

(No Model.)

S. S. BURR.

SPRING BED BOTTOM.

No. 330,293.

Patented Nov. 10, 1885.

Fig. 1

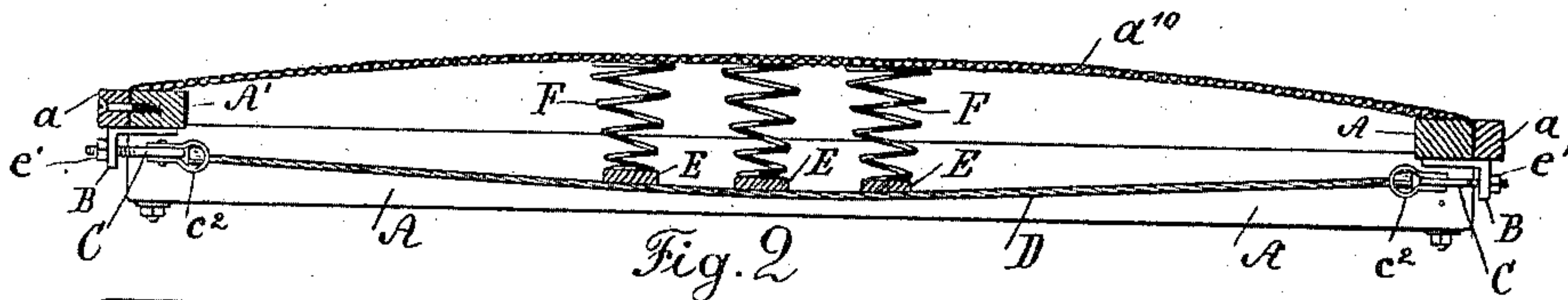


Fig. 2

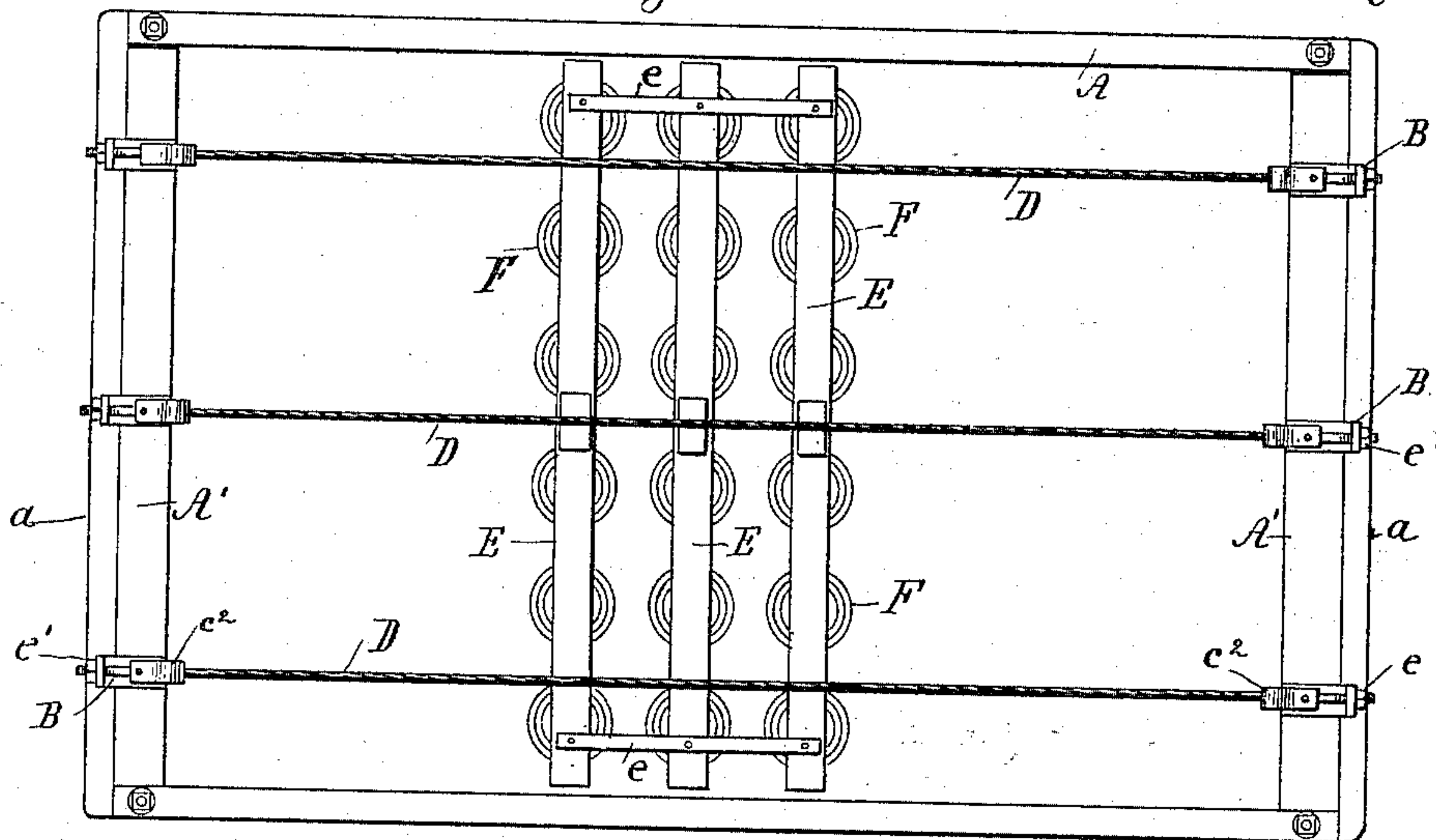


Fig. 3

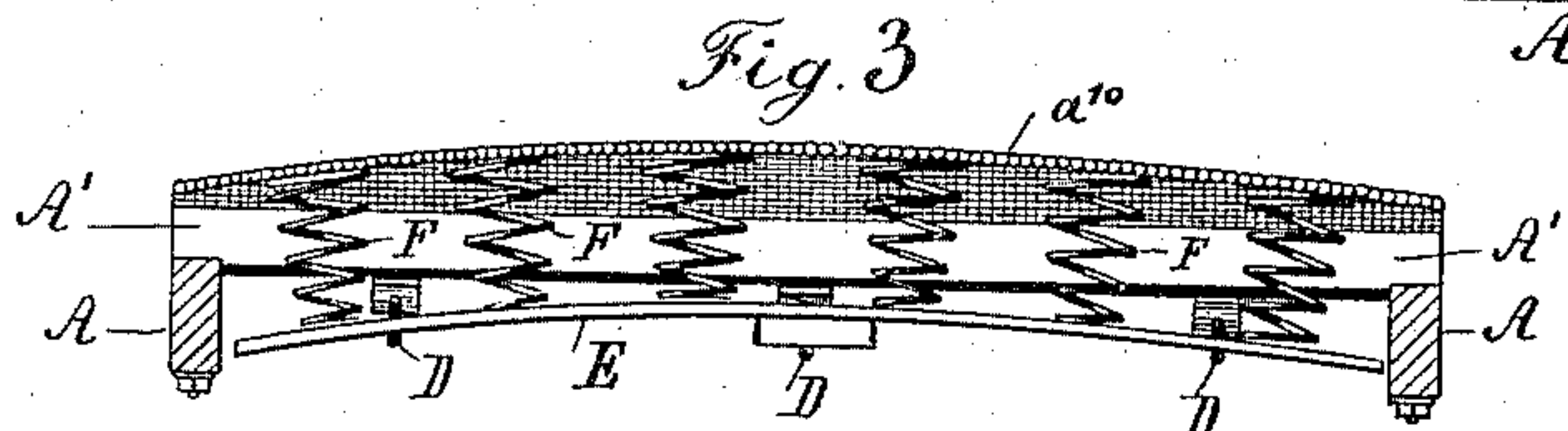


