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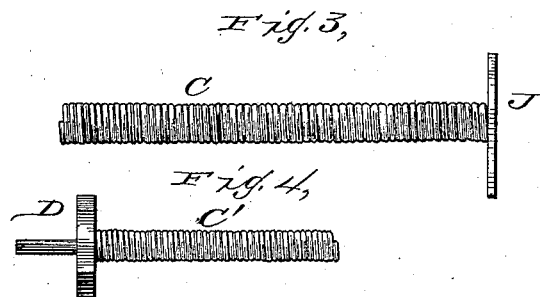
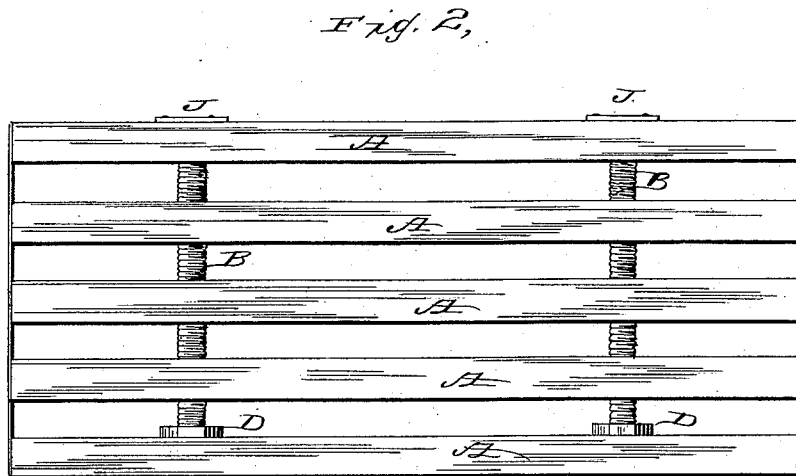
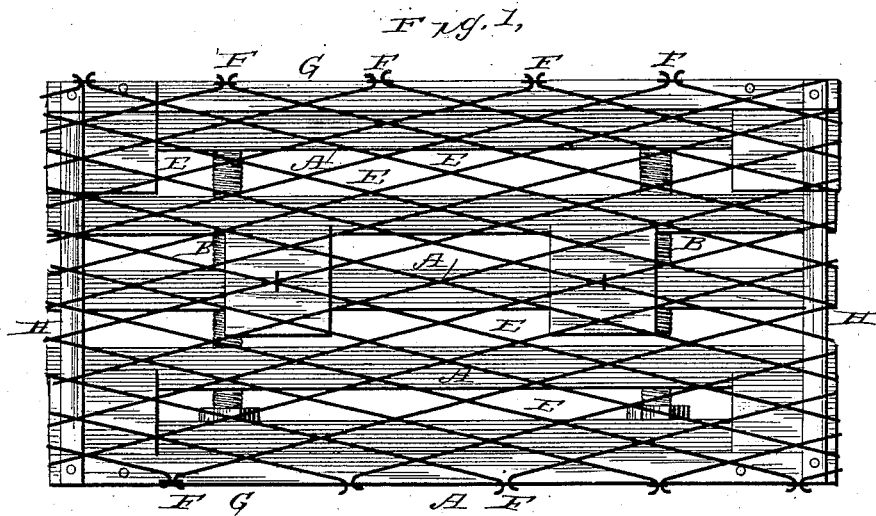
2 Sheets—Sheet 1.

E. W. KEELER.

BED BOTTOM.

No. 266,999.

Patented Nov. 7, 1882.



WITNESSES:

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(No Model.)

