

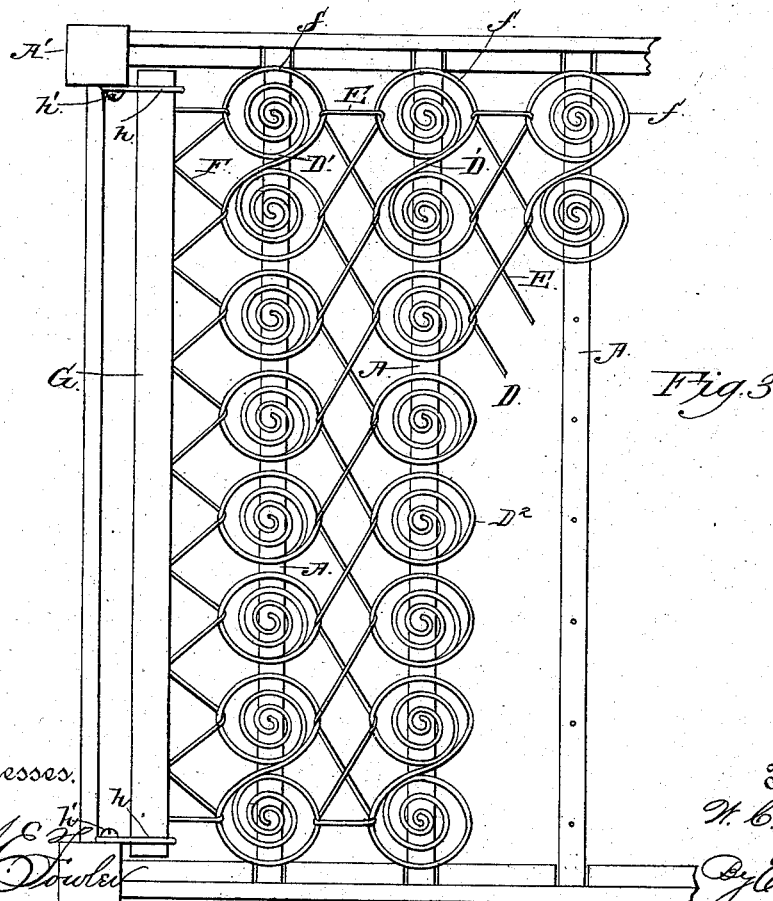
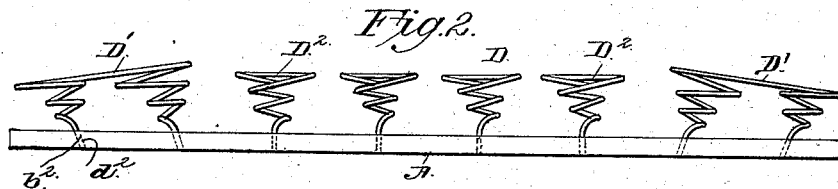
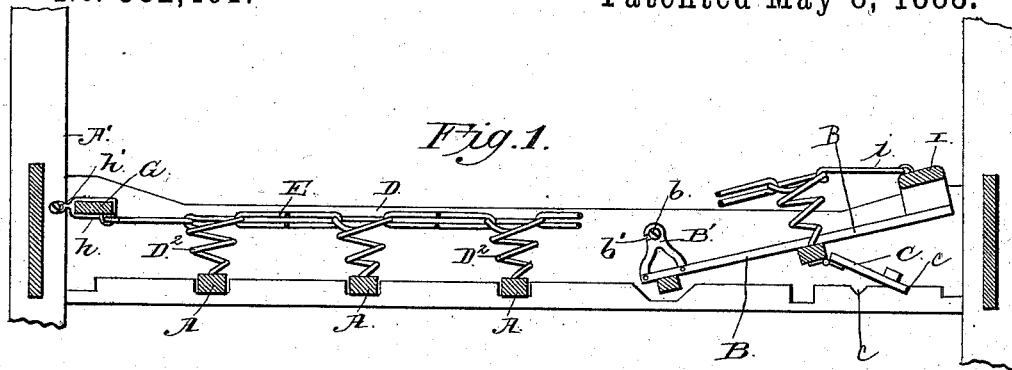
(No Model.)

W. C. BAILEY.

BED BOTTOM.

No. 382,401.

Patented May 8, 1888.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM C. BAILEY, OF CHICAGO, ILLINOIS.

BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 382,401, dated May 8, 1888.

Application filed July 13, 1887. Serial No. 244,176. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. BAILEY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bed-Bottoms; and I do 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 the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in bed-bottoms; and it consists of the peculiar construction and arrangements of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

The object of my invention is to maintain all the springs of a bed-bottom in an upright vertical position and prevent them from overlapping one another when a side strain or pull is exerted upon any one series of springs, and thereby secure to a greater degree the desirable free and certain action of the springs sought for.

In the accompanying drawings, which illustrate a bed-bottom embodying my improvements, Figure 1 is a vertical longitudinal sectional view. Fig. 2 is a detached view, in side elevation, of one series of springs affixed to a rigid supporting-strip, to show the manner of arranging the end springs. Fig. 3 is a top plan view of a portion of a bed-bottom, showing the arrangement of the springs and lacing wire or cord and the method of attaching the same to the bedstead.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates a series of rigid supporting-strips, which are preferably made of wood and are removably fitted in recesses or sockets formed in a bedstead, A', in the ordinary well-known manner. Two or more of these strips A at the head of the bed are connected by short transverse strips B to form an adjustable head-section, which is hung so as to be capable of free adjustment on a pivot, b, in the manner which I will presently describe.

