

No. 676,909.

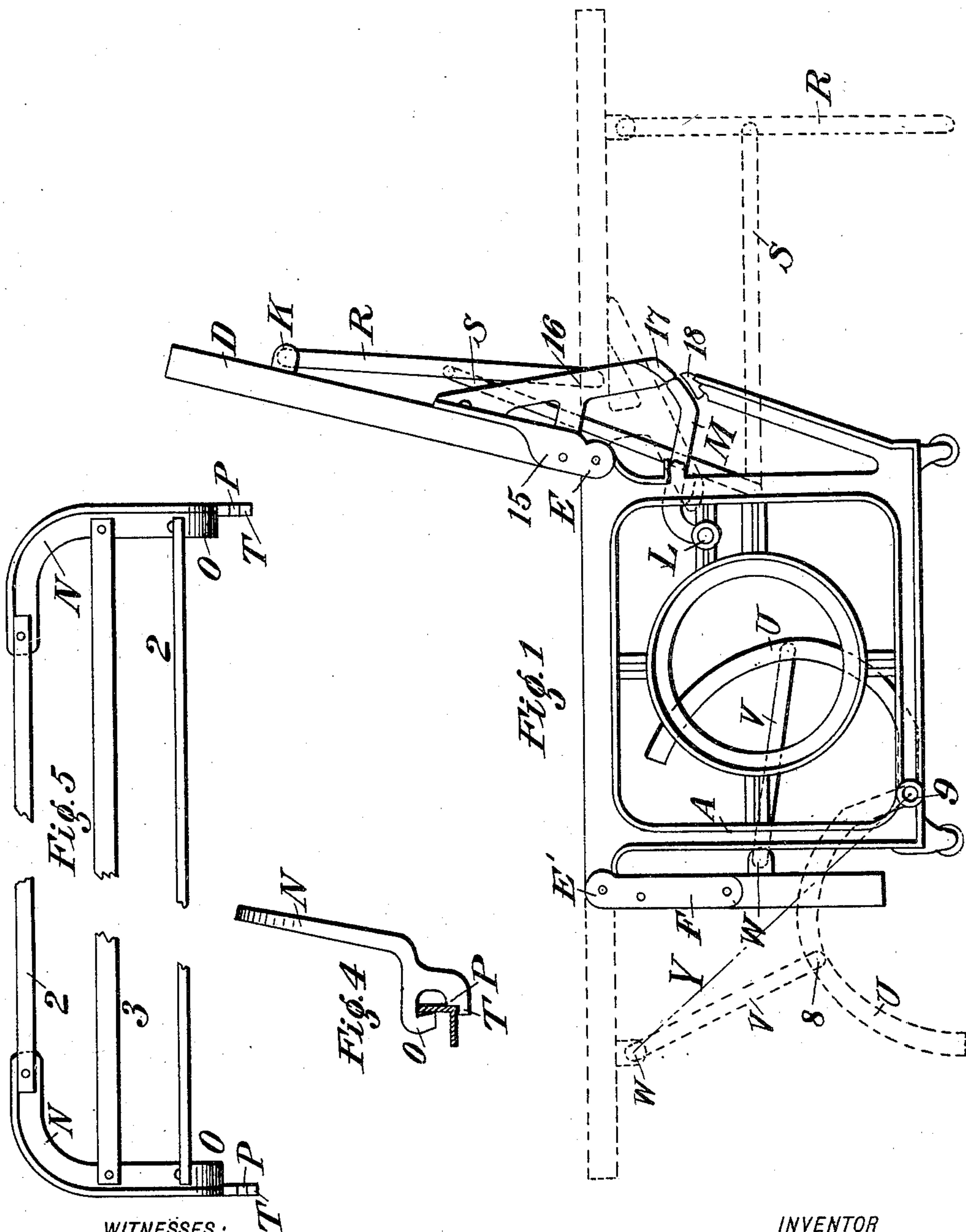
Patented June 25, 1901.

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METALLIC SOFA BED.

