M. J. BARTLETT.

SOFA BED.

APPLICATION FILED JUNE 18, 1913.

1,074,342. **Patented Sept. 30, 1913.**

2 SHEETS—SHEET 1.

Fig. 1.

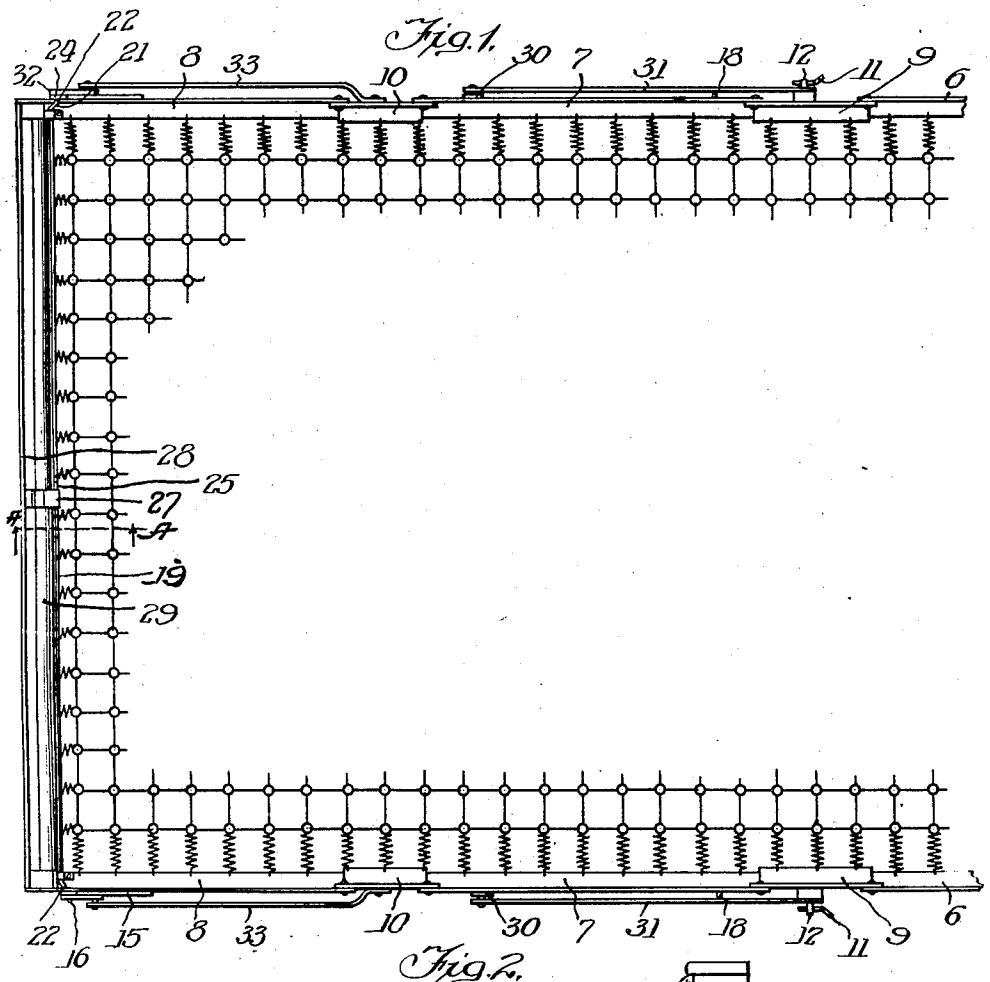
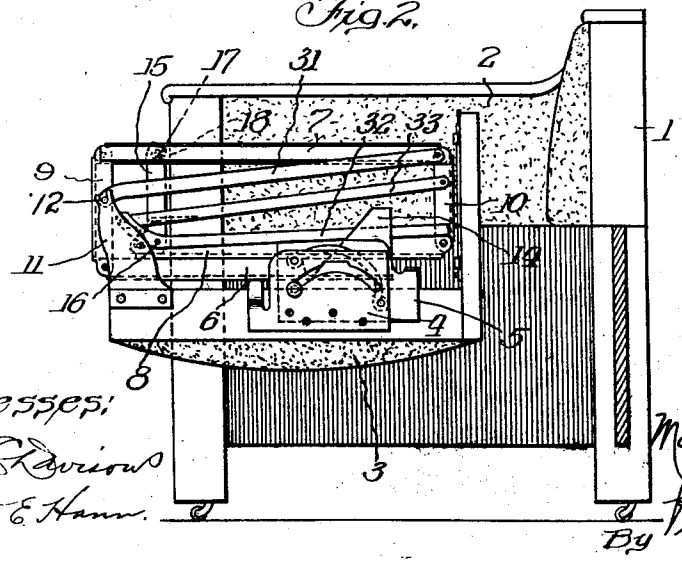


Fig. 2.



