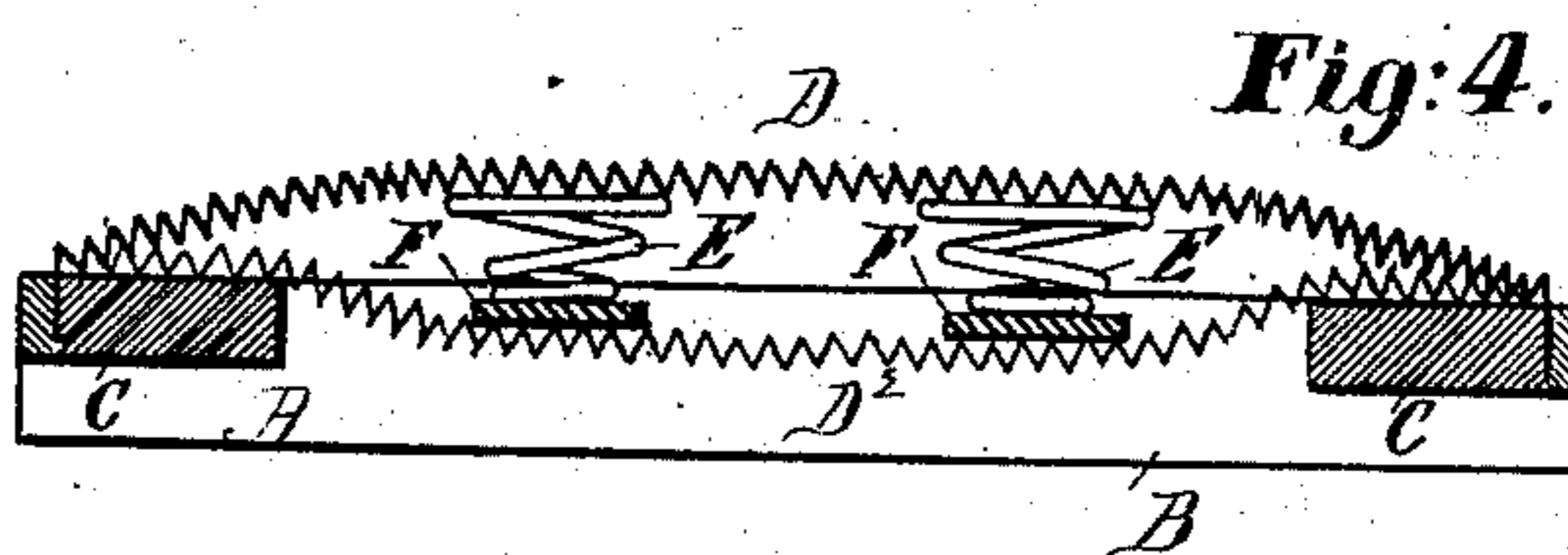
