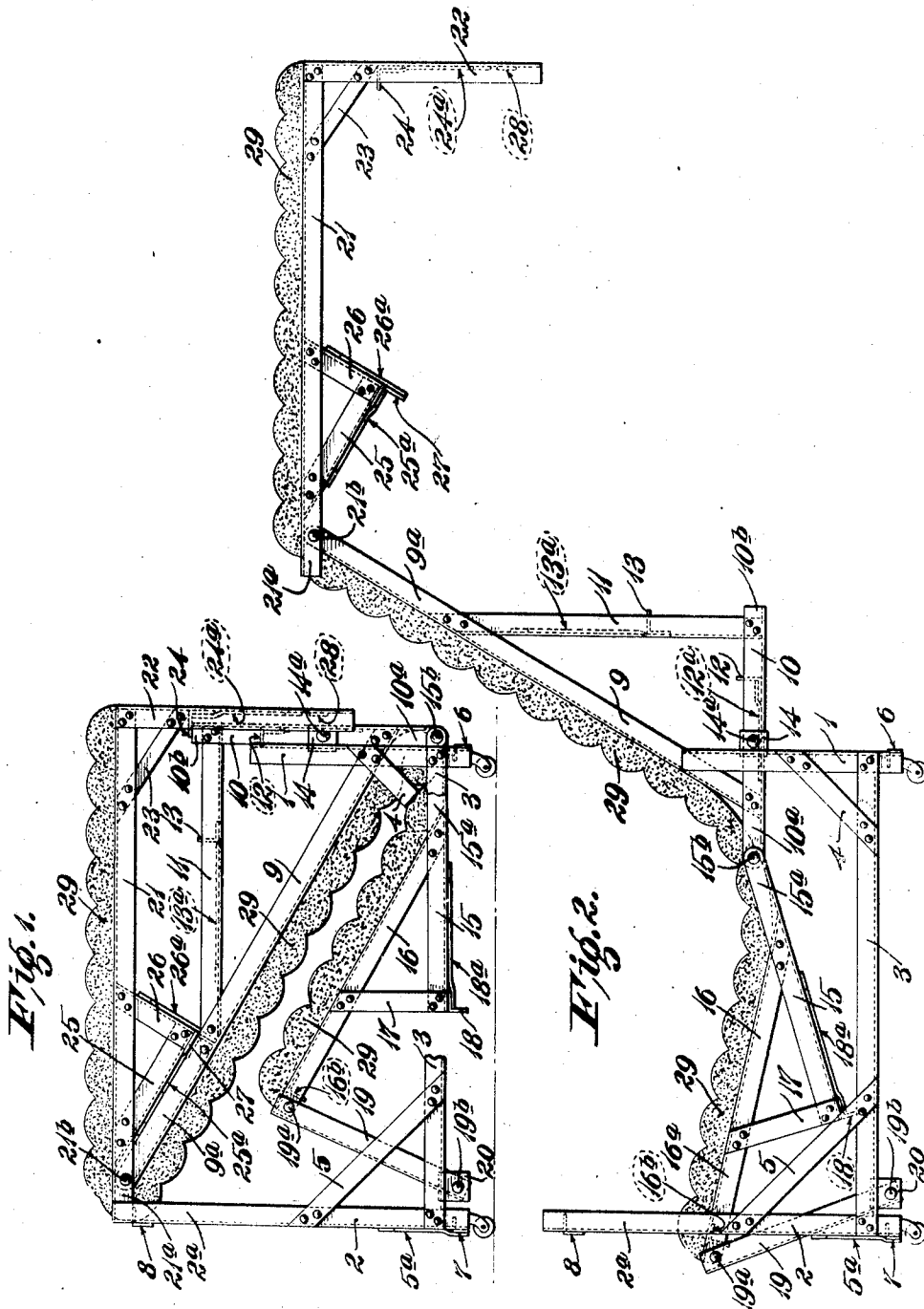


R. COOPERSMITH.
SOFA BEDSTEAD.
APPLICATION FILED JUNE 1, 1911.

1,043,071.

Patented Nov. 5, 1912.

2 SHEETS—SHEET 1.



Witnesses:

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Inventor:

Rudolph Coopersmith,
By *James D. Coopersmith*
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SOFA BEDSTEAD.