Witnesses:

E. E. Davison

William E. Hamm.

Inventor:

Marcus J. Bartlett,

By Kummer & Kummer

Attys

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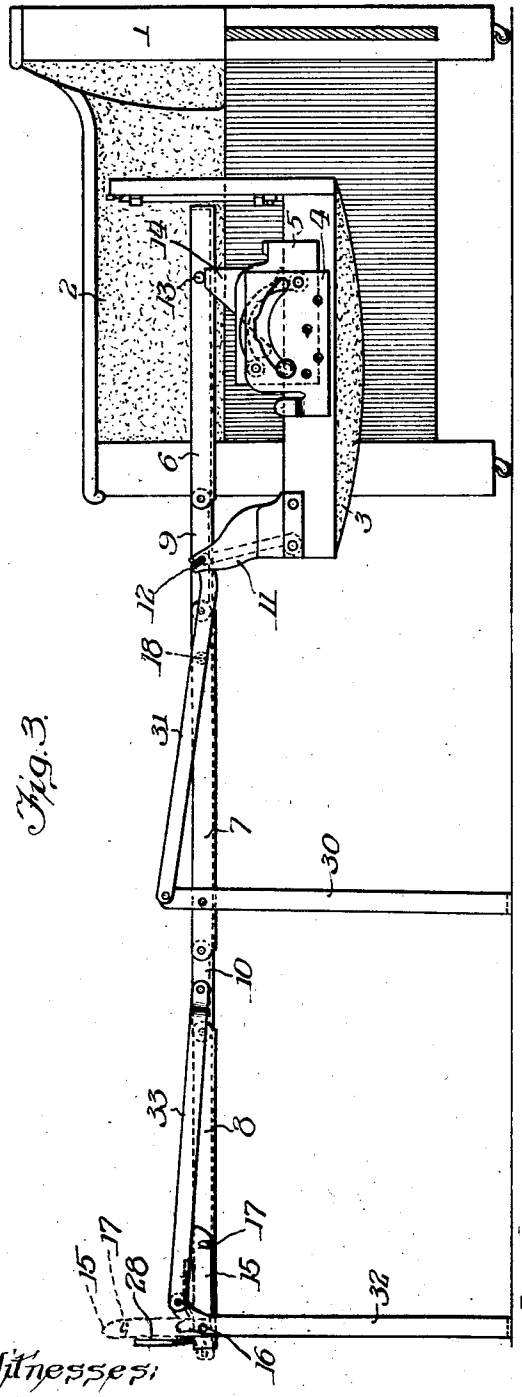


Fig. 3.

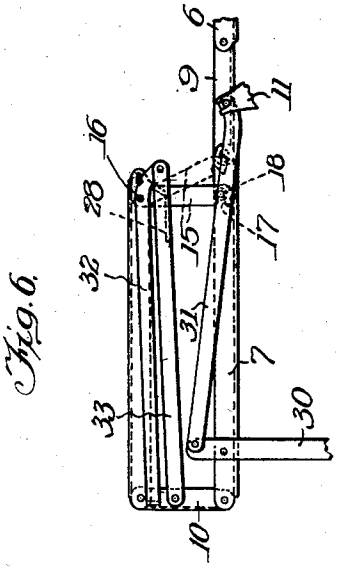


Fig. 6.

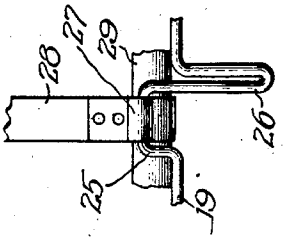


Fig. 5.

