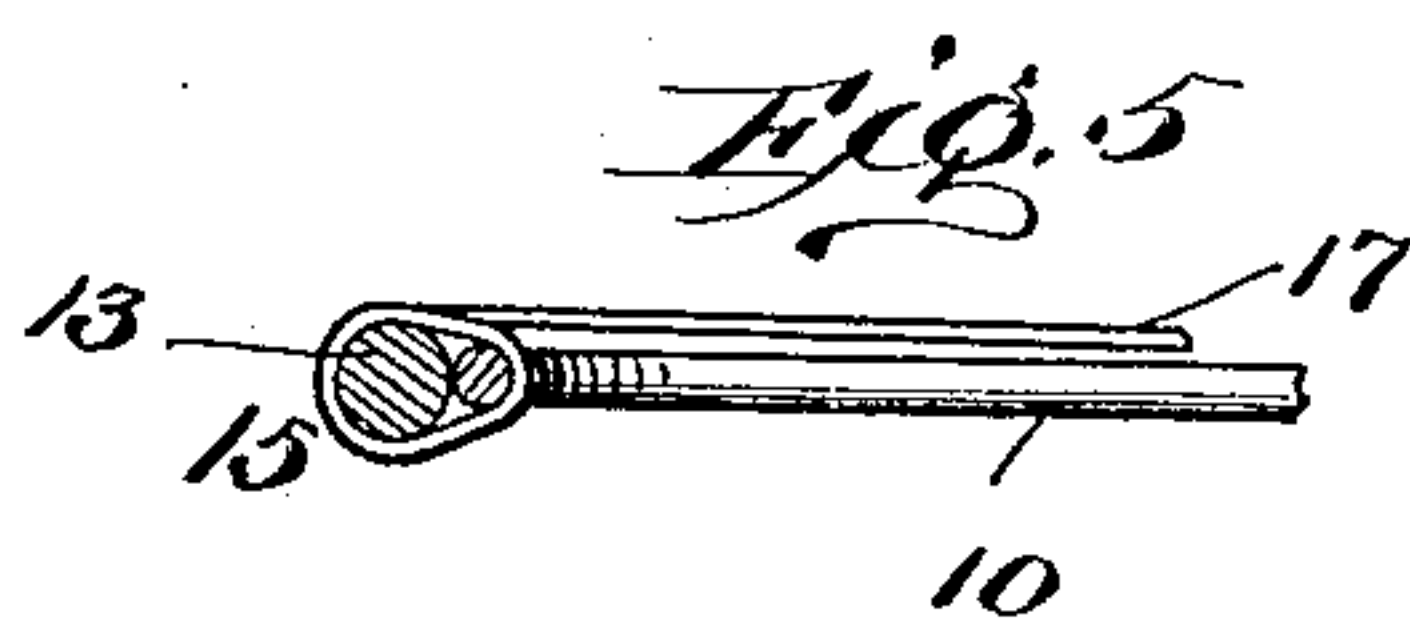
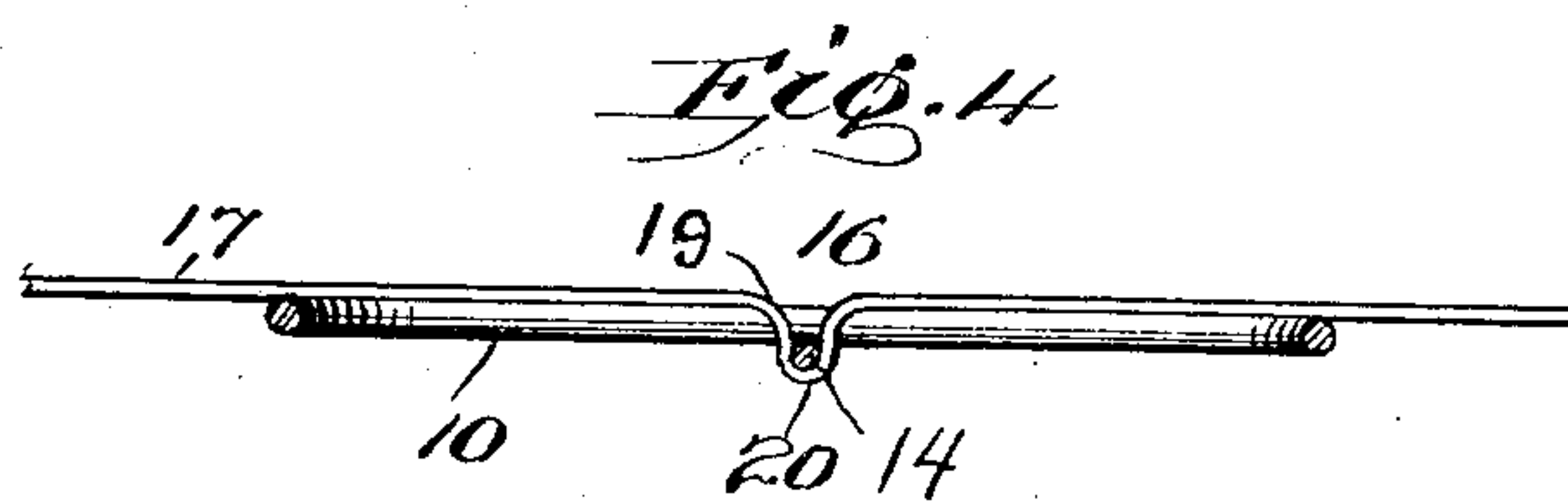
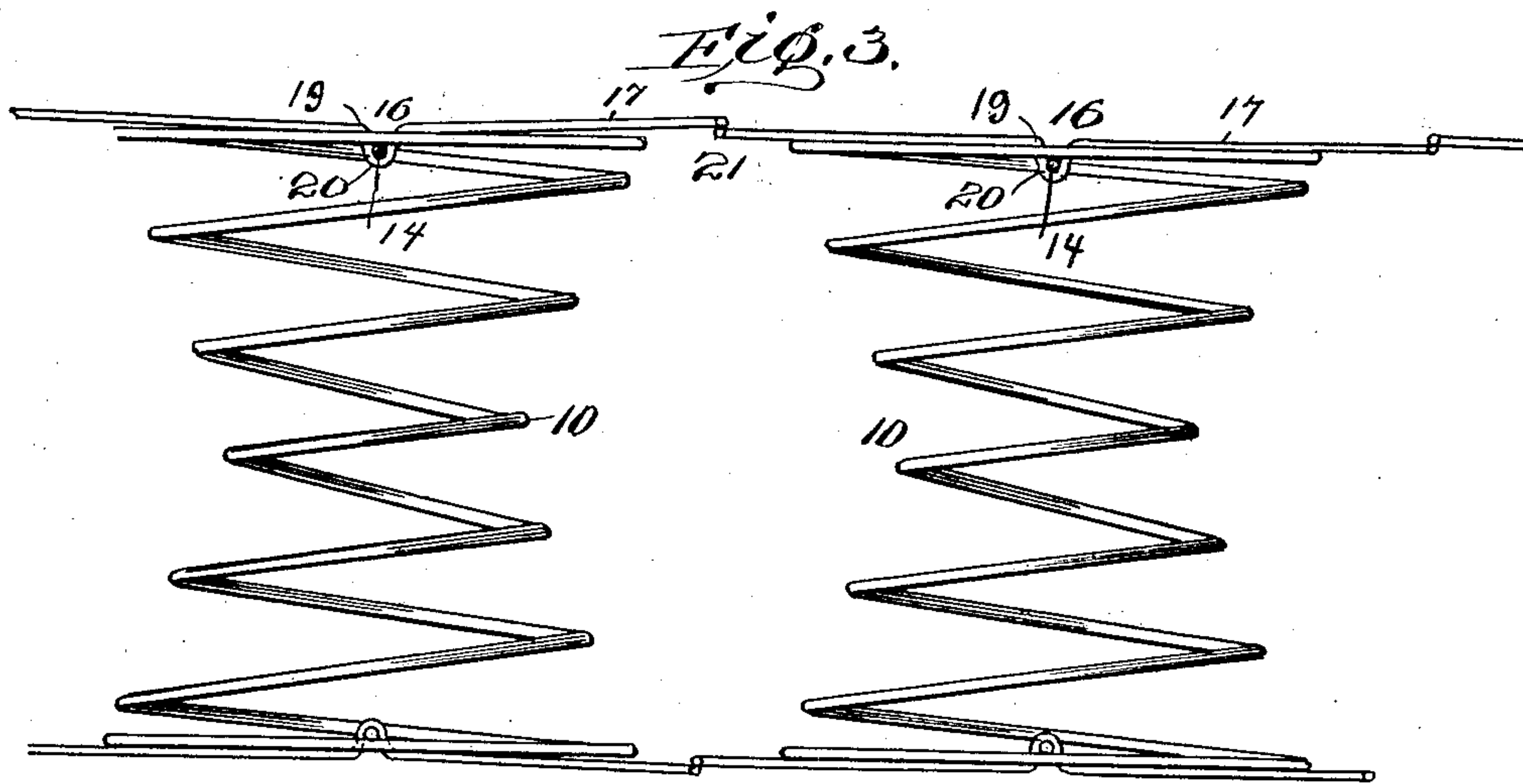
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UNITED STATES PATENT OFFICE.

