H. D. SWEINHAGEN.

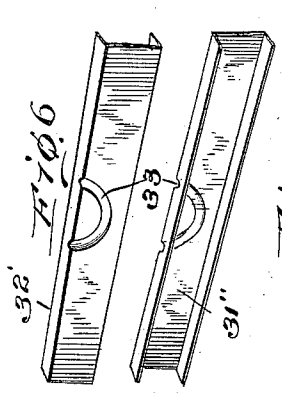
SPRING BED.

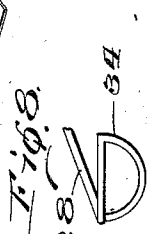
APPLICATION FILED APR. 20, 1912.

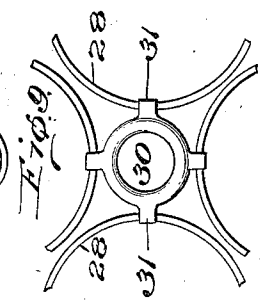
1,045,086.

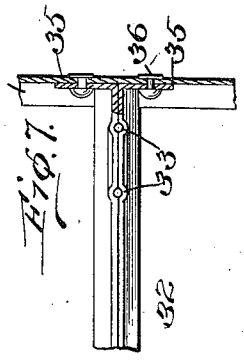
Patented Nov. 19, 1912.

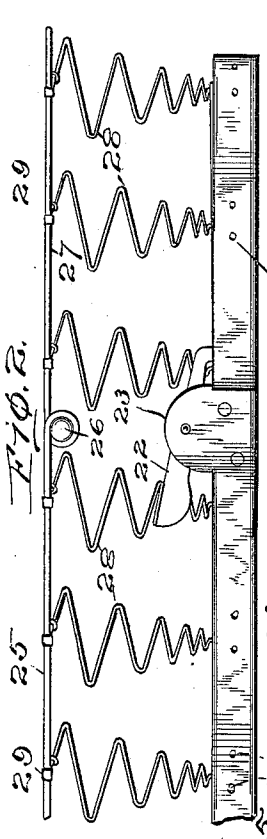
2 SHEETS—SHEET 1.

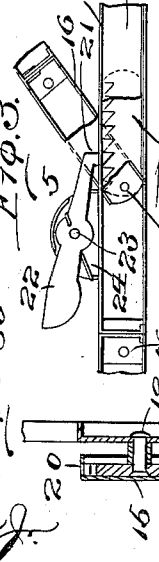


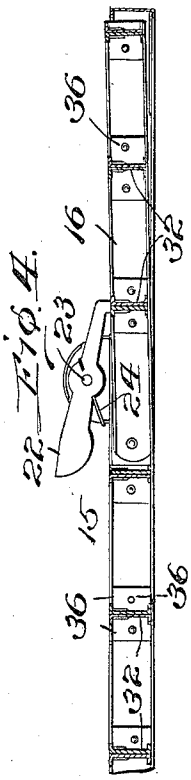












Witnesses

J. M. Fowler Jr.

L. Monsell

Inventor

Herman D. Sweinhagen,

By Mason Fenwick & Lawrence,

Attorneys

H. D. SWEINHAGEN.

SPRING BED.

APPLICATION FILED APR. 20, 1912.

1,045,086. Patented Nov. 19, 1912.

