

No. 746,034.

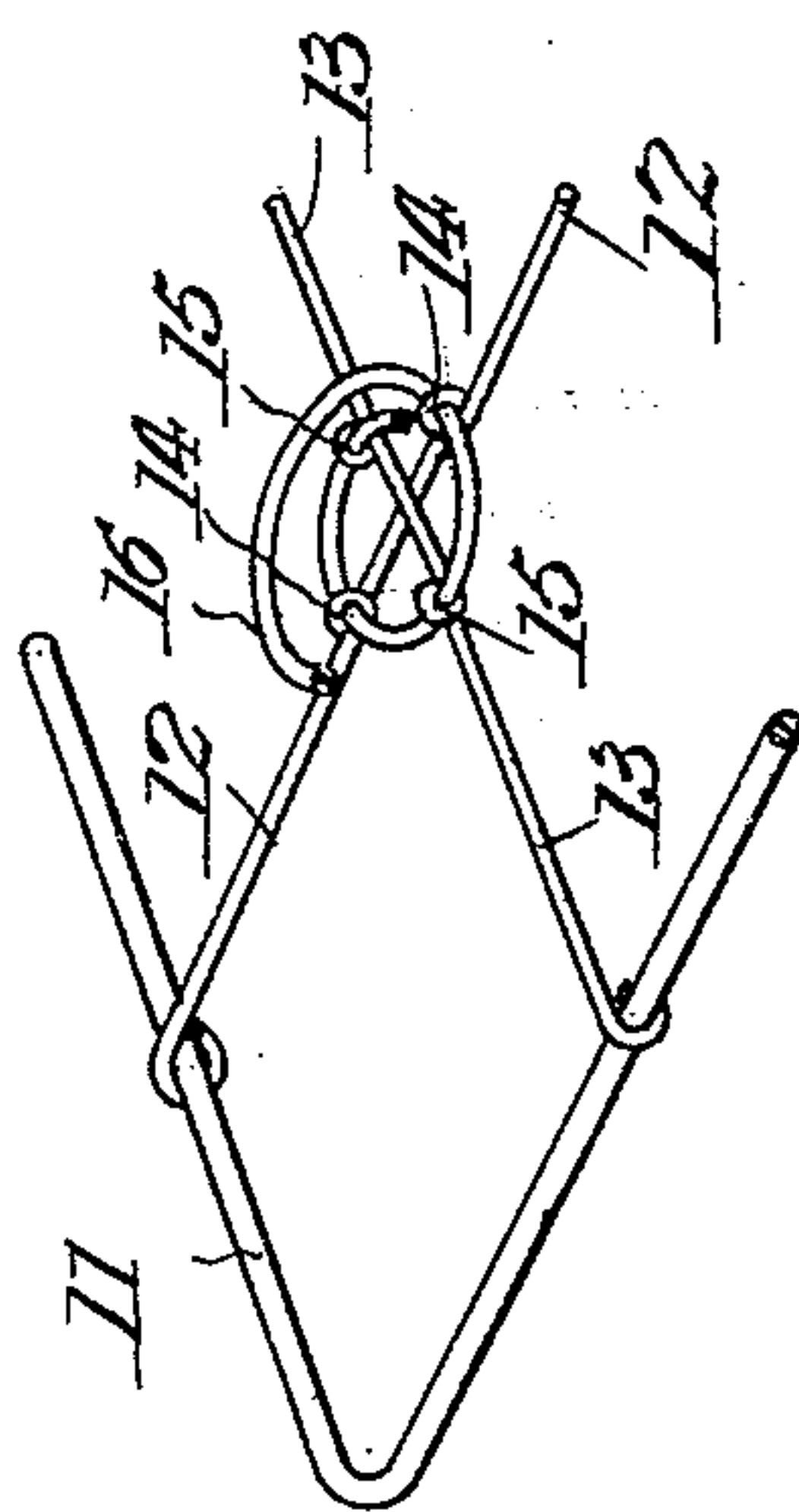
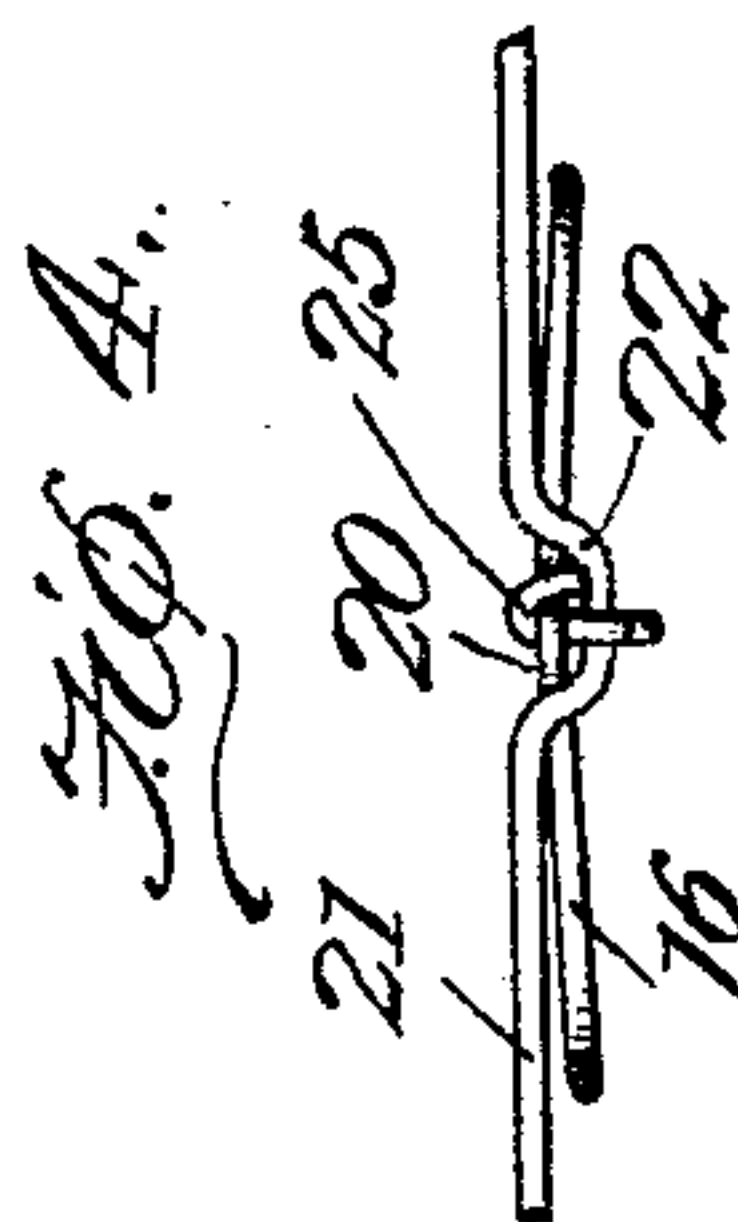
