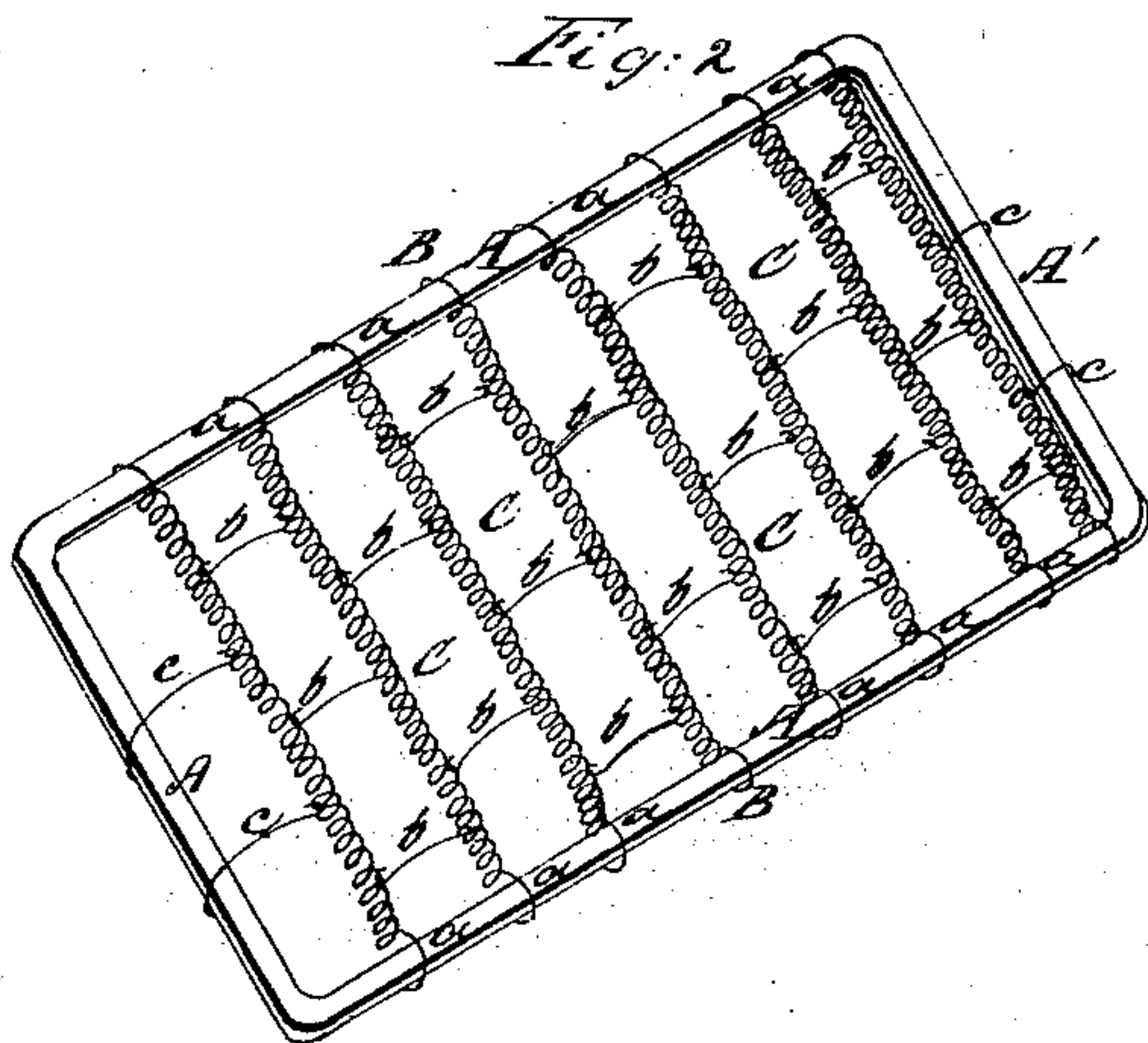