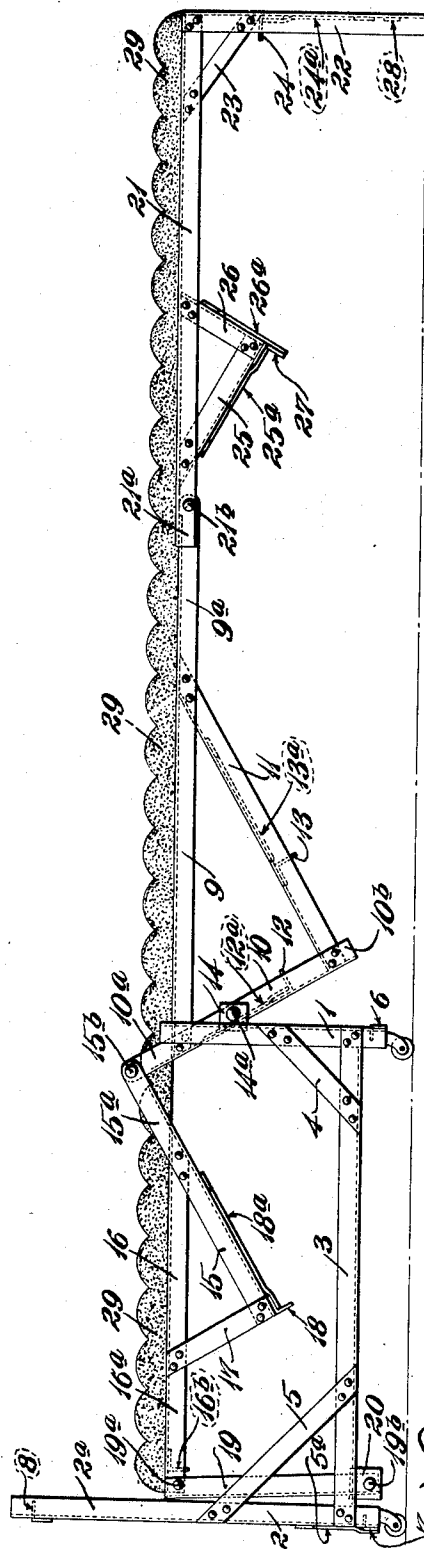
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2 SHEETS—SHEET 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

RUDOLPH COOPERSMITH, OF ST. LOUIS, MISSOURI.

SOFA-BEDSTEAD.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, RUDOLPH COOPERSMITH, a citizen of the United States, and a resident of the city of St. Louis and State of Missouri, have invented a new and useful Improvement in Sofa-Bedsteads, of which the following is a specification.

This invention relates to sofa-bedsteads and has for its principal object to produce a foldable structure which is simple and inexpensive, yet strong and durable, which may be readily opened as a full size bed and folded compactly into a small space to constitute a sofa or divan.

A further object is to produce a structure wherein the pivotal frame sections are well balanced so that the weight and leverage are equalized throughout the opening and closing movements thereof.

Other advantages hereinafter more fully appear.

The invention consists in the parts and in the arrangements and combinations of parts hereinafter described and claimed.

In the accompanying drawings which form part of this specification and wherein like symbols refer to like parts wherever they occur,—Figure 1 is a side elevation of the device folded as a sofa or divan; Fig. 2 is a side elevation showing the device partially opened; and Fig. 3 is a side elevation of the device fully opened as a bedstead.

The device comprises a supporting frame comprising vertical front and rear corner members 1 and 2, respectively. The lower portions of the members 1 and 2 are connected by horizontal end members 3; and said members 1 and 2 are respectively connected to the member 3 by diagonal braces 4 and 5. The vertical members 1 and 2 are respectively connected near their lower ends by front and rear cross members 6 and 7; and, obviously, diagonal braces or stays 5^a similar to those 4 and 5 above noted, may connect said members 2 with their cross member 7. The rear vertical corner members 2 are extended up as at 2^a and connected near their upper ends by a cross member 8. The extensions 2^a and cross members 8 serve as a head-board and also a support for the folding outer frame section (hereinafter described) when it is in closed position. Pivottally supported on the front vertical corner members 1 is a reversible frame com-

prising triangular end members 9, 10 and 11. The members 10 and 11 are respectively connected by cross members 12 and 13 and they may be suitably braced by diagonal stays 12^a and 13^a similar to those 4 and 5 above set forth. The members 10 of the reversible frame are pivoted, as at 14^a, to brackets 14 secured to the front vertical members 1. The end portions 10^a of the pivotal frame members 10 are extended some distance beyond the members 9 and are pivotally connected, as at 15^b, to extensions 15^a of end members 15 of a cooperating frame whose other end members 16 and 17 are connected to said members 15 in triangular relation. A cross member 18 connects the respective end frame members at or about the juncture of the members 15 and 17 and is also connected to the members 15 by diagonal stays 18^a.

The rear end portions 16^a of the members 16 are extended some distance beyond the point of juncture with the members 17 and are pivotally connected to the upper end portions of supporting links 19, as at 19^a. The links 19 are pivotally connected at their lower ends, as at 19^b, on brackets 20 secured on the horizontal end members 3 of the supporting frame. The members 9 of the reversible frame have their end portions 9^a extended some distance beyond the point of juncture with the members 11 and pivotally connected to extensions 21^a of end members 21 of a second cooperating folding frame, as at 21^b. The opposite end portions of the members 21 are secured to members 22 constituting supporting legs for the frame in its open position, as shown in Fig. 3. The legs 22 and frame members 21 are connected by diagonal stays 23; and said legs 22 are also connected by a cross member 24. The cross member 24 is also connected to the legs 22 by diagonal stays or braces 24^a and it is adapted to rest on the ends 10^b of the reversible frame members 10 when the frame is folded back into the position shown in Fig. 1. Members 25 and 26 are secured to the members 21 of the folding frame and to each other in triangular relation; and said members 25 and 26 are connected at their point of juncture by a cross member 27 and the respective members 25 and 26 are connected to said cross member 27 by diagonal stays or braces 25^a and 26^a. The members 25 and 26 being rigidly se-