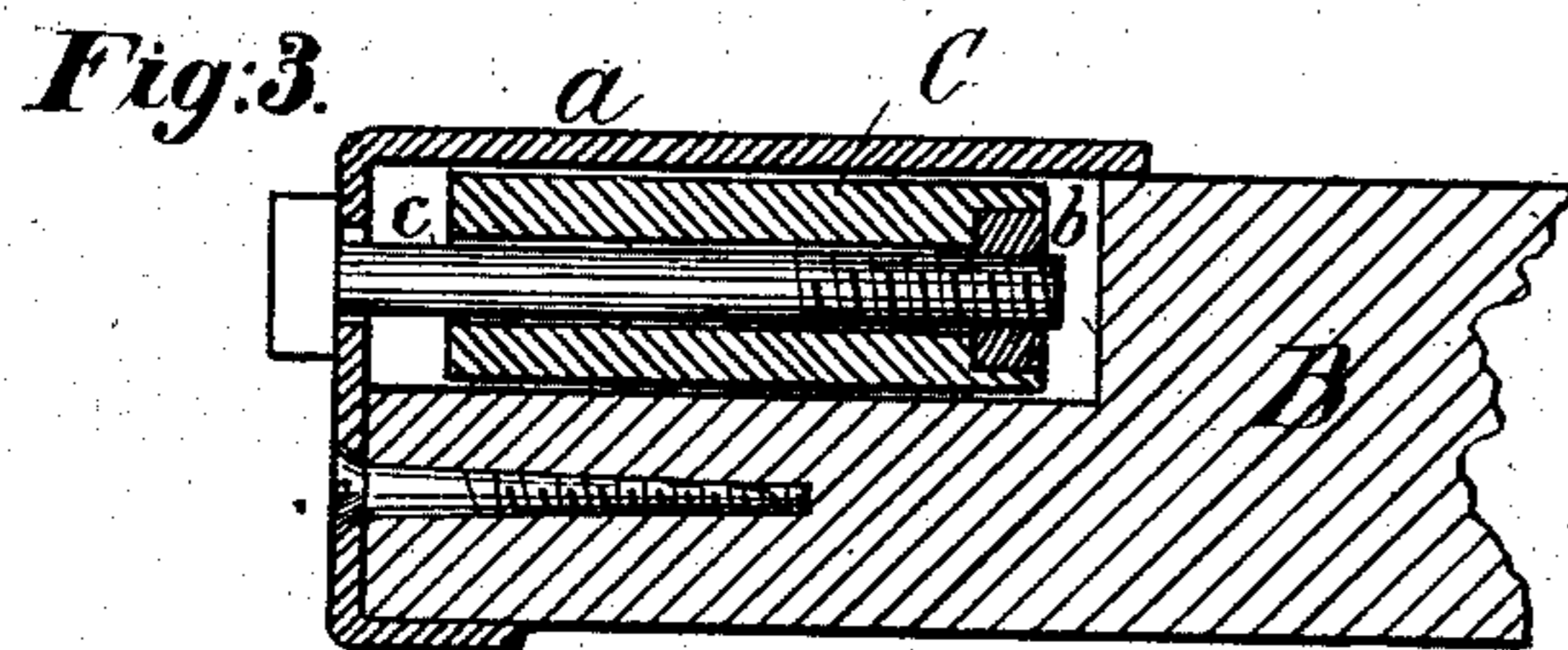
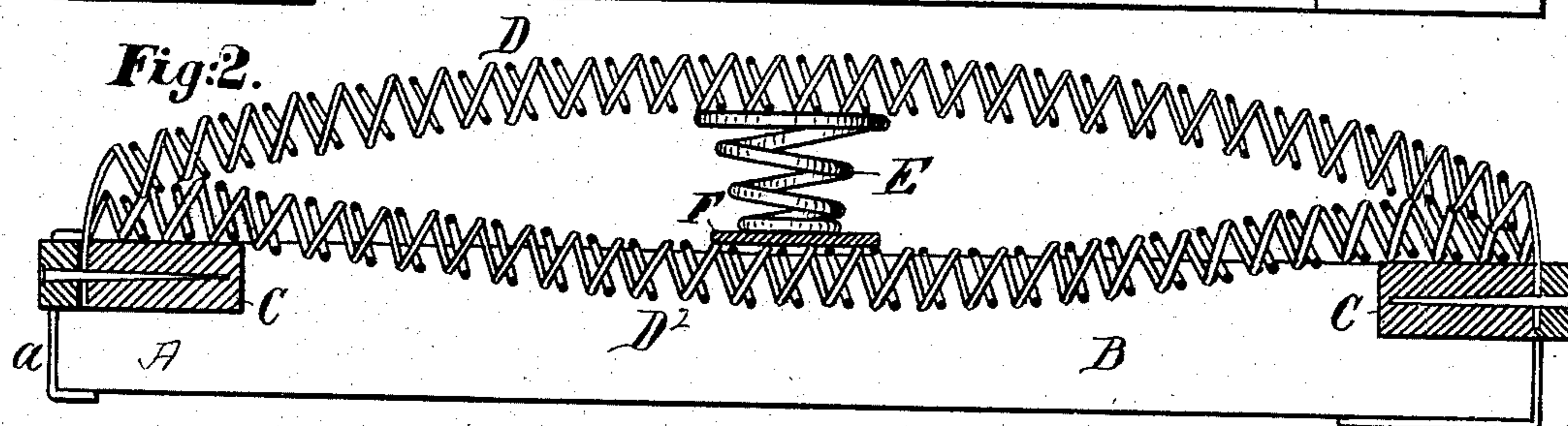