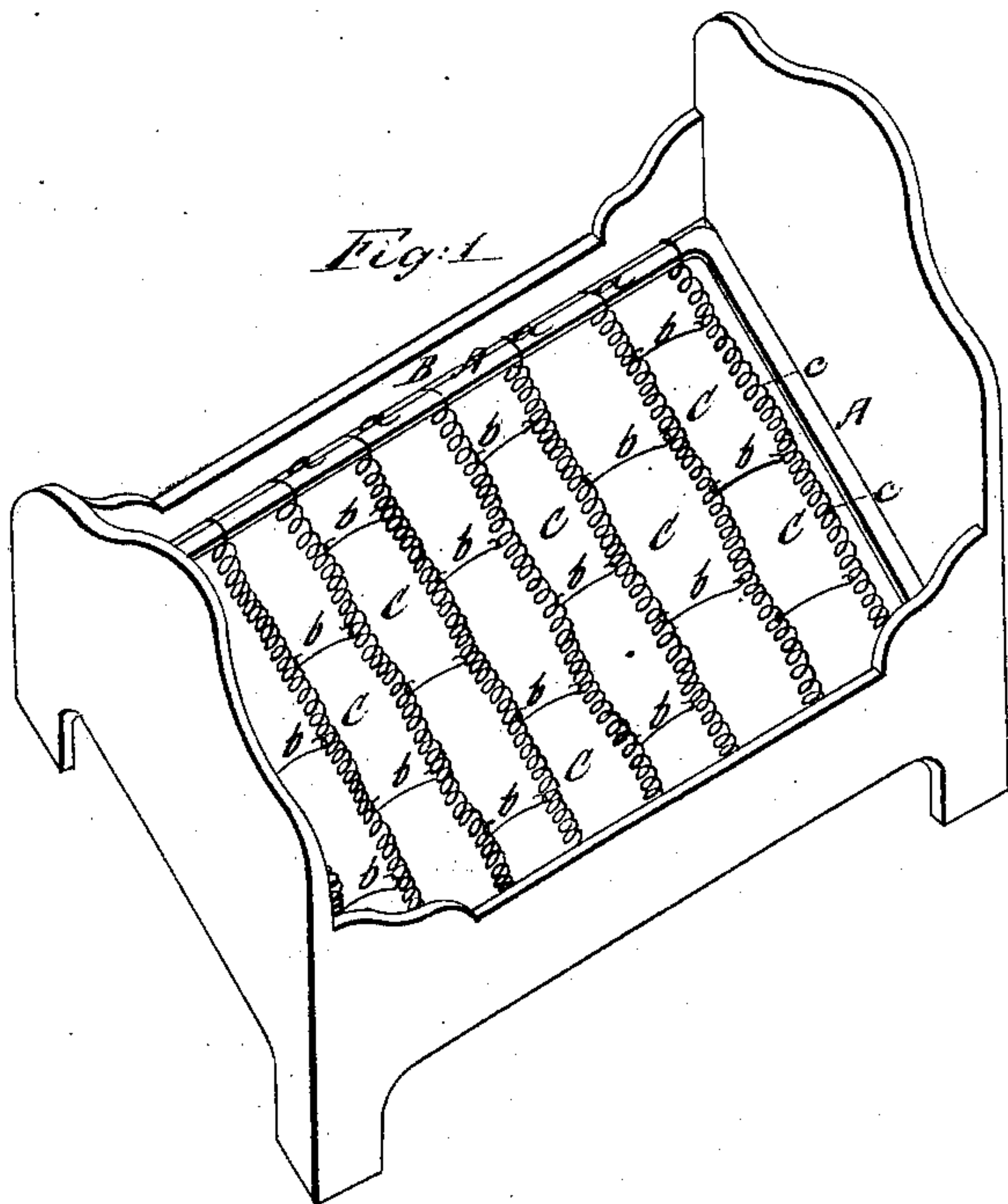