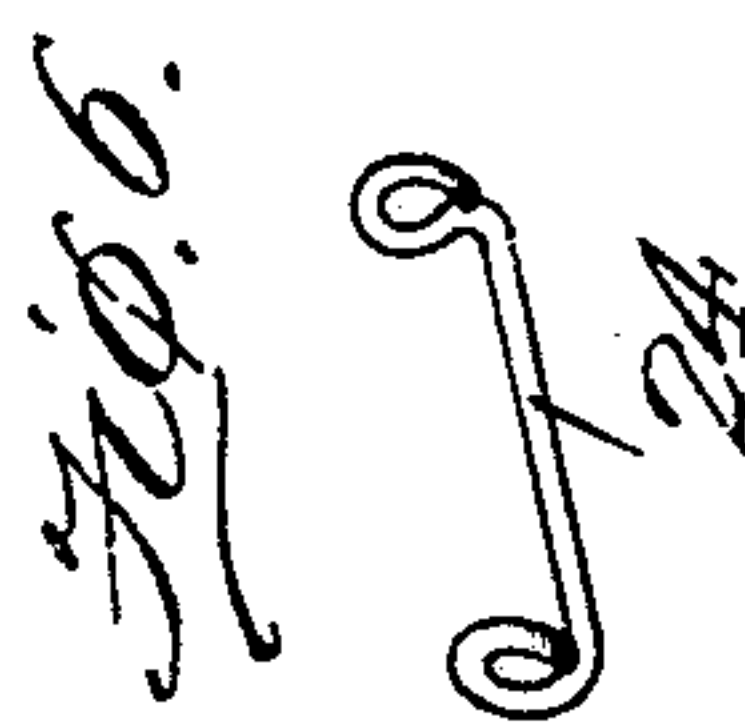
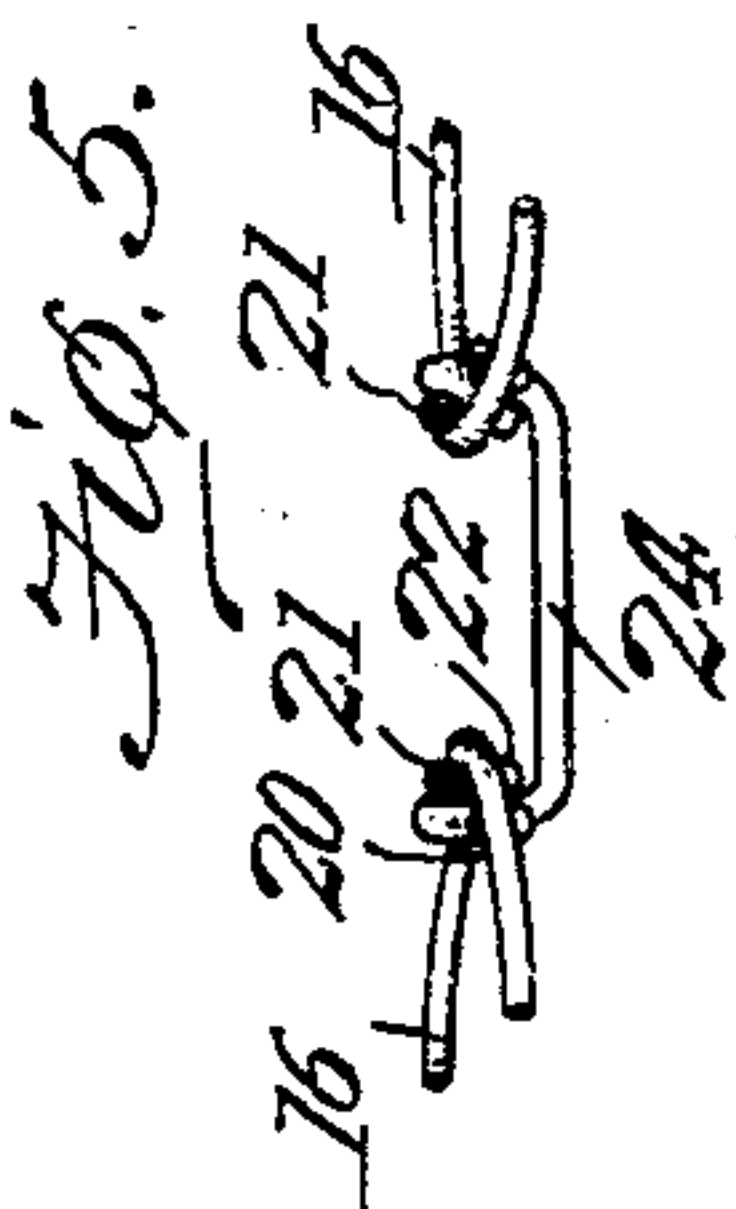