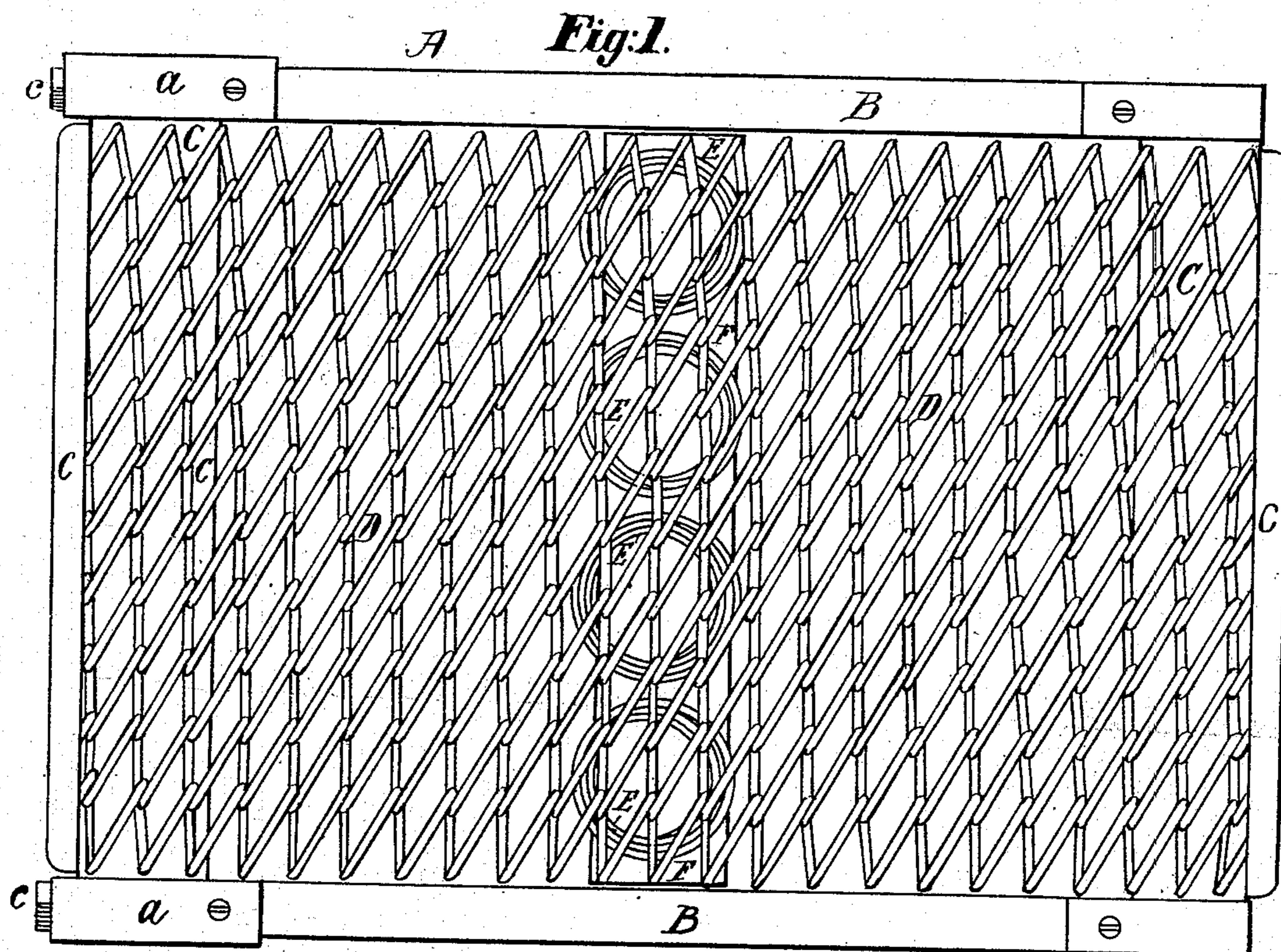


