

(No Model.)

C. L. AMES.
BED BOTTOM.

No. 336,616.

Fig. 1. Patented Feb. 23, 1886.

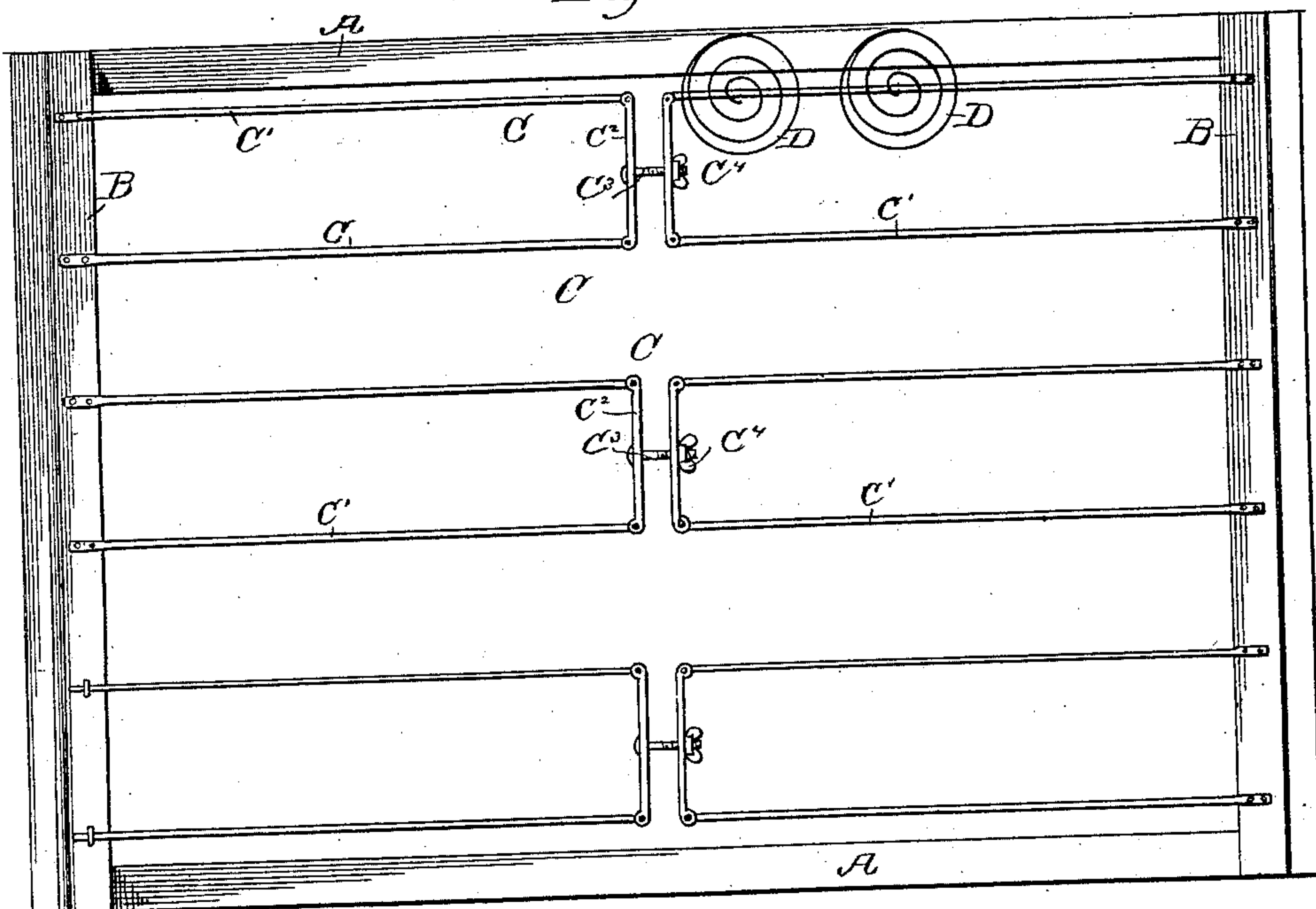
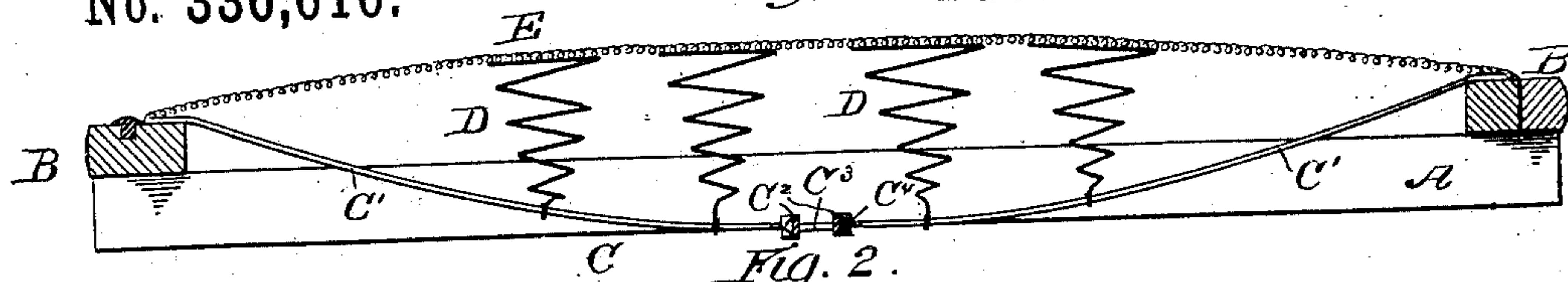