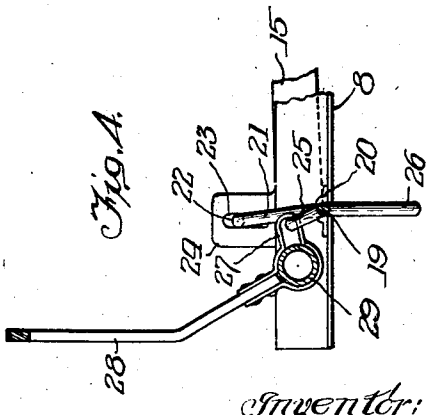


Fig. 4.

Witnesses:

Geo. C. Davison

William E. Hamm.

Inventor:

Marcus J. Bartlett.

By Rummler & Rummler,

Attys.

UNITED STATES PATENT OFFICE.

MARCUS J. BARTLETT, OF CHICAGO, ILLINOIS, ASSIGNOR TO PULLMAN COUCH COMPANY, A CORPORATION OF ILLINOIS.

SOFA-BED.

1,074,342. Specification of Letters Patent. Patented Sept. 30, 1913.

Application filed June 18, 1913. Serial No. 774,348.

To all whom it may concern:

Be it known that I, MARCUS J. BARTLETT, a citizen of the United States of America, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Sofa-Beds, of which the following is a specification.

The main objects of this invention are to provide an improved form of sofa bed of the type in which a plurality of alternate wide and narrow sections are pivotally connected together so as to be folded into a supporting frame to form a sofa, or to be horizontally extended to form a bed; to provide improved mechanism for locking certain of said sections together in their folded positions; and to provide improved means for operating said locking mechanism.

An illustrative embodiment of this invention is shown in the accompanying drawings, in which:—

Figure 1 is a plan view of the sofa bed with the sections extended to form a bed, parts thereof being broken away or omitted. Fig. 2 is a side elevation, partly sectional, of the sofa bed with the bed sections in their folded positions and the seat inverted. Fig. 3 is a side elevation of the sofa bed with the bed sections extended. Fig. 4 is an enlarged sectional elevation of the operating means for the locking mechanism as viewed from the plane of the line A—A of Fig. 1. Fig. 5 is a fragmentary end view of the parts shown in Fig. 4. Fig. 6 is a side elevation of the bed sections with the outer wide section folded onto the middle wide section.

In the construction shown in the drawings, the sofa bed comprises the usual frame, having a back 1 and ends 2 on which is the sofa seat 3. Plates 4 and 5 are respectively supported on the ends 2 of the frame and the ends of the seat 3, and have coacting pins and slots by means of which the seat is adapted to be revolved from a sofa position to an inverted position to permit the unfolding of the bed sections carried thereby. The bed sections, of which there are the inner wide section 6, middle wide section 7, outer wide section 8, and intermediate narrow sections 9 and 10, are supported on the under side of the sofa seat 3 by means of the brackets 11. The narrow section 9 is provided with pins 12 which are secured to the brackets 11, and which pivotally support the section so that it may be turned from a transverse position with respect to said wide sections to a horizontally alined position. The inner wide section 6 is provided with pins 13 which coact with the cam plates 14 for elevating the section into horizontal alinement with the other bed sections when they are extended. The locking mechanism for securing the outer wide section 8 to the middle wide section 7 in their folded positions comprises latch members or plates 15 pivotally mounted at 16 at the sides of the outer wide section 8, adjacent to the corners thereof. The latch members 15 are provided with notches 17 which are adapted to receive the pins 18 located on the middle wide sections 7 adjacent to the rear corners thereof. The latch members 15 are adapted to occupy a retracted position at the sides of the bed section 8 when the sections are extended, and occupy a position transverse thereto when the sections are folded so that the notches 17 will engage the pins 18. The mechanism for shifting the latch members 15 from one to the other of these positions comprises a shaft or rod 19 pivotally mounted in the bearings 20 at the sides of the section 8, and having transversely disposed arms 21 extending upwardly from the ends thereof. Outwardly disposed shoulders 22 are formed on the ends of the arms 21 and are received in slots 23 in the angularly disposed extensions 24 integrally formed on the members 15. The shaft or rod 19 extends across the end of the outer bed section 8 and near the middle is bent upwardly to form an arm 25 and downwardly to form another arm or extension 26. The shaft 19 together with the arms 21 and 25 forms a crank which is adapted to be operated by the foot rest 28. The foot rest 28 is pivotally mounted on the bar 29 extending across the end of the wide section 8 and near the middle is provided with a depending fork 27 which engages the arm 25 on the shaft 19. The foot rest is adapted to be shifted from a substantially parallel position with respect to said section, when said bed sections are folded, to a transverse position when said sections are extended. When so shifted the shaft 19 is partially rotated whereby the members 15 are also shifted by reason of the connection of the arms 21. The arm 26 is provided for the purpose of retracting the latch members a sufficient distance to disengage the pins 18 when it is not convenient to operate the