(No Model.)

M. H. CREAGER & T. BURDICK.
Spring Bed Bottom.

No. 238,216.

Patented March 1, 1881.



Witnesses:

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Attorneys.

UNITED STATES PATENT OFFICE.

MARVIN H. CREAGER AND THEODORE BURDICK, OF GRAND HAVEN, MICH.

SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 238,216, dated March 1, 1881.

Application filed July 31, 1880. (No model.)

To all whom it may concern:

Be it known that we, MARVIN H. CREAGER and THEODORE BURDICK, both of Grand Haven, 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 full, clear, and exact description.

This invention relates to that class of spring bed-bottoms in which vertical springs are arranged between an upper and lower flexible frame-work.

Heretofore a spring bed-bottom has been constructed with the vertical spiral springs secured at their lower ends to spring-slats, and connected together at their upper ends by tie-rods, the said springs being also connected at their top ends to an upper frame-work composed of spring-slats connecting with each other by tie-rods. This construction is, however, complicated and liable to get out of order, and, moreover, does not present the advantages of the spring woven-wire work which we employ in connection with the spiral springs.

Under our invention the vertical springs are arranged between two horizontal layers of fabric, each made of wire formed into a series of spiral springs interwoven with each other; and means are employed for stretching such layers, as hereinafter explained.

In the accompanying plate of drawings our improved spring bed-bottom is illustrated.

Figure 1 is a plan view; Fig. 2, a longitudinal vertical section; Fig. 3, a detail sectional view of one end of one side rail of the frame, and Fig. 4 a longitudinal section in modification.

In the drawings, A designates a frame, made of wood or any other suitable material. This frame is composed of two parallel side pieces, B B, and two parallel end pieces, C C, joined together, and is of a convenient size either to be introduced into an ordinary bedstead, or, by having suitable supporting-legs, to be used of itself, dispensing with the ordinary bedstead-framing.

D D² are two horizontal layers of a woven fabric made of wire, and with a series of parallel spiral springs interwoven with each other and running in the direction of the length of the frame A. Between the two layers of woven

fabric D D² are arranged a series of vertical spiral springs, E, which may be in one or more rows, and if in one, midway, or thereabout, of the length of the fabrics. These several springs E of each row at their lower ends are attached to a common flexible rail, F, of wood, extending across the width of the fabric, and this rail rests upon the upper side of the lower fabric, D², and the upper fabric, D, lies and rests upon the upper ends of the springs E. The woven fabrics D and D², at each end, are secured in any proper manner to the end pieces, C C, of the frame. The end pieces of the frame are set into the side pieces, and they are there confined by metallic straps *a*, surrounding the same, which are fastened to the side pieces by screws or by other suitable means. One end piece is arranged to move within the sockets or bearings in the side pieces and in the direction of the length of the side pieces, and such end piece is provided at each end with a screw-nut, *b*, to receive screw-bolts *c*, which pass through the straps at the end of each side piece. By turning these screw-bolts the end piece is moved, and thus the tension of the wire fabric can be adjusted and held.

A spring bed-bottom made of woven-wire fabrics and spiral springs, as above described, is found to be most effectual in obviating all sagging, so common to spring bed-bottoms at the central part of the bed-bottom, because the upper and lower fabrics, with the springs between them, change the direction of the strain, and divides the distance between the support at each end of the bed. Again, as the springs rest upon a flexible rail, the pressure upon the upper fabric is divided—that is, whatever weight is upon one of the springs is supported by the whole lower fabric.

By preference the central part of the bed-bottom is elevated slightly, so a greater weight is required to level it with the other portions of the bed-bottom, and sufficient to prevent sagging where the person may be lying.

In Fig. 4 is shown, in longitudinal section, two rows of spiral springs, E, between the two woven-wire fabrics.

Heretofore a spring bed-bottom has been made of a layer or sheet of woven-wire fabric, the tension of which could be adjusted, and a spring bed-bottom has been made of upper

and lower independent longitudinal corrugated metal springs combined with intervening spiral springs, one or more for each pair of plates, the spiral springs being supported on transverse slats resting on the lower plate. These constructions of bed-bottoms do not constitute our invention, and are not claimed by us.

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

A spring bed-bottom composed of two horizontal layers of woven fabric, and of intervening vertical spiral springs E and supporting-

rail F, in combination with a frame, A, composed of side pieces, B B, and adjustable end pieces, C C, connected with the side pieces by screw-bolts and nuts, all substantially as and for the purpose described. 15

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses. 20

MARVIN H. CREAGER.
THEODORE BURDICK.

Witnesses:

J. W. KNIGHT,
A. A. TRACY.