(Application filed Dec. 11, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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INVENTOR

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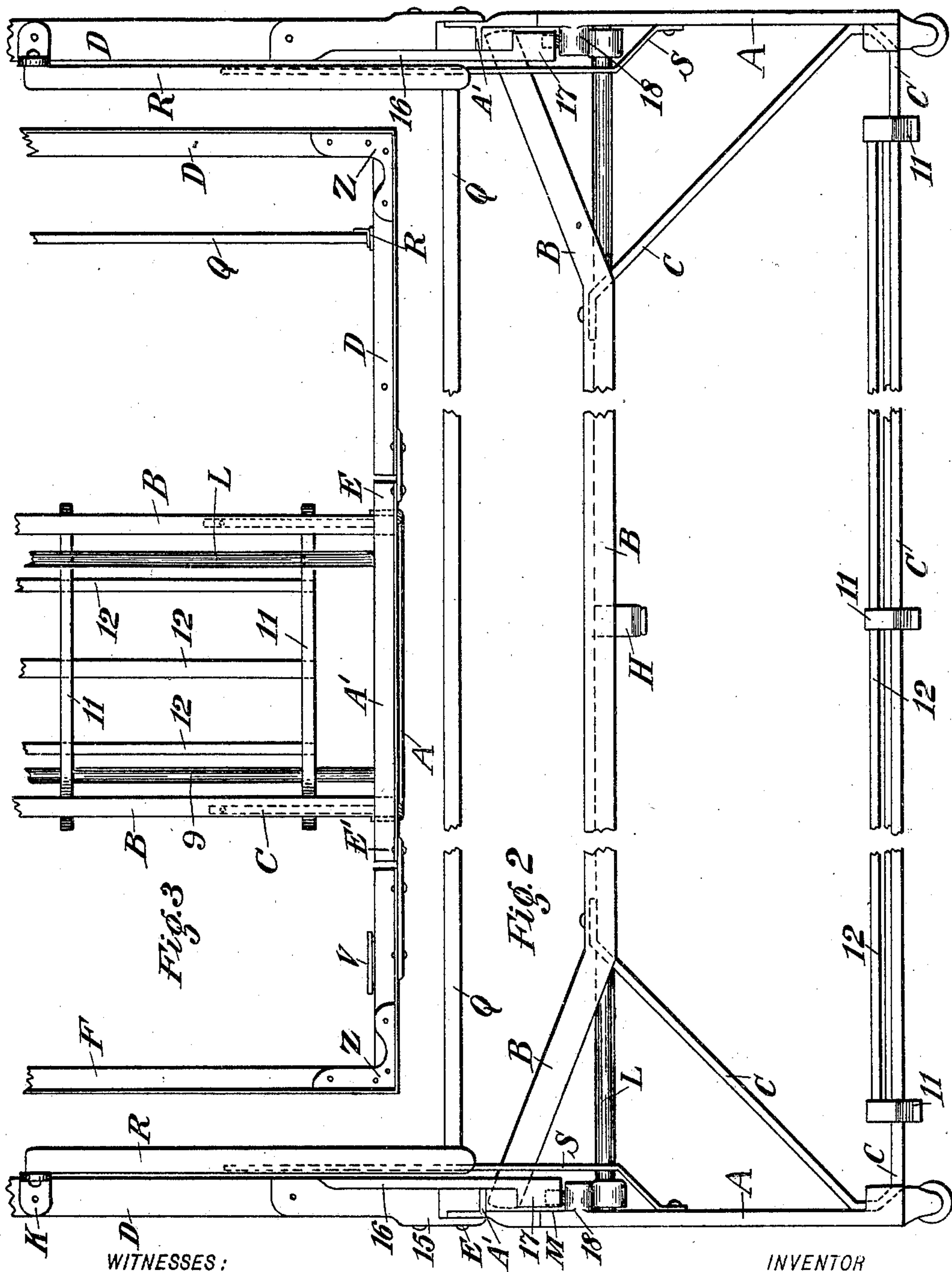
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WITNESSES:

Bert C. Jones
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INVENTOR

Levi Cross

UNITED STATES PATENT OFFICE.

LEVI ORSER, OF NEW YORK, N. Y.

METALLIC SOFA-BED.

SPECIFICATION forming part of Letters Patent No. 676,909, dated June 25, 1901.

Application filed December 11, 1899. Serial No. 740,025. (No model.)

To all whom it may concern:

Be it known that I, LEVI ORSER, a citizen of the United States, and a resident of the city, county, and State of New York, have invented
5 a new and useful Metallic Sofa-Bed, of which the following is a specification.

The object of the invention is to provide a sofa which may easily be adjusted to serve either as a couch or bed, and is especially
10 useful in all cases where it is desirable to sleep in a room which is also used for other purposes during the day.