Fig. 4

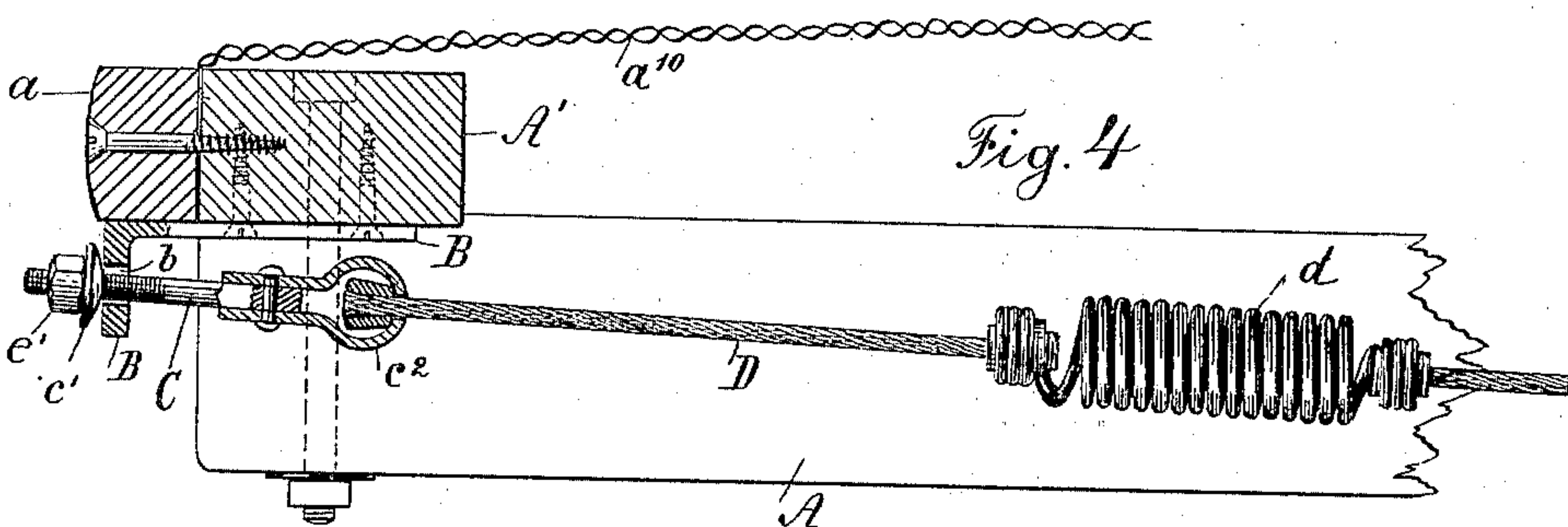
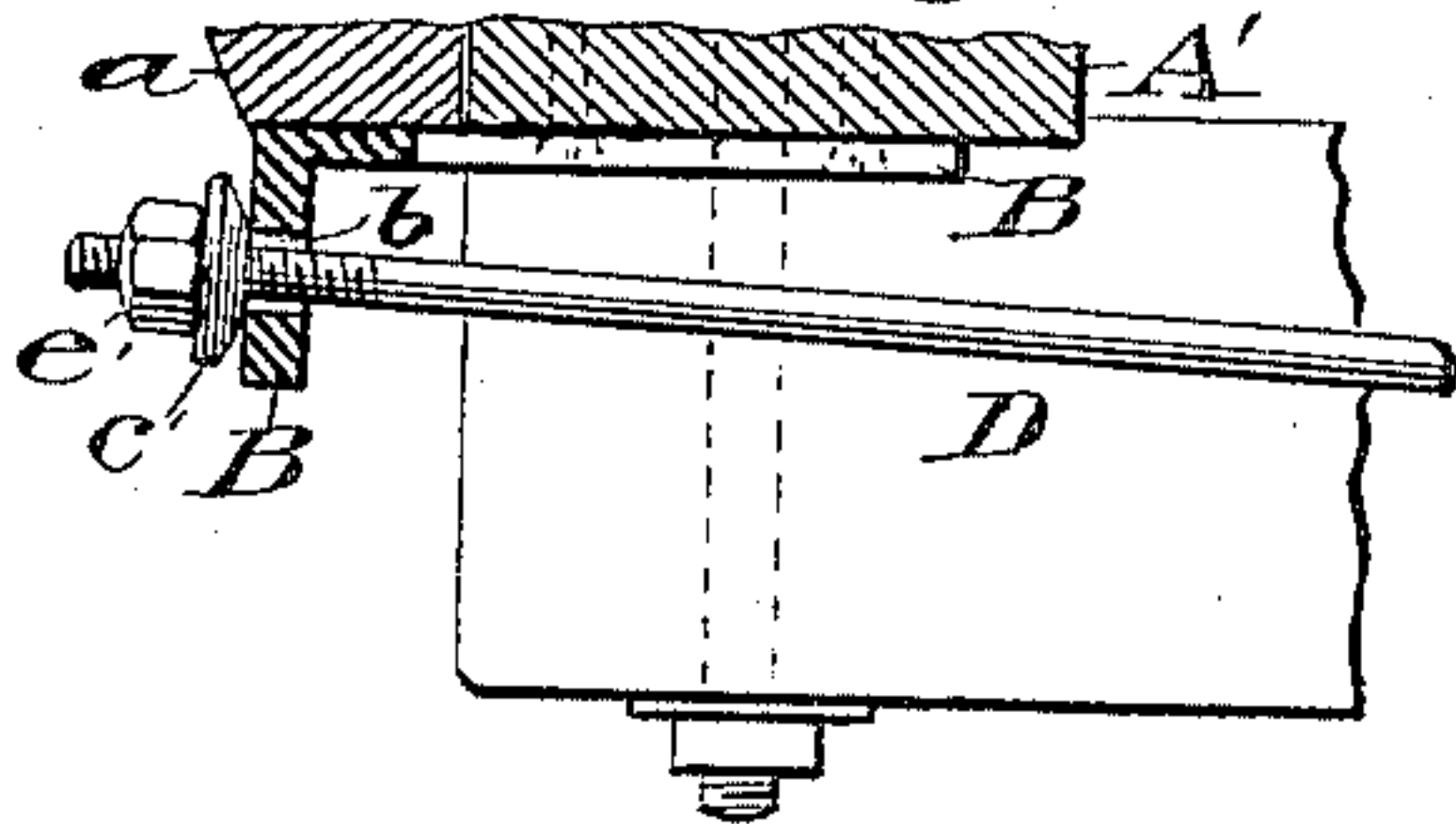