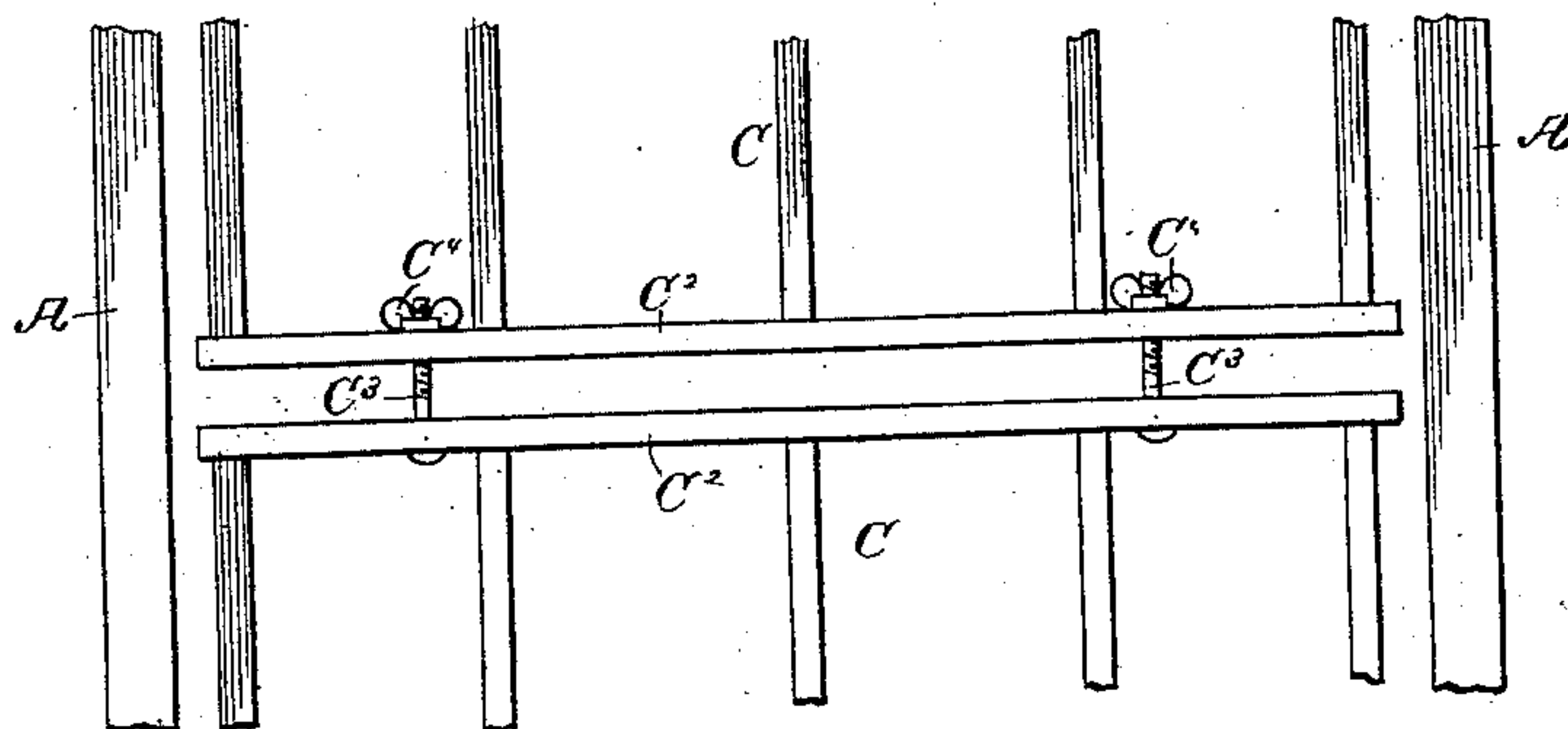


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES L. AMES, OF RIDGELAND, ILLINOIS.

BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 336,616, dated February 23, 1886.

Application filed August 28, 1885. Serial No. 175,570. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. AMES, a citizen of the United States, residing at Ridgeland, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bed-Bottoms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to spring bed bottoms in which the woven-wire fabric is stretched from end to end of the frame, and a series of vertical coil-springs are arranged beneath the woven-wire fabric to assist in supporting the latter.

The improvements to be herein described relate to supports for the vertical coil-springs.

In the accompanying drawings, Figure 1 is a longitudinal vertical section of a bed-bottom embodying my improvements. Fig. 2 is a top view of the bed with the woven-wire fabric and most of the vertical coiled springs removed. Fig. 3 is a top view of a portion of the middle of the bed.

The bed-bottom has the customary rectangular frame, composed of side rails, A, and end rails, B.

C C are suspension-supports, upon which the vertical springs D are seated. Each such support is composed of two sections, C', one end being attached to the upper side of the end rails, B, of the frame beneath the woven-wire fabric, while the other ends almost meet at or near the center of the bed, but at a distance of several inches below the level of the tops of the end rails.

In Fig. 2 the sections C' are joined in pairs to the transverse yokes C² in such manner as to bring the yokes themselves opposite each other in pairs. These pairs of yokes C² are joined at or about the middle by means of a bolt, C³, having a thumb-screw, C⁴, or by other screw-connections.

In using the bed the supports C are shortened or lengthened by turning the thumb-screw C⁴, with the result of raising or lowering

the vertical springs D and varying their pressure against the woven-wire fabric.

Instead of connecting the sections C' in pairs to short yokes, all at one end of the bed may be connected to a single yoke of sufficient length to reach all of said sections, in which case it is necessary to use only as many bolts C³ as are required to prevent the long yokes from bending too much. When the sections C' are joined in pairs to short yokes, it is easier to bring the required supporting force against any particular part of the bed, and the springs mounted on one pair can more readily adjust themselves to the pressure or form of the sleeper, for the reason that the yoke can rock and allow one section to go down with its springs while its companion ascends to a corresponding degree. It is apparent, also, that it is less trouble to make the adjustment when the sections are connected with the adjusting devices in pairs instead of singly, thus reducing the number of said adjusting devices.

The object in placing the ends of the supports C upon the upper side of the end rails is to reduce the power required to operate the tightening-nuts by avoiding the necessity of drawing said supports into almost a straight line while increasing the pressure of the vertical springs upon the mattress, it being well understood that any suspended support requires less increase of tension to raise it a certain distance at its middle if it depends a considerable distance below its ends. In other words, the more the support depends at its middle the less strain is required to hold it in such position. In some constructions suspended supports which can sustain a heavy weight when they depend cannot sustain their own weight when drawn to almost a level with their ends, and the support applied to the upper side of the end rail is also less likely to break away for another reason—namely, because the support will not draw away from the face to which it is applied and pull the nails or staples from the wood. Even if it is not desired to make the support to depend more at the middle than has been done heretofore by placing the ends of the support on the top of the end rails, I am enabled to use a shorter vertical spring, for the reason that then the

support is as much nearer the fabric as the thickness or height of the end rails.

It is to be understood that I do not broadly claim the use of spring-supports having adjusting devices between their ends in connection with the vertical springs, wire fabric, and frame, the same having been heretofore known.

I claim as my invention—

10 1. In a bed-bottom, the combination, with the frame A B A B, woven-wire fabric E, and springs D, of supports C, composed of sections C', connected by yokes C² and adjusting-bolts C³, substantially as shown and described.

15 2. In a bed-bottom, the combination, with the frame A B A B, woven-wire fabric E, and springs D, of downwardly-directed supports

C, composed of sections C', connected in pairs by yokes C², and adjusting-bolts C³, substantially as shown and described.

20 3. In a bed-bottom, the combination, with the frame A B A B, woven-wire fabric E, and springs D, of supports C, composed of sections C', applied by their outer ends to the upper side of the end rails and by their inner ends 25 to the adjustable yokes C², substantially as shown and described.

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

CHARLES L. AMES.

Witnesses:

W. F. BERNBROCK,
CYRUS KEHR.