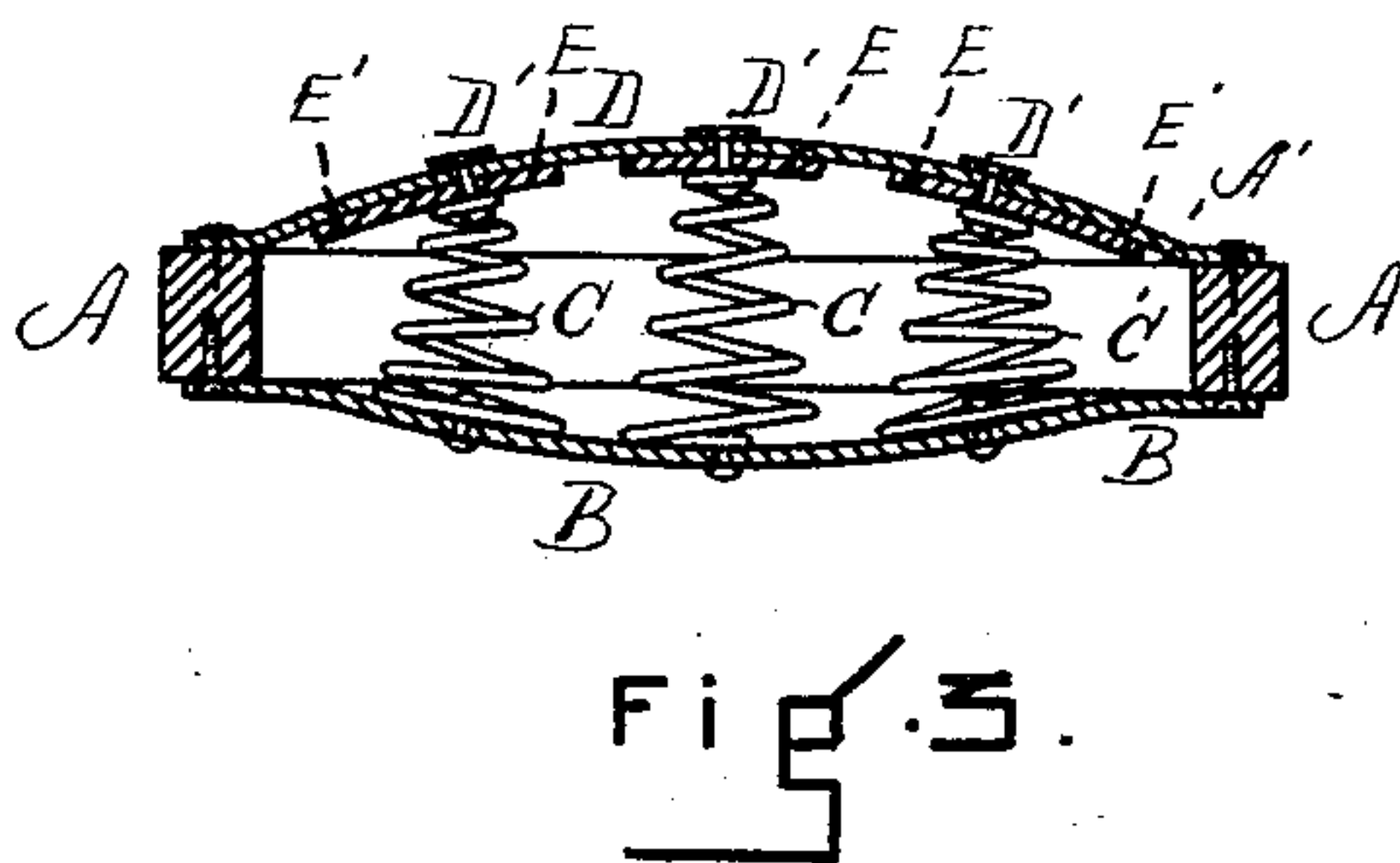