members 15 by means of the foot rest 28. The middle section 7 is supported in its extended position by means of a leg 30 which is operated by a link 31, and the outer section 8 is supported by a leg 32 operated by a link 33.

The operation of the device is as follows: When it is desired to convert the sofa bed from a bed to a sofa, the foot rest 28 is first shifted from a vertical position down onto the mattress and bedding. This movement of the foot rest causes the fork 27 operating on the arm 25 to rotate the shaft 19 whereby the latch members 15 are shifted from their retracted positions into vertically disposed positions transversely of the bed section. As the outermost section 8 is then folded over onto the middle wide section, the members 15 strike the pins 18 and cause them to enter into engagement with the slots 17 whereby the bed sections are locked together as shown in Fig. 6. The sections are then folded over onto the seat frame where they may be locked thereto in any desired manner. The seat 3 is then revolved into its normal position with respect to the frame, so that it may be used as a sofa. When it is desired to unlock the bed sections 7 and 8 in converting the sofa bed into a bed, the operator lifts the arm 26 so as to give a partial rotation to the shaft 19 and cause the latch members 15 to be retracted from the pins 18 and permit the bed section 8 to be shifted to its horizontal position. The foot rest 28 is then shifted to its vertical position, which causes the fork 27 to rotate the shaft 19 and cause the arms 21 to retract the members 15 into positions at the sides of the outer bed section 8.

Although but one specific embodiment of this invention has been herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

I claim:—

1. A sofa bed, comprising alternate wide and narrow sections pivotally connected together and adapted to be folded with the wide sections substantially parallel, and the narrow sections disposed transversely thereto to form a sofa, or to be extended in substantially horizontal alinement to form a bed, a latch member pivotally mounted on one of said sections, coacting engaging means on said latch member and another of said sections, a part rotatably mounted on said one section, an arm carried by said part and connected to said latch member, and means for swinging said part whereby said latch member will be shifted into and out of position to permit the engagement of said coacting engaging means.

2. A sofa bed, comprising alternate wide and narrow sections pivotally connected together and adapted to be folded with the wide sections substantially parallel, and the narrow sections disposed transversely thereto to form a sofa, or to be extended in substantially horizontal alinement to form a bed, a latch member pivotally mounted on one of said wide sections, coacting engaging means on said latch member and another of said wide sections, a part rotatably mounted on said one section, an arm carried by said part and connected to said latch member, and means for swinging said part whereby said latch member will be shifted into and out of position to permit the engagement of said coacting engaging means.

3. A sofa bed, comprising alternate wide and narrow sections pivotally connected together and adapted to be folded with the wide sections substantially parallel, and the narrow sections disposed transversely thereto to form a sofa, or to be extended in substantially horizontal alinement to form a bed, a member pivotally mounted on one of said wide sections, a shoulder on another of said wide sections, said member having a notch therein adapted to engage said shoulder, a shaft rotatably mounted on said one section, an angularly disposed arm carried by said shaft and connected to said member, and means adapted to be actuated to revolve said shaft whereby said member will be shifted into position to permit the engagement of said notch and shoulder when said sections are folded, and be shifted into a retracted position at the side of said one section when said sections are extended.

4. A sofa bed, comprising alternate wide and narrow sections pivotally connected together and adapted to be folded with the wide sections substantially parallel, and the narrow sections disposed transversely thereto to form a sofa, or to be extended in substantially horizontal alinement to form a bed, a member pivotally mounted on one of said sections, coacting engaging means on said member and another of said sections, a part rotatably mounted on said one section, an arm carried by said part and connected to said member, a foot rest shiftably mounted on said one section, and means operatively connecting said foot rest with said member whereby said member is adapted to be actuated by said foot rest for shifting said member into and out of position to permit the engagement of said coacting engaging means.

