C. EADE.

Spring Bed-Bottom.

No. 210,508. Patented Dec. 3, 1878.

Fig. 1.

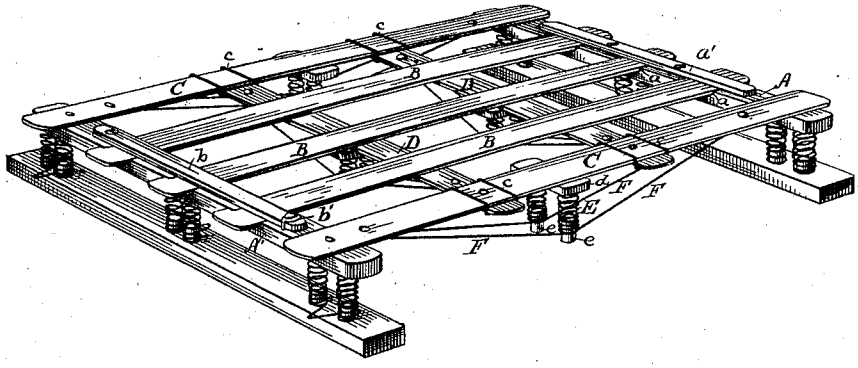


Fig. 2.

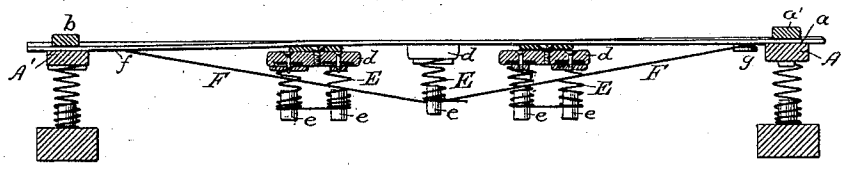


Fig. 3

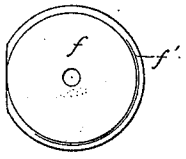


Fig. 4.

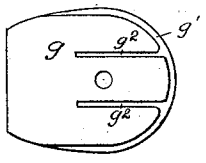
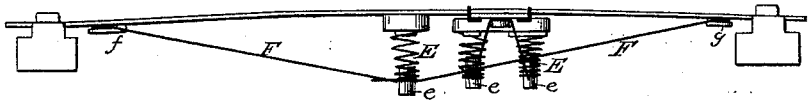


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES EADE, OF HONESDALE, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND H. J. TARBLE, OF SAME PLACE.

IMPROVEMENT IN SPRING BED-BOTTOMS.

Specification forming part of Letters Patent No. **210,508**, dated December 3, 1878; application filed September 19, 1878.

To all whom it may concern:

Be it known that I, CHARLES EADE, of Honesdale, in the county of Wayne and State of Pennsylvania, have invented new and useful Improvements in Spring Bed-Bottoms; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object I have in view is to produce a spring bed-bottom which will retain its curved form and not become depressed at its center by use; will yield easily but gradually under pressure, without any sudden check or stop to the movement; can be readily and conveniently taken apart, either for cleaning or moving, and packed closely for transportation, and at the same time will be light and strong, and cheap to manufacture; and my invention therein consists in the combination of longitudinal and transverse trussed slats, to give a curved or raised form to the center of the bed-bottom, and to retain it in that shape; second, in the peculiar manner of trussing the slats, and the construction of the plates for securing the trussing-wire to the under side of the slats; third, in the peculiar means for removably securing the slats; and, further, in combination of the principal parts of my bed-bottom, as fully hereinafter explained.

In the drawings, Figure 1 is a perspective view of the bed-bottom; Fig. 2, a central longitudinal section of the same; Figs. 3 and 4, views of the upper faces of the plates for holding the trussing-wire to the slats; and Fig. 5, a side elevation of a modified form of my bed, without supporting-springs at the head and foot.

Like letters denote corresponding parts.

At the head and foot of the bed-bottom are rigid end bars or cross-pieces A A′. The head cross-piece A has slots *a*, which receive the ends of the longitudinal slats B, and a strip, *a′*, is secured to the cross-piece, covering all these slots except those, if any, which are made for the two outside slats, retaining the ends of the slats in the slots, but allowing them to be moved endwise.