C.B. Bristol,

Bed Bottom,

No 55,574,

Patented June 12, 1866.



Witnesses:
E. H. Baldwin.
R. H. Fitzgerald.

Inventor
Chas. B. Bristol

UNITED STATES PATENT OFFICE.

CHARLES B. BRISTOL, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO HIMSELF AND PHILIPPE KOCH, OF SAME PLACE.

IMPROVED SPRING BED-BOTTOM.

Specification forming part of Letters Patent No. 55,574, dated June 12, 1866.

To all whom it may concern:

Be it known that I, CHARLES B. BRISTOL, of the city and county of New Haven, in the State of Connecticut, have invented a new and useful Improvement in Spring-Bottoms for Beds, &c.; and I do hereby declare that the following is a full, clear, and exact description of the construction, character, and operation of the same, reference being had to the accompanying drawings, which make part of this specification, in which—

Figure 1 is a perspective view of the spiral-spring bottom resting in a bedstead, ready to receive the mattress or other bedding, &c. Fig. 2 is a perspective view of the quadrilateral iron frame, with the spiral or helical springs attached transversely and the connecting rods or hooks in their places, so as to make the spiral-spring bottom complete.

My improvement consists in making a suitable frame (with or without joints) to the sides or longest bars of which I secure the ends of the helical or spiral springs, and to the ends or shorter bars I secure the requisite number of the connecting rods or hooks to hold or retain the helical springs in their proper positions to sustain the mattress, &c.

I make the frame of iron or any other suitable material, of a quadrilateral or quadrangular form, as represented at A and A', Fig. 1, and at A and A' and A' and A', Fig. 2, making the bars of a suitable shape and size to sustain the lateral strain to be occasioned by the weight of the person or persons in the bed, &c. For ordinary use I would recommend that the bars be about one and an eighth inch in width and about three-eighths of an inch in thickness when made of iron. And, when thought best, I make joints in the side bars, A and A, as shown at B, Fig. 1, and at B and B, Fig. 2, so that the frame can be folded to half its size, when desired, for transportation or stowage, or so that the head can be raised for the convenience or comfort of sick persons; and, if found necessary, a curved brace may be fitted across in the central part, as from one joint to the other, curved sufficiently below the springs to prevent the weight or pressure on the springs from drawing in the two side

bars, A and A, toward each other, which might happen if the bed should be overloaded or if the joints should work loose.

I make the spiral springs C C, &c., of steel wire properly tempered, or of any other suitable wire, by spinning or winding it on a cylindrical rod or arbor, in the usual way of making spiral or helical springs, leaving a sufficient portion at each end to hook over the side bars, as shown at *a a*, &c., Figs. 1 and 2.

When the coils or helicals are wound close, in the usual way, and properly tempered, I use pieces of from one-fourth to one-third of the length which will reach across the frame, and then stretch them out to the whole distance across, so that the wire will only occupy from one-third to one-fourth of the space, as indicated in the drawings, which causes considerable strain or tension on the springs; and I hook the ends of these springs over or around the side bars or rails, A A, as shown at *a a*, &c., Figs. 1 and 2. I then connect these spiral springs C C, &c., by wire rods or hooks, or their equivalents, as shown at *b b*, &c., hooked into the spiral springs, or otherwise attached, so that no two will draw directly against each other, but so as to leave the springs free to expand in all respects, as is plainly shown by the drawings, where each connecting rod or hook acts in the center between two on the opposite side of the spring, &c.

Any number of these spiral springs may be used, so as to make the bottom as strong as desired; and as they hook around or into the side bars, A and A, of the frame, the springs may be changed in their locality on the bars, or an additional spring may be put on, to increase the strength of the part where the greatest weight is to be borne, simply by varying the lengths of the connecting rods or hooks *b b*, &c.

I would recommend that the spiral springs be made of steel wire, about No. 14, and that the coils or helices be about one-half of an inch in diameter and properly tempered, and in the central part of the bottom placed about one-half of an inch apart.

These spiral-spring bottoms may be readily fitted to any bedstead, cradle, or crib, and may

be used for many other purposes; and it is believed to be far better than any spring-bottom where the spiral springs stand on their ends.

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

The combination of the spiral or helical springs C C, &c., when placed horizontally, with the connecting rods or hooks b b, &c.,

or their equivalents, and the frame A A and A' A', when the whole is constructed, arranged, and fitted for use substantially as herein described and set forth.

CHAS. B. BRISTOL.

Witnesses:

E. W. BALDWIN,

R. FITZGERALD.