cured to the members 21, and connected by the cross member 27 and braced by the diagonal stays 25^a and 26^a, form a rigid cross tie and truss for the outer folding frame; and the triangular end members 15, 16 and 17 of the other folding frame which coöperates with the reversible frame and are connected by the cross member 18, also serve to stiffen the structure. It is also preferable to provide a cross member 16^b which connects the end extensions 16^a of the members 16 adjacent to the pivots 19^a. The lower end portions of the legs 22 are connected by a cross tie piece 28 so as to resist the tension of the spring mattress support which is connected only to side frame members 21 of the outer folding section, and its tendency is to draw the upper end portions of the legs inwardly and force their lower portions outwardly, owing to the location of the cross member 24.

The arrangement of the triangular end members 9, 10 and 11 and cross members 12 and 13 of the reversible frame gives considerable rigidity to that structure; and it is necessarily required, for the reason that this frame is really the main supporting frame, while the two others are secondary or auxiliary frames.

The several supporting posts and frame members are preferably constructed of angle irons. This enables the structure to be made light without sacrificing rigidity.

A continuous mattress 29 is employed, and it is supported on a suitable woven wire fabric or other flexible spring mattress support, not shown, but which may be obviously secured to the horizontal flanges of the side frame members 16, 9 and 21, said members being arranged so as to open in substantially the same horizontal plane, as shown in Fig. 3. The structure also permits the frames to be folded with the mattress thereon into the position shown in Fig. 1, the portion of the mattress which is carried by the outer frame members 21 serving as the cushion for the sofa seat.

In the closed position of the device, as shown in Fig. 1, the end extensions 21^a of the members 21 rest on the cross member 8 which connects the rear uprights 2 of the stationary supporting frame, while the horizontal flange of the cross member 24 which connects the supporting legs 22 rests on the upper end portions 10^b of the reversible frame members 10.

The device may be easily opened to the position shown in Fig. 3 by merely lifting on the outer frame members and drawing the same forward; and it is closed just as easy. The inner bed section being hinged on the supporting links 19 and pivoted to the reversible frame, is brought into position; and the whole structure is counterbalanced, so that there are no sudden

changes in weight and leverage which would require the person operating the device, either in opening or closing the same, to exercise any special caution. Nor is it necessary to provide any locking means or latches to hold the device in either closed or open position, and, therefore, none are required to be released prior to effecting the opening and closing of the device.

Obviously, the device admits of considerable modification without departing from my invention. Therefore, I do not wish to be limited to the specific construction and arrangement shown.

What I claim is:

1. A sofa-bedstead comprising a base frame, a reversible intermediate frame mounted thereon, a mattress support on said intermediate frame, an outer frame pivoted to said reversible frame in coöperative relation to one side thereof, a mattress support on said outer frame constituting the sofa-seat, means for supporting said outer frame horizontally above said intermediate frame, an inner frame pivoted to said intermediate frame in coöperative relation to the side opposite to that with which said outer frame coöperates, a mattress support on said inner frame, and compensating means for supporting said inner frame on the base frame in conjunction with said intermediate frame.

2. A sofa-bedstead comprising a supporting base, a reversible intermediate frame pivotally supported at its opposite ends on said supporting base, an inner frame movably mounted on said supporting base and connected to said reversible intermediate frame in coöperative relation to one side thereof and folded thereunder in its closed position, and an outer frame connected to said reversible frame in coöperative relation to the opposite side thereof and folded horizontally and supported thereon in its closed position, said reversible intermediate frame having a mattress thereon and said inner and outer frames each having a mattress adapted to be moved in the same horizontal plane with the mattress of said reversible frame in their opened positions, the mattress on said outer frame constituting the sofa seat.

3. A sofa-bedstead comprising a base frame; a reversible intermediate frame having right triangular end members, one of said members at each end being pivoted to the base frame, the hypotenuse members being respectively extended beyond the ends of the other angle members, said pivoted angular members being respectively extended beyond the adjoining ends of said hypotenuse members; an inner frame having triangular end members, two of these members at each end being extended, the extension of one member being pivoted to

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the extension of the adjacent angular member of the intermediate frame and the extension of the other member being pivoted to a compensating supporting member on the base frame; an outer frame having end members pivoted to the extensions of the hypotenuse members of said intermediate frame, locking therewith in open position;

means for supporting said outer frame on said base frame.

Signed at St. Louis, Missouri, this 27th day of May, 1911.

RUDOLPH COOPERSMITH.

Witnesses:

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PAULINE AMBERG.