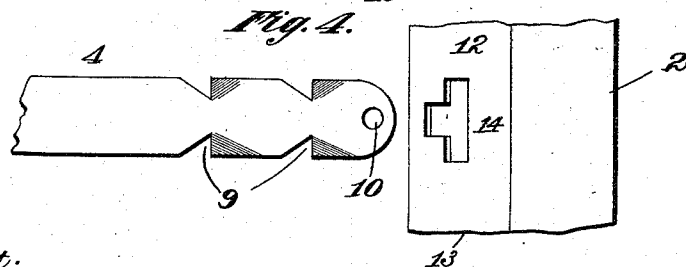
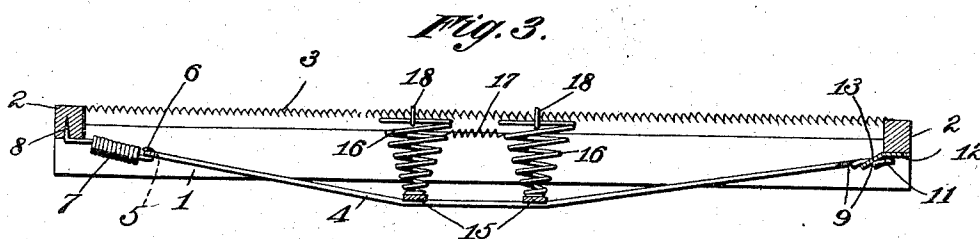
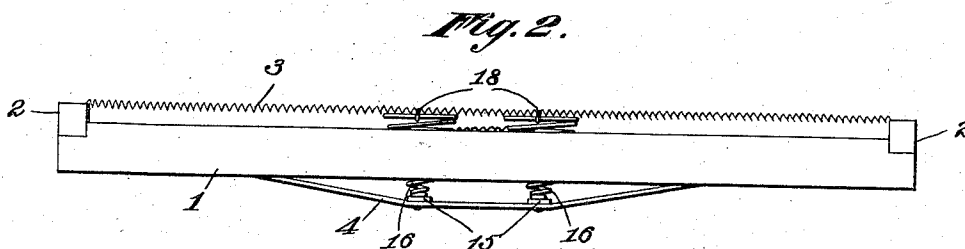
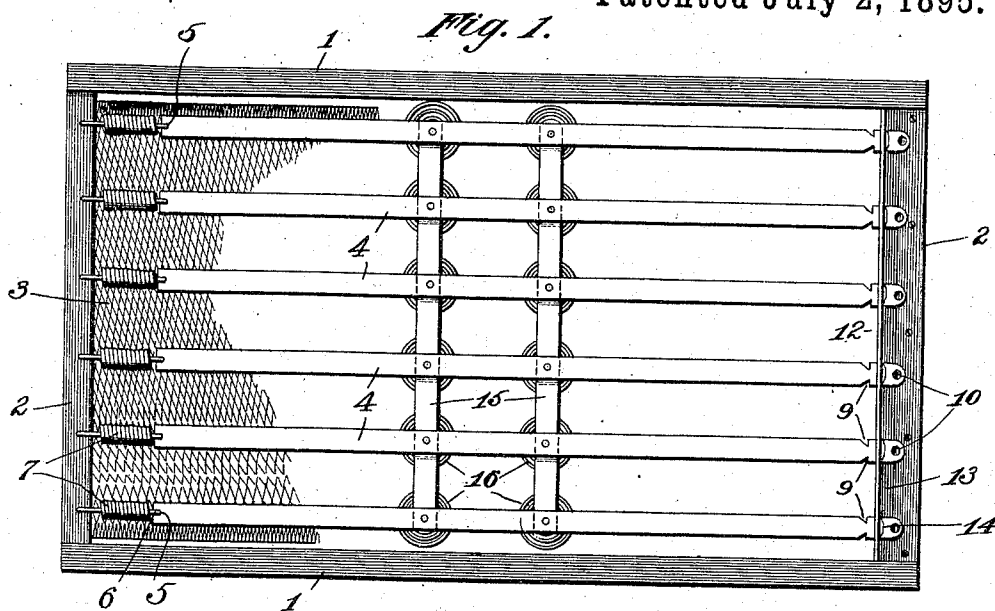


(No Model.)

H. A. BACON & W. S. DUVALL.
SPRING BED.

No. 542,008.

Patented July 2, 1895.



Attest.
Edw. J. Duvall, Jr.
W. S. Duvall.

Inventors.
Henry A. Bacon
William S. Duvall.
By W. S. Duvall, atty.

UNITED STATES PATENT OFFICE.

HENRY A. BACON AND WILLIAM S. DUVALL, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNORS TO E. B. STUMPH AND C. N. STUMPH, OF SAME PLACE.

SPRING-BED.

SPECIFICATION forming part of Letters Patent No. 542,008, dated July 2, 1895.

Application filed December 15, 1894. Serial No. 531,935. (No model.)

To all whom it may concern:

Be it known that we, HENRY A. BACON and WILLIAM S. DUVALL, citizens of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Spring-Beds; and we do hereby 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.

This invention relates to that class of bed-bottoms known as "spring-and-slat;" and the objects of the invention are to produce an improved bed-bottom of the above-mentioned character, the same being simply and cheaply constructed and the parts so arranged and combined as to lend ease and comfort to the occupant, and, furthermore, which is capable of being readily adjusted for the purpose of taking up any slack caused by a decrease of tensile strength resulting from the strain brought to bear upon the springs.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a bottom plan view of a bed-bottom embodying our invention. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal sectional view. Fig. 4 is a detail of one end of one of the longitudinal slats and the securing-plate.