The cross-piece A′, at the foot, has similar slots; but the covering-strip *b*, instead of being fastened to the cross-piece, like the strip *a′*, is pivoted thereto at one end, and secured at the other by a spring-wire clamp, *b′*, and removable pin. The slots in the foot cross-piece A′ are narrower than those in the head cross-piece A, and the slats are slotted on one side near their ends, to fit these narrower slots.

By these means the slats are removably secured to the cross-pieces, so that they can be quickly taken out for cleaning or moving, and easily replaced. The bed can also be made of shorter length by moving the head cross-piece toward the other, and cutting off the ends of the slats till the desired length is obtained.

The two outside slats, C, are spring-trussed, and so are the cross-slats D. The trussed cross-slats are preferably two in number, and are placed at equal distances on opposite sides of the longitudinal center of the bed-bottom, or nearer the head, if desired, and are secured at their ends to the longitudinal trussed slats by wire clamps *c*. (Shown in a previously-patented bed-bottom of my invention—Patent No. 197,621.)

The longitudinal and cross slats C D are trussed into a slightly-arched form, and give the bed-bottom a curved shape; and by the use of these two sets of trussed slats the bed-bottom always retains its centrally-raised form, and never becomes depressed or sunken at the center, as is the case when no trussed slats or only longitudinal trussed slats are employed.

Each trussed slat, C or D, has at its center, secured to its under side, a short cross-piece or cap, *d*, recessed to receive the large ends of double-coiled spiral springs E, the coils of which are close wound at the small ends, and connected together and secured to the caps by buttons, as shown in Patent No. 197,621.

Two small wood blocks, *e*, are placed in the ends of the coils to each spring, and through holes in these blocks is passed a wire, F, which runs parallel to the sides of the slat, and is secured to the bottom of the slat near its ends by metal plates *f g*.

The plate *f*, Fig. 3, is made of a general circular form, and has a central hole, through which a screw or rivet is passed for securing the plate to the slat, and a flange, *f′*, around its lower edge, above which, and between the

same and the slat, the doubled portion of the wire is placed.

The plate *g*, Fig. 4, is secured by a central hole near the other end of the slat, has one side rounded, and has a flange, g^1, over which the wire is passed, and grooves g^2, into which the ends of the wire are bent.

Both plates *f* and *g*, only coming in contact with the wire at one end and partly on their sides, can have the other end formed square or round.

The wire F is stretched and the slat given an arched form before securing the plate *g* in position, which, when fastened to the slat, firmly holds the wire.

The head and foot cross-pieces A A′ are supported by intervening springs upon cross-pieces below, which rest on the side rails of the bedstead, and this is the preferred form for the heavier and more expensive bed-bottoms; but for cheap and light bed-bottoms I use no other spring than that given by the slats, and the cross-pieces A A′, which are made somewhat stronger than in the other bed-bottom, rest directly upon the side rails, Fig. 5; but otherwise this bed-bottom will be provided with all the novel features described.

In the bed-bottom shown in Fig. 5, only one trussed cross-slat is used, for lightness and cheapness; but the number can be changed, as may be found necessary in the manufacture of the different grades of bed-bottoms, without departing from the spirit of my invention.

What I claim as my invention is—

1. In a spring bed-bottom, the combination, with the slats B and end bars, A A′, of the longitudinal and transverse slats C D, held in a curved form by spring-wires stretched along their under sides, substantially as and for the purpose set forth.

2. In a bed-bottom, the combination, with a slat and a wire for holding such slat in a curved form, of the metal plates *f g*, secured to opposite ends of such slat, the first plate being provided with a flange over which the wire is bent, and the second plate with a flange and with locking-grooves to secure the ends of the wire, substantially as described and shown.

3. In a bed-bottom, the notched slats B, setting into notches in one of the cross-pieces, and removably held by a pivoted strip, *b*, substantially as described and shown.

4. In a bed-bottom, the combination of the notched cross-pieces A A′, having fastened and pivoted strips *a′ b*, with the slats B, notched on their sides near one end, substantially as described and shown.

5. In a bed-bottom, the combination of the cross-pieces A A′, removably-secured slats B, and longitudinal and transverse spring-trussed slats C D, constructed and arranged substantially as described and shown.

This specification signed and witnessed this 25th day of July, 1878.

CHARLES EADE.

Witnesses:

AARON DEWIN,

JOHN MCINTOSH.