The head-section is supported in its adjusted

positions by means of inclined braces C, which are hinged at one end to one of the strips A, as shown in Fig. 1, and the opposite ends of the braces are removably fitted in notches c, formed in the bedstead A'.

A bracket or casting, B', is affixed at the inner end of the transverse strips B of the head-section and at each side of the latter, adjoining the sides of the bedstead, and an open slot, b', is formed in the upper end of the casting. A pivot pin or screw, b, is secured to the inner side of the bedstead, and this pin is fitted in the open slot of the casting to support the inner end of the head-section.

The head-section is hung or suspended from the fixed pivots when the outer end thereof is elevated for the convenience of the occupant of the bed, and the head-section can be readily elevated and depressed as the inner end thereof is elevated above and out of contact with the notched rails of the bedstead, the inclined braces being properly adjusted to engage one of the series of notches c, to properly support the section.

The head-section, when not in use, assumes a horizontal position, and is supported by the notched rails of the bedstead in the same manner as the other slats of the bottom, the castings B' being disengaged from the fixed pivots when the head section is lowered to a horizontal position.

D designates the springs, one series of which is secured to each supporting-strip A. The end springs, D', of each series of springs D are made double, of the class known as "twin springs," and each intermediate spring, D², or those of the series D between the end twin springs, D', are independent of each other and the twin springs, or "single." Each spring of the series is made from a single piece of wire, which is coiled into helical shape, and the wire of the lower coil, which forms the base of the spring, is extended to provide a shank, b², which is inserted firmly into the supporting-strip A. The shanks of the intermediate springs, D², are straight, and inserted vertically into the supporting-strip to support the said intermediate springs in a vertical position; but the shanks of the end twin springs are inclined at an angle to a vertical line drawn centrally through said springs, as seen in Fig.

2, and they are inserted in sockets d^2 in the supporting-strip A, which are correspondingly inclined to the vertical sockets for the shanks of the intermediate springs. The end springs thus normally assume a vertically-inclined position, so that a vertical line drawn centrally through the intermediate springs and the twin springs at opposite ends of the series of springs D and the strip A are inclined in reverse directions to each other and away from the intermediate springs, D^2 , of the series.

A single continuous lacing wire or cord, E, is connected to the upper coils between each two adjoining series of springs, the wire being alternately connected to the spring of one series and then to the alternate spring of the other series, as clearly shown in Fig. 3. In lacing the wire or cord it is first passed through two adjoining end springs of contiguous series, and the ends of the wire are alternately connected to alternate springs, the free ends of the wire being finally connected together, preferably by twisting them around one another.

The inclined end springs of the series of springs are drawn nearly to a vertical position by the wire, and said end springs thus exert a constant tension or strain on the lacing-wire and the intermediate springs to which the wire is connected, and thus serve to maintain the intermediate springs in an upright position and prevent them from lapping, thus insuring the full and independent action of all the springs. The upper coil of each spring is made substantially elliptical or oval shaped, as at f , and the longer or greater axis of this elliptical coil of the spring is arranged transversely across the supporting-strip A, to which the spring is connected, substantially at right angles thereto. The springs of two adjoining series have the major axes of the elliptic coils thereof arranged substantially in line with each other, and the upper coils of the said adjoining springs are thus brought nearer together, the lacing-wire being connected to the upper elliptic coils of the springs. By this construction and arrangement of parts there is less loose wire between the springs when they are telescoped or folded together, and the springs are more compactly disposed within a smaller compass when folded for storage or shipment.

The series of springs at one end of the bed—the foot thereof—is connected by a lacing wire or cord, F, to a horizontal slat, G, which is arranged in the plane of the upper coils of the springs, the wire being alternately connected to the slat and the series of springs. The slat

in turn is connected to the foot-post of the bedstead by means of wires h , which loop over the head of a screw, h' , in the post, so that they can be readily detached. The end series of springs at the head of the bed are connected to a horizontal slat, I, which is affixed to the bars B by a lacing wire or cord, i , as shown. If the adjustable head-section of the bed is dispensed with, both end series of springs are connected with the head and foot posts of the bed, respectively, by means of slats and connecting-wires of the character employed for connecting the springs to the foot of the bedstead.

The operation of my invention is obvious from the foregoing description, taken in connection with the drawings.

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

1. A bed-bottom having the intermediate springs provided with vertical shanks fixed in supporting-strips, and twin end springs having shanks inserted diagonally in said strips, in combination with a single continuous lacing wire or cord connected to alternate springs of two adjoining series, substantially as described.

2. In a bed-bottom, the combination of the horizontal strips, the end springs having the inclined shanks inserted diagonally in the strips, intermediate springs arranged in continuous series with the end springs, and a lacing-wire connecting all the end and intermediate springs of two adjoining series, and having its ends connected together and unattached to the bedstead or the horizontal strips, as and for the purpose described.

3. In a bed-bottom of the class described, an adjustable head section, B, adapted to assume a horizontal position and rest upon the notched rails of the bedstead, in combination with the bracket castings B' , affixed to said head-section and having the slots b' , which open through one edge thereof, pivots b , affixed in the bedstead at suitable points to suspend the inner end of the head section out of contact with the notched rails of the bedstead when fitted in the slots of the bracket-castings, and means, substantially as described, for maintaining the free end of the head-section in its adjusted position, as and for the purpose set forth.

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

WILLIAM C. BAILEY.

Witnesses:

P. C. FEENEY,
EDWARD BRADLEY.