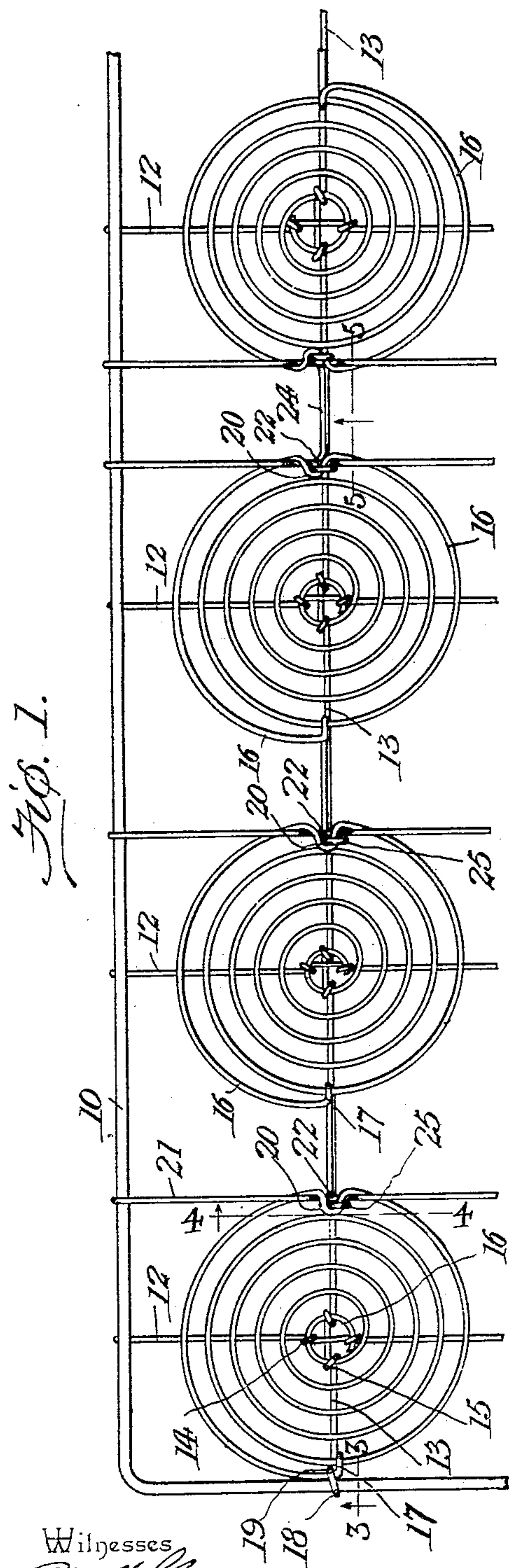
PATENTED DEC. 8, 1903.