2 Sheets—Sheet 2.

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Fig. 7,

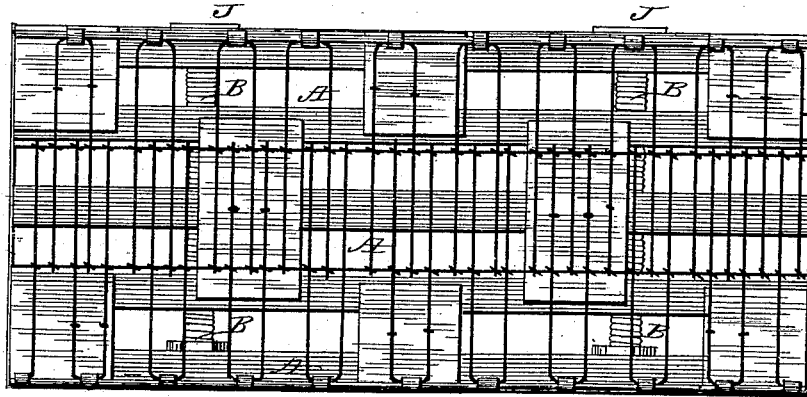


Fig. 6,

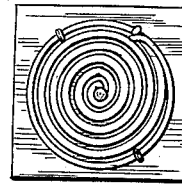


Fig. 5,

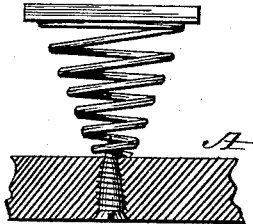
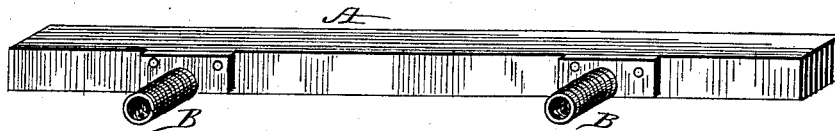


Fig. 8,



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UNITED STATES PATENT OFFICE.

EZRA W. KEELER, OF NEW YORK, N. Y.

BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 266,999, dated November 7, 1882.

Application filed July 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, EZRA W. KEELER, a citizen of the United States, residing in the city of New York, county and State of New York, have invented new and useful Improvements in Bed-Bottoms, of which the following is a specification.

My invention relates to that class of bed-bottoms provided with springs capable of adjustment and of being varied in width; and it consists, first, in combining a series of slats by means of flexible screws that serve to vary the width of the bed, and at the same time admit of their being folded or rolled up for packing away or for shipment; secondly, in combining with and supporting above a base-frame formed of a series of slats an adjustable skeleton frame; thirdly, the combination of the base-frame and the adjustable skeleton frame, sustained and supported in their relations to each other by means of adjustable coiled springs, all arranged to operate together in such a manner as to permit of the proper adjustment for compensating for unequal pressure at different parts thereof for the greater ease and comfort of the occupant, and at the same time retain their perpendicular tendency.

That I may more clearly explain the details of my said improvements, I will first refer to the drawings, in which—

Figure 1 represents a top view of my bed-bottom contracted to a narrow width. Fig. 2 represents a view of the base part or series of slats united by two flexible bolts. Figs. 3 and 4 represent the flexible bolt in two parts, made of closely-coiled wire, one to intersect the other as a threaded bolt within a nut. Fig. 5 represents one of the coiled supporting-springs with cap or bracket-piece connected at its top, and end section of slat attached to its lower end. Fig. 6 represents the under surface of the cap or bracket with coiled supporting-spring attached; Fig. 7, a modification of Fig. 1, with rods arranged at right angles above and across the lower slats instead of diagonal; Fig. 8, means for nuts, &c.

A A A A represent slats forming the base-frame, and B B flexible connections for contracting the outer dimensions of the slats.

C is a hollow tube, formed of coiled wire, provided with a flange, J, by which the tube

or bolt is held in position, and C' is another, but of smaller diameter, suitable to intersect the former closely as a screw and nut, for which they are intended to serve, and at the same time retain their usual flexibility.

D is a hand or thumb wheel, rigidly secured to the male screw, by which the latter is to be operated and adjusted within its counterpart C. It is obvious, however, that the thumb-wheel or other suitable contrivance for operating the threaded device may be applied to the female or the larger tube. The result would be the same either way. The male screw C' is provided with a reduced end, consisting of a wire of suitable size inserted and properly secured within one end, forming a journal adapted to be fitted within one of the outer slats A A. I would remark, however, in this connection, that the screw itself may extend through the slat and be secured by suitable flanges, either adjustable thereon or fixed, thereby forming a shoulder or shoulders to act against one or both sides of the outer slat, and so make it unnecessary to insert the spindle into the end of the flexible bolt, as shown.