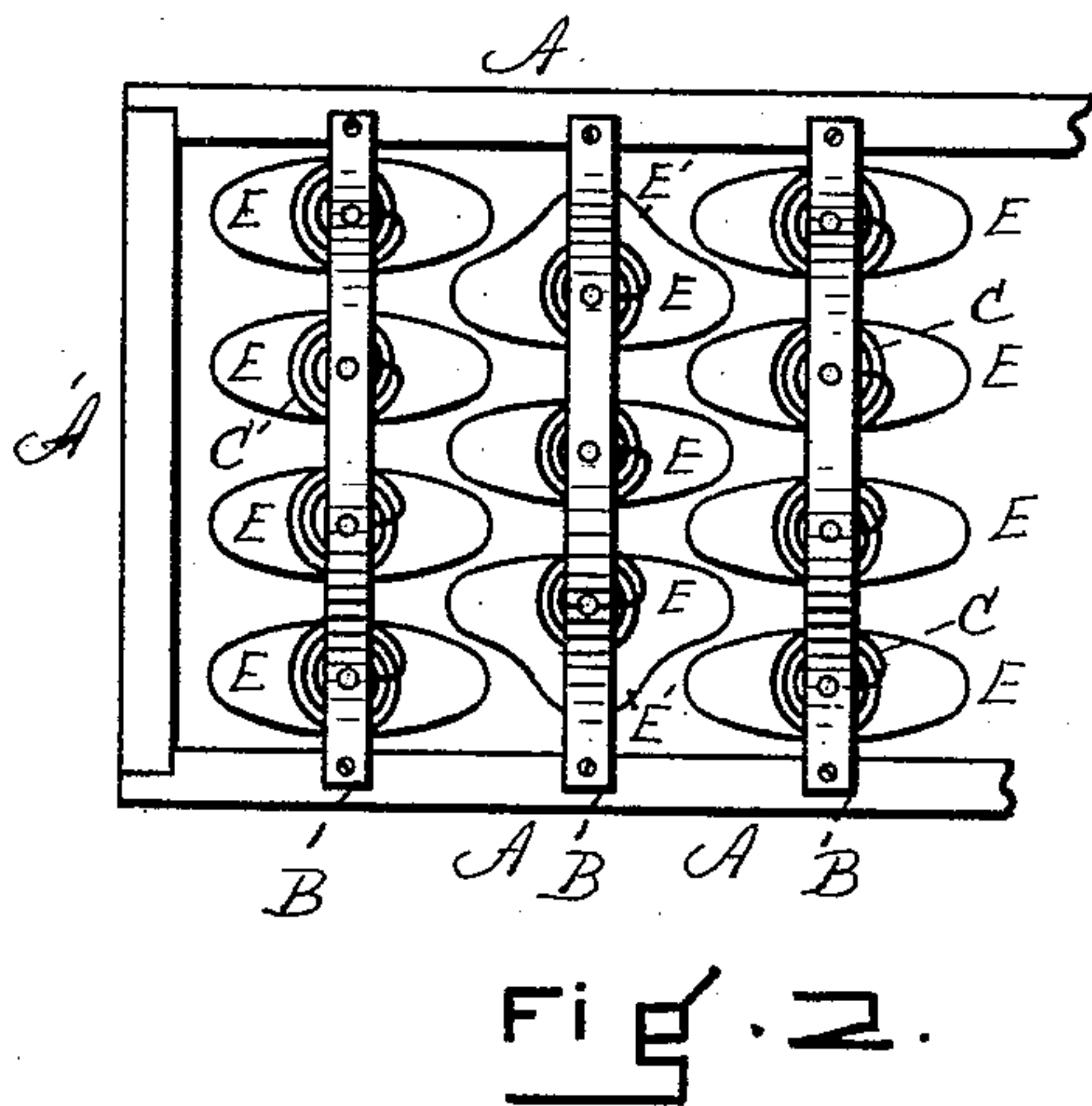