2 SHEETS—SHEET 2.

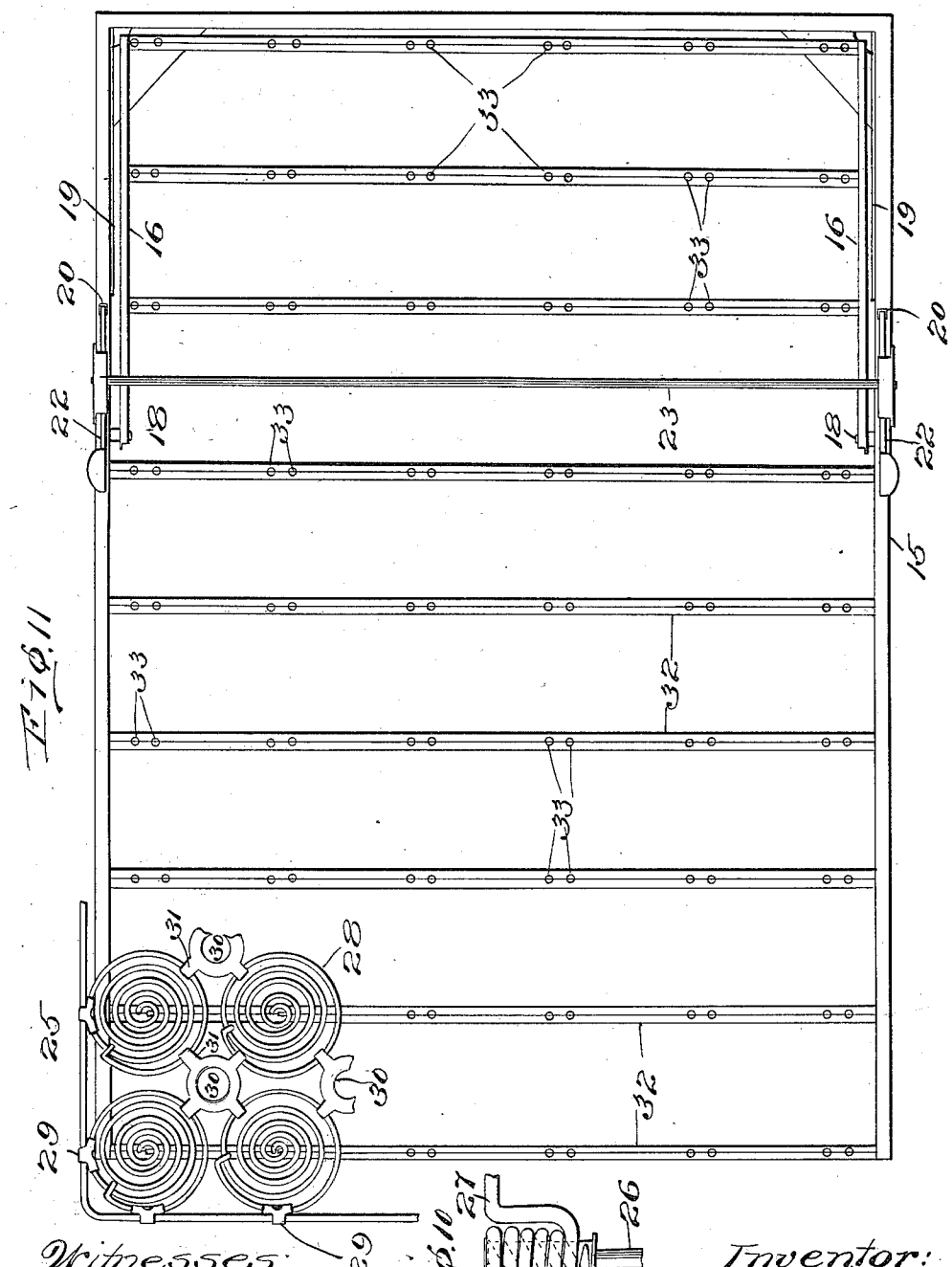


Fig. 11

Fig. 10

Witnesses:

J. M. Fowler Jr.

L. B. Morrill

Inventor:

Herman D. Sweinhagen.

By Mason Fenwick & Lawrence,

Attorneys

UNITED STATES PATENT OFFICE.

HERMAN D. SWEINHAGEN, OF NAPOLEON, OHIO.

SPRING-BED.

1,045,086. Specification of Letters Patent. Patented Nov. 19, 1912.

Application filed April 20, 1912. Serial No. 692,099.

To all whom it may concern:

Be it known that I, HERMAN D. SWEINHAGEN, a citizen of the United States, residing at Napoleon, in the county of Henry and State of Ohio, have invented certain new and useful Improvements in Spring-Beds; and I 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 spring beds and has for an object to provide an improved bed frame structure with improved means for adjusting a head section to various inclinations.

A further object of the invention is to provide a spring structure having a border wire extending along the sides with a hinge dividing the top structure into a body portion and a head portion, with means for raising the head portion to inclined position, sustained in such position in part by the hinge.

A further object of the invention is to provide a bed frame structure having its outer frame composed of channel material with a member sliding in the channel and engaged by a pawl, such parts serving to hold a tiltable member in an inclined position as a head rest.

A further object of the invention is to provide improved means for retaining the coil springs in connection with the frame structure.

A further object of the invention is to provide improved means for connecting the tops of the coil springs together.