EARL H. HUTCHESON, OF ATLANTA, GEORGIA, ASSIGNOR TO ATLANTA
SPRING BED COMPANY, OF ATLANTA, GEORGIA.

BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 771,309, dated October 4, 1904.

Application filed March 24, 1904. Serial No. 199,739. (No model.)

To all whom it may concern:

Be it known that I, EARL H. HUTCHESON, a citizen of the United States, and a resident of Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Bed-Bottoms, of which the following is a full, clear, and exact description, such as will enable those skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to improvements in bed-bottoms of that class which are formed entirely of metal and in which coiled springs are secured to each other and to the supporting-frames by cross-braces and lacing-wires.

It has for its object the production of a device in which the coiled springs will be securely held in place without detracting from their efficiency and which will be of simple and durable construction.

The invention consists in the novel construction, combination, and arrangement of parts, such as will be hereinafter fully described, pointed out in the appended claims, and illustrated in the accompanying drawings.

In the drawings, in which similar reference characters designate corresponding parts, Figure 1 is a plan view of a part of a bed-bottom embodying the invention. As the top and under sides are alike, the plan view will do for both. Fig. 2 is a side elevation of one of the coiled springs and the parts to which it is attached. Fig. 3 is a cross-sectional view on the line 3 3 of Fig. 1. Fig. 4 is an enlarged detail sectional view on the line 4 4 of Fig. 1. Fig. 5 is an enlarged detail view showing the fastening of an end coil of one of the coiled springs to one of the frames.

The coiled springs 10 may be of any construction suitable in the premises, but preferably are of the double-cone or hour-glass formation. The ends of the wire forming a spring are shaped to form hooks, as at 11, which engage with the loops 12 in the end coils of the spring. These coiled springs are ar-

anged in longitudinal and transverse rows and are secured between two opposite parallel inclosing frames 13, formed of metal rods. These frames are substantially rectangular in form and have the same dimensions. Cross-braces 14 extend from one side of the frames to the other side and pass diametrically across the transverse rows of springs. They are straight throughout their lengths, except that their ends are looped around the sides of the frames and the adjacent parts of the end coils of the outside springs, as at 15. The braces pass inside of the end coils of both the outer and intermediate springs, as at 16. Lacing-wires 17, arranged in pairs, lead from one end of a frame 13 to the other end of the same and are secured at their ends by being bent around the end pieces of the frame, as at 18. They pass between the longitudinal rows of springs and secure the latter to the cross-braces 14. Each wire passes over the end coil of a spring, as at 19, and is looped, as at 20, under the cross-brace extending beneath such end coil. It leads from the spring in one longitudinal row across the intervening space to the succeeding spring in the adjacent row and then back again to the following spring in the original row, thereby taking a zigzag course from one end of the frame to the other. The two wires cross each other at regular intervals, as at 21, and fill up the intervening space between two adjacent rows. The lacing-wires not only secure the springs to the cross-braces, but also, by reason of their passing back and forth from one row of springs to the other, hold the individual springs in their proper relative positions against displacement. As they draw against the end coils of the springs, owing to the loops 20 passing beneath the cross-braces, the lacing-wires themselves are also held against displacement. As there is no connection between the lacing-wires where they pass each other, as at 21, they are free to move relatively to each other, which will add to the resiliency of the device.

The cross-braces have been described as extending transversely of the frames and the

lacing-wires as extending longitudinally of the same. It is obvious, however, that they may extend in either direction.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a bed-bottom, opposite inclosing frames, coiled springs arranged in transverse and longitudinal rows between said frames, cross-braces secured at their ends to opposite sides of said frames and extending diametrically across the ends of the transverse rows of springs, and lacing-wires arranged in pairs passing between the longitudinal rows of springs, each wire passing over the end coil of a spring and looped under the cross-brace passing beneath such end coil and leading from the spring in one longitudinal row to the succeeding spring in the adjacent longitudinal row and then back again to the following spring in the original row, both lacing-wires taking zigzag courses from one end of the frame to the other and crossing each other at regular intervals.

2. In a bed-bottom, opposite inclosing

frames, coiled springs arranged in transverse and longitudinal rows between said frames, cross-braces bent at their ends around opposite sides of the frames and around the coils of the springs adjacent to the sides of the frames and said braces extending diametrically across the ends of the transverse rows of springs, and lacing-wires arranged in pairs passing between the longitudinal rows of springs, each wire passing over the end coil of a spring and looped under the cross-brace passing beneath such end coil and leading from the spring in one longitudinal row to the succeeding spring in the adjacent longitudinal row and then back again to the following spring in the original row, both lacing-wires taking zigzag courses from one end of the frame to the other and crossing each other at regular intervals.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

EARL H. HUTCHESON.

Witnesses:

JOHN L. COLEMAN,
N. T. SPRATT.