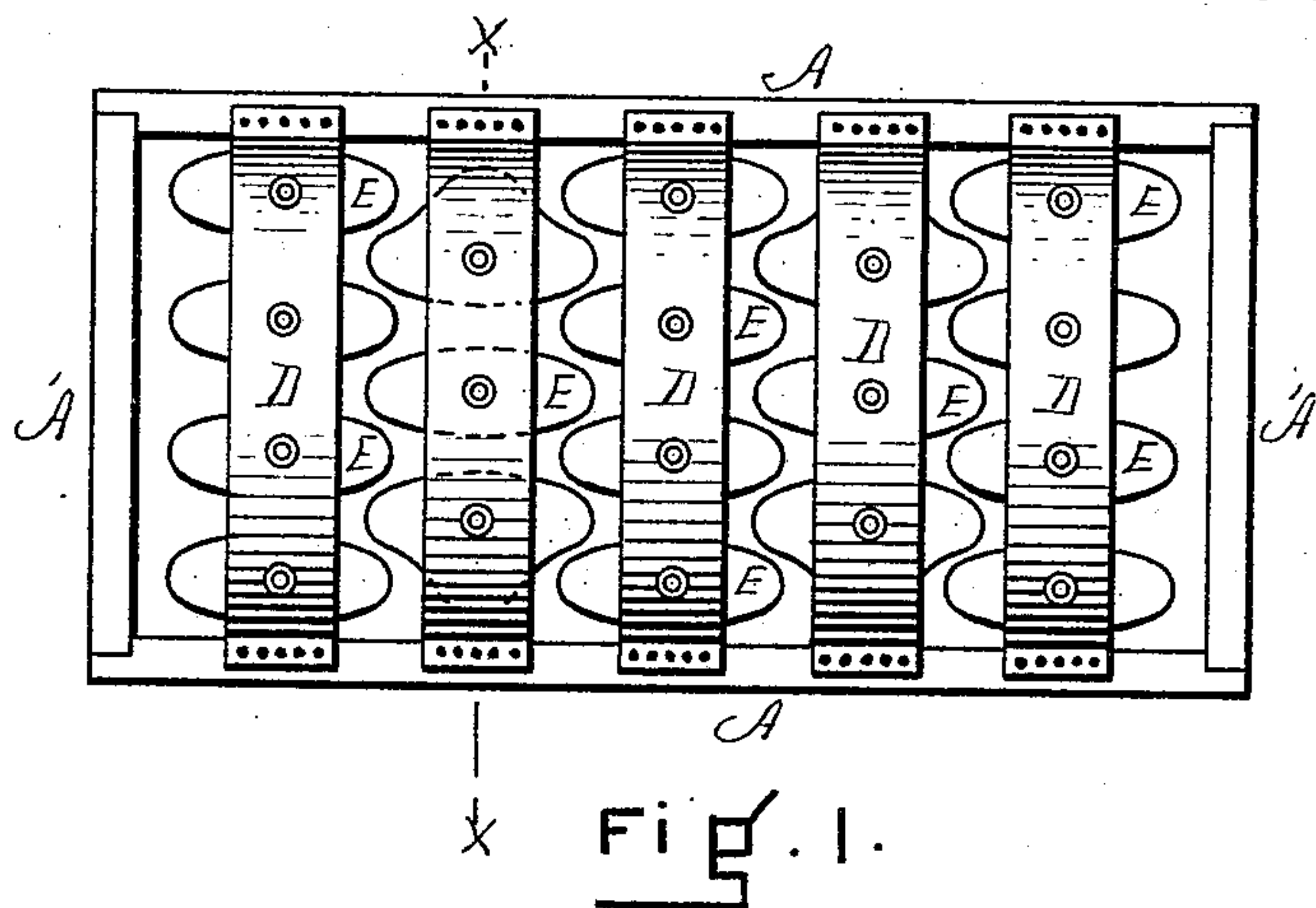