5. A sofa bed, comprising alternate wide and narrow sections pivotally connected together and adapted to be folded with the wide sections substantially parallel, and the narrow sections disposed transversely thereto to form a sofa, or to be extended in substantially horizontal alinement to form a bed, a member pivotally mounted on one of

said wide sections, coacting engaging means on said member and another of said wide sections, a crank pivotally mounted on said one wide section and having one arm thereof connected to said member, and means movably mounted on said one wide section and operatively connected to the other arm of said crank and adapted to be actuated to cause said crank to shift said member into position to permit the engagement of said coacting engaging means when said sections are folded and to shift said member into a retracted position at the side of said one wide section when said sections are extended.

6. A sofa bed, comprising alternate wide and narrow sections pivotally connected together and adapted to be folded with the wide sections substantially parallel and the narrow sections disposed transversely thereto to form a sofa, or to be extended in substantially horizontal alinement to form a bed, a member pivotally mounted on one of said wide sections, coacting engaging means on said member and another of said wide sections, a part rotatably mounted on said one section, an arm carried by said part and connected to said member, a foot rest pivotally mounted on said one section and adapted to be moved from a substantially parallel position, with respect to said section, to a transverse position, and a crank mounted adjacent to said foot rest and having the two arms thereof extending in substantially the same general direction and respectively connected to said member and to said foot rest whereby the movement of said foot rest is adapted to cause said crank to shift said member into and out of position for permitting the engagement of said coacting engaging means.

7. A sofa bed, comprising alternate wide and narrow bed sections pivotally connected together and adapted to be folded with the wide sections substantially parallel and with the narrow sections transversely disposed thereto to form a sofa, or extended in substantially horizontal alinement to form a bed, members pivotally mounted at the sides of the outer wide section and having notches formed therein, pins on the sides of another of said wide sections adapted to be received in said notches, angularly disposed extensions on said members having slots formed therein, a shaft extending across the end of said one wide section, angularly disposed arms carried at the ends of said shaft, shoulders on said arms engaging the slots in said extensions, and means adapted to rotate said shaft for causing said members to be shifted into and out of position to permit the engagement of said notches and pins.

8. A sofa bed, comprising alternate wide and narrow bed sections pivoted together and foldable with the wide sections substantially parallel and with the narrow sections transversely disposed thereto, members pivotally mounted at the sides of the outer wide sections and having notches formed therein, pins on the sides of another of said wide sections received in said notches, angularly disposed extensions on said members having slots formed therein, a shaft extending across the end of said one wide section, angularly disposed arms carried at the ends of said shaft, shoulders on said arms engaging the slots in said extensions, a foot rest pivotally mounted on said one section, a fork carried by said foot rest, and an arm carried by said shaft and engaged by said fork, said foot rest being adapted to be shifted into and out of a transverse position with respect to said one section whereby said shaft will be rotated so as to cause said members to be respectively shifted out of and into position to cause the engagement of said notches and pins.

9. A sofa bed comprising alternate wide and narrow bed sections pivoted together and foldable with the wide sections substantially parallel and with the narrow sections transversely disposed thereto, members pivotally mounted at the sides of the outer wide section and having notches formed therein, pins on the sides of another of said wide sections received in said notches, angularly disposed extensions on said members having slots formed therein, a shaft extending across the end of said one wide section, angularly disposed arms carried at the ends of said shaft, shoulders on said arms engaging the slots in said extensions, a foot rest pivotally mounted on said one section, a fork carried by said foot rest, an arm carried by said shaft and engaged by said fork, said foot rest being adapted to be shifted into and out of a transverse position with respect to said one section whereby said shaft will be rotated so as to cause said members to be respectively shifted out of and into position to cause the engagement of said notches and pins, and an extension on said shaft adapted to be used in partially rotating said shaft when said sections are folded, for shifting said members to disengage said pins.

Signed at Chicago this 11th day of June 1913.

MARCUS J. BARTLETT.

Witnesses:
EDWIN PHELPS,
M. IRENE HUTCHINGS.