E. A. CRAWFORD & J. F. DIXON.

SPRING BED.

APPLICATION FILED APR. 25, 1903.

NO MODEL.



Witnesses

E. A. Crawford
C. H. Woodward

by

E. A. Crawford and
J. F. Dixon Inventors
C. A. Snow & Co. Attorneys

UNITED STATES PATENT OFFICE.

EPHRAIM A. CRAWFORD AND JONAS F. DIXON, OF CARTHAGE, MISSOURI.

SPRING-BED.

SPECIFICATION forming part of Letters Patent No. 746,034, dated December 8, 1903.

Application filed April 25, 1903. Serial No. 154,333. (No model.)

To all whom it may concern:

Be it known that we, EPHRAIM A. CRAWFORD and JONAS F. DIXON, citizens of the United States, residing at Carthage, in the county of Jasper and State of Missouri, have invented a new and useful Spring-Bed, of which the following is a specification.

This invention relates to spring-beds constructed wholly of metal, and has for its object to simplify and improve devices of this character, cheapen the construction, and increase the efficiency, and produce a bed-bottom wherein the springs are rigidly held from lateral movement and any tendency to shift their position relative to the supporting-frame effectually resisted; and the invention consists in certain novel features of construction, as hereinafter shown and described, and specified in the claim.