Fig. 5.



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UNITED STATES PATENT OFFICE.

SANFORD S. BURR, OF WINNETKA, ASSIGNOR TO THE BURR BED COMPANY,
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SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 330,293, dated November 10, 1885.

Application filed October 10, 1883. Serial No. 108,614. (No model.)

To all whom it may concern:

Be it known that I, SANFORD S. BURR, a citizen of the United States, residing at Winnetka, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Spring Bed-Bottoms; and I do hereby declare the following to be a full, clear, and exact description of the invention, sufficient to enable others skilled in the art to make and use the same.

Spring bed-bottoms after more or less usage are apt to take a permanent set or depression at those parts which ordinarily sustain the occupant. These irregularities in surface give rise to a great deal of discomfort, and are to be ascribed in measure to the weakening of the springs and in part to the yielding or sagging of the woven fabric which constitutes the cover of the mattress-frame. If attempt be made to guard against these defects by highly stretching the fabric when it is first applied, the tension may be so great that the cover fails to yield or adjust itself to the body, the result of which is that the bed is declared to be "too hard" or to be wanting in requisite elasticity.

My invention is designed to provide a bed-bottom which easily adapts itself to the contour of the occupant, and in which the irregularities or depressions of surface may be easily and quickly corrected without need of restoring weakened springs or of restretching the woven cover in its frame, the result being that the mattress always presents a smooth even surface, whatever the differences in weight of the various persons occupying it from time to time may be and however great the tendency to create permanent depressions therein.

Figure 1 is a longitudinal vertical sectional view of a spring bed-bottom embodying the invention. Fig. 2 is a plan view, and Fig. 3 a view in transverse vertical section, of the same. Fig. 4 is an enlarged detail view in longitudinal vertical section of one end of the bed-bottom, showing a modified form of the adjustable supporting-strip. Fig. 5 is a detail view, partly in vertical section, of a modified form of my invention.