(No Model.)

F. H. HENRY.
CAR SEAT.

No. 500,204.

Patented June 27, 1893.



WITNESSES

J. M. Hartnett.
B. W. Williams

INVENTOR

Fred H. Henry.
By his Atty.
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UNITED STATES PATENT OFFICE.

FRED H. HENRY, OF WAKEFIELD, MASSACHUSETTS, ASSIGNOR OF ONE-HALF
TO THE WAKEFIELD RATTAN COMPANY, OF MASSACHUSETTS.

CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 500,204, dated June 27, 1893.

Application filed February 16, 1893. Serial No. 462,590. (No model.)

To all whom it may concern:

Be it known that I, FRED H. HENRY, a citizen of the United States, residing in Wakefield, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Car-Seats, of which the following is a specification.

This improvement relates to the internal construction of seats or chairs for railway cars with especial relation to the springs and the caps or disks supported thereby.

In the construction of car-seats, it is usual to provide parallel transverse rows of springs which are supported by metallic slats, each spring being surmounted by a cap or disk, and each row of springs being provided on its upperside with a strip of webbing stretched across the frame. The difficulty is that between each two rows of springs is a long space into which the upholstery has a tendency to fall and sag. It is the object of my present invention to obviate this difficulty, by so arranging the springs, and constructing the caps or disks that said caps or tops interlap, whereby the parallel spaces above referred to are practically filled, the only spaces left unprotected being small and irregular.

In the accompanying drawings, in which similar letters of reference indicate corresponding parts, Figure 1 is a plan view of an unupholstered car-seat embodying my invention. Fig. 2 is a plan view of the under side of a portion of the same. Fig. 3 is a section on line *x*, Fig. 1.

A A' represent, respectively, the side rails and end rails constituting the frame.

B B represent transverse slats, preferably metallic, secured at their ends to the under sides of the side rails A. Each said slat supports a row of helical springs C set with their small ends up and their largest coils secured to the slats. These springs are arranged so that each spring in a transverse row is opposite the space between the two next springs in the next row. In other words, while the transverse rows are straight and continuous, the longitudinal rows are non-continuous, because all the springs in one transverse row are diagonally opposite the springs in the next rows. Each spring is surmounted by a disk or cap, and each row of springs has stretched across it above the tops or caps a strip of webbing D, the springs, caps, and

webbing being secured together by rivets D' or any other suitable means. The tops or caps,— which are lettered E in the drawings—are not round, as has been the case in a previously granted patent, but are longer than they are wide and are preferably, with certain exceptions noted below, substantially elliptical; and are set transversely with the slats, that is to say, so that a longitudinal line extending centrally through each cap E would be parallel with the side rails A. These caps are made of sufficient length to allow each cap to extend between the two diagonally opposite caps in the next row, so that the caps or tops in the different rows interlap, as shown. The effect is that the narrow unoccupied spaces between the transverse rows of springs are entirely done away with, and hence the upholstery will not fall or sag between the rows of springs. It is apparent that if all the tops or caps were of regularly elliptical shape, the caps at the opposite ends of every second row would, with the present alternate arrangement of springs, be at such a distance from the side rails that quite a space would be left at those points. In order to substantially fill these spaces and prevent sagging at these points, each end cap of each alternate row is provided with a horizontal extension E', such extension being on the side or edge next the side rail A.

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

In a seat or chair for railway cars, in combination, alternate rows of springs, as C, each spring being surmounted by an elliptical cap or top E, and alternate rows of springs, as C, the inner springs in the last named rows being surmounted by elliptical caps or tops and the outer or end springs being surmounted by caps or tops made substantially elliptical on their inner edges and provided with horizontal extensions E' on their outer edges, the springs in each row being set opposite the spaces in the next row, and the said caps being set transversely with the rows, substantially as set forth.

FRED H. HENRY.

Witnesses:

HENRY WILLIAMS,
J. M. HARTNETT.