The sofa-bed consists mainly of three parts—first, a central part forming the main body
15 or seat of the sofa, to the rear side of which is pivoted a rear wing, which is adapted to be held in an inclined position, so as to form the back of the sofa, or to be turned down into a horizontal position, so as to form part
20 of the bed, and a front wing pivoted to the front side of the body or seat, which is adapted to turn down out of the way when used as a sofa or to be raised up into a horizontal position when used as a couch or bed.

Referring to the drawings which form a part of this specification, Figure 1 is an end-elevation view of the sofa, the rear wing being in its inclined position and the front wing being turned down, the front and rear wings
30 when in their horizontal positions being shown by dotted lines. Fig. 2 is a rear-elevation view of the sofa, sections between the center and ends being omitted and the upper part of the rear wing being broken away. Fig. 3
35 is a plan view of one end of the sofa, showing the front and rear wings in their horizontal positions and showing the method of attaching the wings to the body. Fig. 4 is a side-elevation view of one of the end pieces.
40 Fig. 5 is an end-elevation view of the same, a portion of the connecting parts being omitted.

The construction of the sofa will now be explained, and as both ends are the same a description of one end will suffice.

45 The body or seat part of the sofa consists of two vertical frames A, of metal, Fig. 1, held together by two horizontal beams B and by two braces C, so formed as to extend from one frame to the other, being riveted to the
50 frames near the bottom, the ends thence extending upward and being riveted to the beams B, Fig. 2, thus forming the seat or body

part of the sofa. This construction gives the maximum strength and stability with the minimum weight. The beams B are bent, as
55 shown, to give clearway for the spring-mattress. The upper sides of the frames A are molded like the angle-iron of which the wings are made, as shown at A', Fig. 2, so that with the front and rear wings in their horizontal
60 positions they form a rectangular frame F A' D, to which the spring-mattress is attached. (See Fig. 3.) By this construction the spring-mattress is held as perfectly as if mounted in a frame and held in a bedstead.
65

The front wing F, Fig. 1, consists of a bar of angle-iron extending the length of the sofa, being bent at right angles Z, Fig. 3, and its ends pivoted to shoulders E' of the frames A. The rear wing D is made the same, its ends
70 being pivoted to shoulders E of the frames A. (See Figs. 1, 2, and 3.)

Operation of the rear wing.—Pivoted in the rear portion of the frames A, Fig. 1, is a rod L, carrying clicks M, their rear ends resting upon lugs 18, formed on the inside of the
75 rearward-projecting portion of the frames A, a small portion of this part of the frames A being broken away, as shown. Riveted to the ends of the rear wing D are hasps 15, by
80 which the wing D is pivoted to the shoulders E of the frames A. Projecting downward from the hasps 15 are arms 16, carrying outward-projecting lugs 17. (See Figs. 1 and 2.) To let the wing D down, it is necessary to raise
85 the clicks M, when the lugs 17 will pass under them, thus permitting the wing D to be lowered to its horizontal position, as shown by dotted lines. (See Fig. 1.) For convenience in raising the clicks M a handle H is located
90 at the center of the rod L. (See Fig. 2.) When the wing D is raised, the lugs 17 operate to raise the clicks M until by the upward movement of the wing the lugs 17 pass clear
95 of the clicks M, when they drop back onto the lugs 18. The wing being now released swings back until the lugs 17 butt against the ends of the clicks M, thus locking the wing in its inclined position, as shown in Fig. 1. Legs R, pivoted to the shoulders K, serve to
100 support the wing D when in its horizontal position. (See dotted lines, Fig. 1.) Braces S, pivoted to the legs R, their forward ends pivoted to the frames A, serve to hold the

legs R firmly in their vertical position and also serve to automatically move the legs R up out of the way, as shown, when the wing D is raised. A longitudinal bar Q connects the legs R together. (See Fig. 2.) An important advantage of this construction is that the locking mechanism cannot act at one end of the sofa without acting at both, while the rod L lies below the beams B, thus avoiding a "backbone" or other disagreeable obstruction under the mattress.