With these and other objects in view the invention comprises certain novel constructions, combinations and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawings:—Figure 1 is a view in side elevation of a fragment of the improved bed structure showing the head section tilted at an incline. Fig. 2 is a view in side elevation of a fragment of the bed structure showing the head section lowered in plane with the body section. Fig. 3 is a detail view in side elevation of the lock. Fig. 4 is a detail view in longitudinal section including the lock in side elevation. Fig. 5 is a transverse sectional view on line 5—5 of Fig. 3 with a detent omitted. Fig. 6 is a perspective view of a section of the combination cross bars, such section being separated to show the construction. Fig. 7 is a top plan view of one of the combination cross bars showing a section of a side bar and the manner of attaching. Fig. 8 is a fragmentary view of the smaller end of one of the springs showing the portion clamped between the combination cross bars. Fig. 9 is a top plan view of one of the connecting members. Fig. 10 is a top plan view of the hinge joining the top frame. Fig. 11 is a top plan view of the framing with a half of the springs and a section of the top framing in position.

Like characters of reference indicate corresponding parts throughout the several views.

The improved bed structure which forms the subject matter of this application comprises side bars 15 of channel construction with the flanges turned inwardly and connected at intervals by cross bars to be hereinafter more fully described. Within the side frame 15 at one end a head section is employed comprising channel side pieces 16 connected by cross bars similar to the main body portion. The side pieces 16 are at one end pivotally connected with racks 17 sliding in the side channels 15, such connection being accomplished by the pivot 18. The rack 17 is maintained in position within the channel of the side pieces 15 by means of a strip 19 which, together with the channel member 15 forms a box for the rack 17 to slide in. The side member 15 is provided with openings 20 through which the points 21 of the detents 22 pass into engagement with the rack 17. The detents 22 are rigidly connected with a rod 23 which extends entirely across the bed structure and serves to operate both of such detents simultaneously when one is operated, such detents being held yieldingly to seat by springs 24.

It will be apparent therefore that as the head section comprising the side bars 16 is raised to inclined position as shown in Fig. 1, the rack 17 will slide along within the box formed in the side pieces 15 and will be retained in such adjusted position by the points 21 of the detents. To hold the head section in such inclined position a top framing 25 is employed being continuous and extending from a point substantially over the rod 23 along one side of the bed to the foot, across the foot, and extending back along the other side of the bed to a point opposite

the starting point. At the point over said rod 23 hinges 26 connect the section of the top framing 27 which forms the top framing of the head section with the section 25. The top framing comprising the sections 25 and 27 are supported upon the tops of coil springs 28 which springs are secured to the side framing by means of clips 29. The tops of the springs are maintained in proper spaced relation by other clips 30 formed as a ring as shown particularly in Figs. 9 and 11 with tongues 31 proportioned to be bent over the top whirl of the several adjacent springs.

To support the springs, combination cross bars 32 are provided said cross bars comprising individual channel sections 32′ and 32″ as shown in Fig. 6. These channel sections are provided with segmental grooves 33 which when the members are together to form the completed cross bar as shown in Figs. 7 and 11, comprise curved sockets to receive the curved lower extremity 34 of the springs which are clamped therein. The ends of the combination cross bars 32 are secured to the side framing 15 by having the ends of the webs turned outwardly as shown at 35 in Fig. 7, and secured as by rivets 36.

By this construction a bed bottom made entirely of metal is provided having the springs clamped securely between the component parts of the combination cross pieces whereby said springs are not removable except by removing one of the component parts of said combination cross pieces. The construction of the parts as shown permits the head section to be raised, the top being held against movement by the hinge at the ends of the rods 26 while the bottom framing is held in adjusted position by the detent 22. The connection of the head section by means of the hinge forming a part of the top framing produces a flexible movement so that weight applied to the head section in an elevated position will produce some yielding of the latter, but not enough to force it down upon the frame 15.

I claim:

1. In a bed bottom, a frame, a head section, a sliding member connecting the frame and the head section, a detent engaging the sliding member, springs carried by the frame and head section, a top framing carried by the springs and a hinge carried by the top framing substantially vertically above the detent.

2. In a bed bottom, a frame comprising channel material, a rack slidable in the channel, a head section within the frame and pivotally connected with the rack, a detent carried by the framing and in position to engage the rack, springs carried by the frame and by the head section, a top framing carried by the springs, and a hinge in the top framing substantially above the detent.

3. In a bed bottom, a framing comprising channel material having an opening through the top flange, a rack member slidable within the channel, a detent carried by the framing having its point extending through the opening into engagement with the rack, a head section pivotally connected with the rack, springs carried by the frame and the head sections, a top framing carried by the springs, and a hinge introduced into the top framing above the detent.

4. In a bed bottom, an outer framing, cross bars comprising component channel members having segmental furrows formed in their adjacent sides, and springs having curved extremities clamped within the furrow between the component sections.

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

HERMAN D. SWEINHAGEN.

Witnesses:

THOMAS MULCAHY,

OLIVE MULLEN.