In the drawings illustrative of the invention, in which corresponding parts are denoted by like designating characters, Figure 1 is a top plan view of a portion of the improved bed. Fig. 2 is a perspective view taken from below of a portion of the frame and one of the springs, illustrating the manner of connecting the bottom of the springs to the frame. Figs. 3, 4, and 5 are enlarged details illustrating the couplings between the different springs and between the springs and frame. Fig. 6 is a perspective view of one of the central coupling-links detached.

The improved bed structure consists of an upper border-frame 10 and a lower duplicate border-frame 11, the sides of the lower frame connected by a plurality of spaced stay-wires 12 and the end members of the lower border-frame connected by a plurality of similar spaced stay-wires 13, the two sets of stay-wires intersecting at right angles, as shown in Figs. 1 and 2. The intersecting stay-wires 12 13 are formed with loops or eyes 14 15, spaced at equal distances from the intersecting points of the stays, and the lower smaller coils of the springs (represented at 16) are passed consecutively through each set of these loops, as shown, by which means the lower ends of the springs are supported. The upper terminals of the springs next to the end members of the upper border-frame 10 are bent around the adjacent portions of the second coil of each spring, as shown at 17,

and thence carried around the adjacent portion of the border member 10, as at 18, and back again around the outer coil of the spring adjacent to the bend 17, as shown at 19, and "clenched" in this position. By this simple means a very firm and rigid "lock" is produced between the springs and the end members of the upper border-frame.

Opposite the points 17 the upper coil of each spring is formed with an inwardly-extending offset 20, and the side members of the upper border-frame are connected by spaced stay-wires 21, each of these transverse stay-wires being formed with spaced offsets 22, corresponding to and adapted for inter-engagement with the offsets 20 of the springs, as shown.

The upper terminals of the intermediate springs are bent around the adjacent portion of the second coil of each spring in the same manner as in the end springs and, as shown at 17, with the free ends extended to the adjacent spring and passing upward between the offsets 20 22 and then bent downward around them, as at 25, forming thereby a complete and efficient looking means to hold the springs and stay-wires firmly united. By this simple means a very firm and efficient lock is formed to firmly unite all the parts and effectually prevent all lateral movement between them interfering with the action of the springs.

The springs upon each half of the bed will necessarily be arranged left and right, and at the center the offsets 20 will come opposite each other, necessitating at this point coupling-wires 24 to complete the lock between the springs in place of the terminal extensions of the upper coils, as shown in Figs. 1 and 5. By this simple means a very compact and resilient bed-bottom is produced, which, while retaining all the advantages of the more complicated devices of the same character, can be constructed at a greatly-reduced expense and with a material reduction in the amount of wire required.

A bed-bottom thus constructed will not sag under the weight of the occupants and will be found very durable and comfortable. In event of the breakage of one or more of the springs the broken spring can be easily replaced at small expense and without the necessity for taking the frames apart or dis-

turbing the remaining springs. This is a very important feature of the invention and adds materially to its value, as the "life" of the bed may thus be prolonged indefinitely.

5 The bed thus constructed may be of any desired size to fit any size of bedstead and may be of any strength or quality of material.

Having thus described the invention, what we claim is—

10 In a spring structure, a plurality of coiled springs, each having a horizontally-extended bend in its upper outer whirl, a plurality of stay-wires having spaced vertically-disposed bends over which the bends of the springs

project the terminals of the outer whirls ex- 15
tending to the adjacent springs and inter-
locked with the engaged bends to hold the
springs and stay-wires in locked engagement
and thereby prevent any axial movement of
the springs. 20

In testimony that we claim the foregoing
as our own we have hereto affixed our signa-
tures in the presence of two witnesses.

EPHRAIM A. CRAWFORD.

JONAS F. DIXON.

Witnesses:

N. E. RIDGWAY,

T. J. RIDGWAY.