E E E E are smaller wires, in this instance arranged diagonally across the base in a manner forming diamond-shaped openings between them, as shown in Fig. 1, and F F F F are loops formed at the ends of those which are connected to the side slats, G G, where they are properly pivoted by pins or other connections for that purpose, as shown.

H H are connections for holding the slats or side bars, G G, in a contracted or desired position.

The ends of the slats or wires represented at the end marked E E E E may be united by hinging together or by a covering of any suitable material.

When I employ wire for the upper surface of my bed-bottom, I prefer to crimp each one at every point where they cross each other, for the purpose of allowing the greatest freedom for action, which insures ease and less liability to creak.

The method of adjusting my improved bed-bottom is as follows: When the base part, consisting of the series of slats, is to be adapted to the width of any particular sized bedstead

or frame, they are moved in the desired direction by turning the screw or screws in the proper direction for the purpose of either expanding or contracting, as the circumstances of the case may require; and the upper part is expanded or contracted and held in a fixed position by suitable fastenings, as set forth, or their equivalent. I would remark, however, that a single flexible bolt will serve to adjust, expand, and contract the width of the bed-bottom by forming the bolt with its thread or spiral half right hand and the other half left—as, for instance, a right-and-left screw. The thumb projection or flange to be secured thereon should in this case be located at about the center of said bolt; and I sometimes secure to the slats A A, in conjunction with the openings therein through which the bolt or bolts are operated, strips of metal—as sheet-iron, &c.—for the purpose of intersecting the spaces between the coils, thereby serving as a nut, as shown in Fig. 8, which, when acted upon by the screw, causes the slat to move in the direction carried by it.

The modification of Fig. 1 shown in Fig. 8 of the drawings is adapted to expand and contract telescopically; or, in other words, the slat or wires are connected so as to support each other, as shown, or by any equivalent method, and at the same time admit of being moved together.

I have referred more particularly to spiral or helical springs for the elastic supports between base and top; but I do not intend to confine myself to the particular form specified in the foregoing, but propose to employ other forms in combination with said base and top surface, as from time to time may seem best. I also intend to cover the said bed-bottom with a removable sack, which not only tends to keep the parts clean and protected from dust, vermin, &c., but which may be readily removed and cleansed at the option of the housekeeper without the necessity of withdrawing nails or other fastenings. The sack is also advanta-

geous as a wrapper for inclosing the bed when rolled up for packing away or shipments, lessening the liability to lose parts thereof.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is—

1. In a bed-bottom, the combination, with a series of slats, of a flexible bolt or bolts for uniting the parts together and permit of being folded or rolled together, substantially as set forth.

2. In a bed-bottom, the combination, with a series of slats, of one or more flexible bolts adapted for adjustment, whereby the width of the bottom may be varied, substantially in the manner and for the purpose set forth.

3. In a bed-bottom, the combination, with a series of slats adapted to form a base and an upper adjustable surface, substantially such as described, of spiral supporting-springs with connecting-caps for adjustment, substantially as and for the purpose set forth.

4. A bed-bottom with a base consisting of a series of slats flexibly and adjustably connected by one or more bolts, substantially as described, an upper adjustable surface composed of crimped cross-wires supported and held in position by a series of coiled springs, substantially as set forth.

5. A bed-bottom provided with a series of slats connected by one or more flexible bolts, adapted to be expanded or contracted by said bolt or bolts, and the intersecting nuts, or strips of metal, attached to said slats, substantially as described.

6. A bed-bottom consisting of an adjustable base composed of a series of slats and an upper surface supported by elastic springs, and adapted to expand and contract in conjunction with the base, substantially as and for the purpose set forth.

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Witnesses:

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