Operation of the front wing.—Pivoted in the front side of the frames A is a rod 9, carrying legs U, which are connected to the front wing F by connecting-rods V, pivoted to shoulders W, carried by the wing F. (See Fig. 1.) The legs U are so curved that the pivots 8 where the connecting-rods V are pivoted to them are a little below the dotted lines Y, drawn from the center of the shoulders W to the center of rod 9, the effect of which is to throw the weight of the wing F upon the legs U. To let the wing F down, it is necessary to raise the wing a little, while at the same time raising the legs slightly to carry the pivots 8 over the line Y, when the wing F in swinging down will operate to swing the legs U back under the seat, as shown. When the wing F is raised, the legs U are drawn out automatically, because when the legs are moved past the dotted line Y their own weight and the weight of the wing operate to force them down to the floor, as shown by dotted lines, Fig. 1. In this construction also the action at both ends of the sofa is simultaneous. The mechanism cannot act at one end without acting at both.

The sofa is provided with two detachable end pieces to serve the purpose of head and foot boards when it is adjusted to serve as a bed, consisting of cast-metal pieces N, having hooks O, adapted to engage with the angle-iron D F, of which the wings are made. (See Fig. 4.) Rests P are adapted to support the pieces N in position, and lugs T are adapted to prevent the pieces N from being disengaged except when the top is moved inward. Two of the pieces N (right and left) are connected together by pieces of channel-iron 2 and a piece of band-iron 3, (see Fig. 5,) thus forming an end piece adapted to hook onto either end of the bed to form head or foot board and adapted to be instantly removed when not wanted.

A rack made of transverse pieces of channel-iron 11, connected together by longitudinal pieces 12, Figs. 2 and 3, resting upon the braces C, forms a bottom or floor for the space under the seat of the sofa, which thereby serves as a convenient receptacle to store parts of the bed when not wanted.

With the front wing F turned down and the rear wing D turned up (see Fig. 1) the sofa affords an easy seat.

When the front wing is raised, (see dotted lines, Fig. 1,) it affords a comfortable couch.

With the rear wing turned down it forms a wide double bed.

The sofa is made the length of a full-sized spring-mattress. With the end pieces in position it is the length of a full-sized bedstead.

I am aware that beds with a front or rear portion adapted to turn up or down have been made before. I therefore have made no claim, broadly, to this, but confine my claims to the combination of parts as herein shown and described, whereby a better result is attained.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a metallic sofa-bed, the combination of the central or body portion comprising the vertical end pieces having their upper sides formed of angle-iron, longitudinal bent beams connecting the vertical end pieces together near their upper side, and longitudinal braces connecting the vertical end pieces together near their under side, the ends of said braces extending upward and being connected to the longitudinal bent beams, and the bottom or floor comprising transverse pieces resting upon the longitudinal braces, and the longitudinal pieces connecting together the transverse pieces, all constructed in the manner and for the purpose set forth.

2. In a metallic sofa-bed: the combination with the body or seat part of the sofa-bed substantially as described, of a front wing and mechanism to operate the same, comprising: a bent angle-iron, with its ends pivoted to the front side of the body or seat part, thus forming the framework of the wing; a longitudinal rod pivoted in the vertical end frames and carrying upwardly-curved legs, connecting-rods by which the curved legs are connected to the under side of the front wing, constructed in the manner and for the purpose substantially as described.

3. In a metallic sofa-bed, the combination of the body or seat of the sofa, substantially as described, with a rear wing and its operating mechanism, comprising a bent angle-iron having its ends pivoted to the rear side of the seat part of the sofa, forming the framework of said wing, a longitudinal rod pivoted in the end frame, said rod having an operating-handle at its center and carrying two rearwardly-projecting clicks, lugs formed on the inner sides of said end frame, upon which lugs rest the rear ends of said clicks, downwardly-projecting arms carried by the rear wing, said arms having outwardly-projecting lugs on their inner ends, adapted to engage the rearwardly-projecting clicks to form a locking mechanism to lock the wings, and two legs pivoted on the under side of the wing, a longitudinal bar connecting said legs together, and pivoted braces connecting the legs to the vertical end frames, thereby forming the supporting mechanism of the wing, all constructed and arranged as and for the purpose set forth.

4. In a metallic sofa-bed: detachable end
parts to serve as head and foot boards for the
bed consisting of cast pieces; with their up-
per ends curved and the lower ends hook-
5 shaped; adapted to engage with the angle-
iron of which the wings are made, rests to hold
the pieces in position and lugs extending un-
der the angle-iron to prevent the cast pieces
from becoming disengaged by accident; and

connecting-pieces by which two of the cast 10
pieces right and left are fastened together to
form a complete end part constructed in the
manner and for the purpose substantially as
described.

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Witnesses:

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