Like numerals of reference indicate like parts in all the figures of the drawings.

In carrying out our invention, we employ an ordinary rectangular adjustable bed-bottom frame, the same consisting of the side bars 1 and the opposite end bars 2, the same being suitably connected at their ends, whereby they may be adjusted, or, where extreme cheapness is desirable, they may be simply rigidly connected, the manner of constructing the frame being no part of our present invention. Such adjustment, however, is preferable in order to take up any slack that may occur in the woven-wire or other flexible bottom 3.

4 designates a series of light sheet-metal slats, which are arranged under the bed-bot-

tom 3 and are located between and terminate short of the end rails 2. One of the corresponding ends of the straps or slats 4 is perforated, as indicated at 5, and in these perforations are engaged the inner hook ends 6 of a series of short helical springs 7, the opposite or outer ends of which are shaped to form driving-hooks 8, which are driven into the under side of the cross or end bar at the head of the frame. Near their opposite ends the slats 4 have their opposite side edges provided with V-shaped notches 9, which produce right-angular shoulders, and the extreme ends of the said slats are preferably perforated and slightly bent and perforated, as indicated at 10 and 11, respectively. Any number of these slats 4 may be employed, and each may be provided with any number of pairs of notches or shoulders. The shoulders may, if preferred, be provided with the bends shown for the purpose of rendering them stronger, although it is not necessary that such provision should be made.

Secured to the under side of the cross or end bar at the foot of the bed-bottom frame, is a transversely-disposed sheet-metal strip 12, nails or other means being employed for securing the same in position. The inner edge of the strip 12 projects beyond the corresponding edge of the bar to which it is attached and the projecting portion is slightly depressed throughout its length, as indicated at 13. This inclined flange 13 is provided at intervals, corresponding with the number and location of the slats 4, with T-shaped openings or slots 14, and through the same are passed the notched ends of the slats, as shown, whereby the shoulders thereof engage with the lower or contracted portions of the slots and an efficient locking of the slats and plate takes place. If at any time the helical springs should become slack by reason of a reduction of their tensile strength as a result of use, they can be readily tightened and their strength restored by simply engaging the perforation 10 of each slat in succession by an ordinary wire hook or other suitable hand-tool, raising the slat so that it may occupy the wide portion of the slot 14, subsequently drawing it toward the operator, and lowering

it so that its shoulders will engage with the opposite edges of the contracted lower portion of the T-shaped slot.

At suitable points between the end bars 2 we connect the series of longitudinal slats 4 by means of short transverse slats 15, riveting the slats together at their points of intersection. Two of these slats 15 are sufficient, although a greater number may, if desired, be employed.

Interposed between the several points of intersection of the slats 4 and 15 and the woven-wire or other bottom is a series of ordinary coiled springs 16, the lower ends of which are made secure to the slats and the upper ends of which are connected by stay-wires 17 to the bed-bottom by securing-wires 18, whereby they have merely a vertical movement. This yielding support, it will be seen, comes just at the points where the bed-bottom is subjected to the greatest strain and is therefore most liable to sag.

It will be obvious from the foregoing description, when taken in connection with the accompanying drawings, that we have produced a bed of very simple construction, and which may be very cheaply manufactured and sold; that the bottom fabric is suspended at its ends so as to lend ease and comfort to the occupant and yet is supported in a resilient manner at such points where sagging would naturally occur were it not for the presence of the supports mentioned, and, finally, it will be seen that we have provided a cheap and simple means of adjustment of the longitudinal slats, and by such adjustment the entire bed-bottom or any portion thereof may be raised when occasion requires.

Having described our invention, what we claim is—

1. The combination with the rectangular bed-frame, its bottom arranged thereover, the transverse strip secured to the end-bar at one end of the frame and having its inner edge depressed to form a flange and provided with a series of T-shaped slots or openings, of a series of longitudinal slats connected at one end to the opposite end-bar of the frame, and at their opposite ends provided with opposite

notched or shouldered edges adapted to engage with the T-shaped slots, and springs interposed between the slats and bottom, substantially as specified.

2. The combination with the rectangular bed frame and its bottom arranged thereover, of the transverse metal strap, secured to one of the end bars of the bed frame, and having a depending edge, provided with openings, each of which has a reduced portion and a series of longitudinal slats adapted to pass through the openings and to take into and removably engage with the edges of the reduced portions of said openings, substantially as specified.

3. The combination with the rectangular bed-frame, the bed-bottom thereon, the flanged strip having T-shaped openings, of the longitudinal slats having one of their corresponding ends perforated, depressed, tapered, and provided at their opposite edges with a plurality of pairs of V-shaped notches forming shoulders for engaging the T-shaped slots, the helical springs connected to the opposite ends of the slats and to the end-bar of the frame, the intermediate transverse slats connecting the longitudinal slats, and the coiled-springs interposed between the slats and the bed-bottom, substantially as specified.

4. The combination with the rectangular bed-frame, its bottom arranged thereon, and the depressed metal strip secured to the under side of one of the end-bars and provided with T-shaped slots, of the series of longitudinal slats connected yieldingly at one of their ends to one of the end-bars and at their opposite ends at their side edges provided with a plurality of pairs of V-shaped notches adapted to engage removably with the T-shaped slots, and springs interposed between the slats and the bed-bottom, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

HENRY A. BACON.
WILLIAM S. DUVALL.

Witnesses:

FRANK D. BLACKISTONE,
T. J. KEATING.