Over the usual side bars, A, and end bars, A', of the mattress-frame is stretched the cover of the bed-bottom preferably consisting of elastic woven-wire fabric a^{10} , having its ends

sustained by means of the clamp-strips a , secured to the end bars of the main frame. To the under side of the end bars, A', are secured the angle-irons B, having in their lower limbs the eyes b , through which pass the bolts C, the threaded ends of which carry the adjusting-nuts e' and the washers $c' c'$, while the inner ends of said bolts are riveted to the straps c^2 . Through the eyes of straps c^2 pass the ends of the supporting straps, cables, rods, or wires D, having retaining-heads and extending longitudinally from end to end beneath the bed-bottom and sustaining the series of slats E. By this arrangement of the angle-irons the adjusting-nuts are in position to be reached by merely lifting the end of the bed-bottom, and an adjustment of the spring-sustaining rods or wires can be much more easily and conveniently effected than would be possible were the means for adjusting the rods or wires upon the inside of the end bars, as has been heretofore proposed. The slats E carry fixed thereon the spiral springs F, of any suitable construction, adapted to bear against the under side of the woven-wire cover in manner to yield readily under the weight of the occupant of the bed. The series of slats E form a firm and even bearing for the springs, and render unnecessary the use of more than two or three suspending-rods. The slats E are not attached to the side bars of the bed-bottom, but are separate therefrom and constitute a freely-moving supplemental platform to sustain the series of spiral springs. The slats E may be preferably connected together by the tie-slats e , joined, as shown, near the outer ends thereof. These tie-slats e serve to maintain the slats E in proper position, and prevent the springs working to the center and becoming entangled or displaced, and hence causing a noisy or uneven action of the bed-bottom.

When the bed-bottom is first constructed, the supporting straps, cables, rods, or wires D will be curved downwardly somewhat, as shown in Fig. 1, and held tightly against tension of the springs F by nuts e' and angle-irons B. By adjusting the nuts at any time the strips, cables, rods, or wires D may be tightened or released, so that corresponding differences in tension will be exerted on coil-springs F and the elastic woven cover a^{10} , by which

means it is plain that any undesirable sagging of said cover may be quickly corrected by adjusting the strip or straps, cables, rods, or wires D beneath the same; or, again, that the tension of the cover may be varied at the several parts, so as to accommodate the mattress to differences in weight of its occupants and enable the said mattress to better resist the differences in pressure, tending to develop undue strains and incipient depressions. By adjusting the central straps, cables, rods, or wires D more tightly than the others a central ridge will be raised on the bed-bottom, which is oftentimes desirable.

Strong coil-springs *d* may be placed at suitable points in straps, cables, rods, or wires D, Fig. 4, if preferred, in which event the elasticity due to said springs will be added to that of the ordinary springs, F, without in the least impairing the capacity of the straps, cables, rods, or wires D for desired longitudinal adjustment.

When stout wire strands are employed as supports in lieu of the cables shown by drawings, the ends of said wires may be threaded and extended directly into the angle-irons B, thus dispensing with the intermediate strap, *c*², and by so much simplifying construction.

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

1. In a spring bed-bottom, the combination, with the main frame and the cover connected to the ends of said frame, of the several rows of spiral springs located beneath said cover, the transverse slats whereon said springs rest,

the tie-slats connecting said transverse slats, the sustaining rods or wires, and means, substantially as described, for adjusting said rods, substantially as set forth.

2. In a spring bed-bottom, the combination, with the main frame and the cover, of the springs beneath said cover, the sustaining-rods provided with screw-threaded connections and adjusting-nuts, and the angle irons for supporting said rods located and arranged substantially as described, whereby the adjusting-nuts of the rods can be operated from the end of the bed-bottom, substantially as described.

3. In a spring bed-bottom, the combination, with the main frame and with the cover connected at its ends to said frame, of the freely-movable supplemental platform, consisting of a series of slats held at proper distances apart, the spiral springs mounted in series thereon and bearing against the cover, and the adjustable suspension-cables which support said supplemental platform and regulate the tension of the spiral springs and of the cover, substantially as described.

4. In a spring bed-bottom, the combination, with a woven-wire mattress and a series of spiral springs supported against the under side of the same on top of movable transverse bars, of a series of cords adjustably fastened to the end bars of the frame supporting the said transverse bars, substantially as shown and described.

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