

H. D. PENNEY.

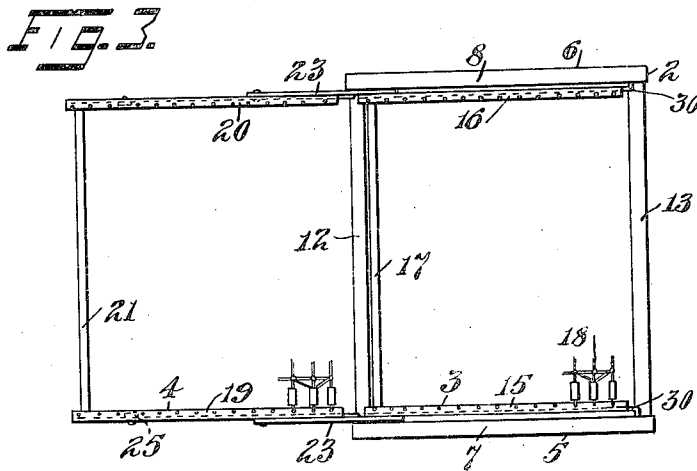
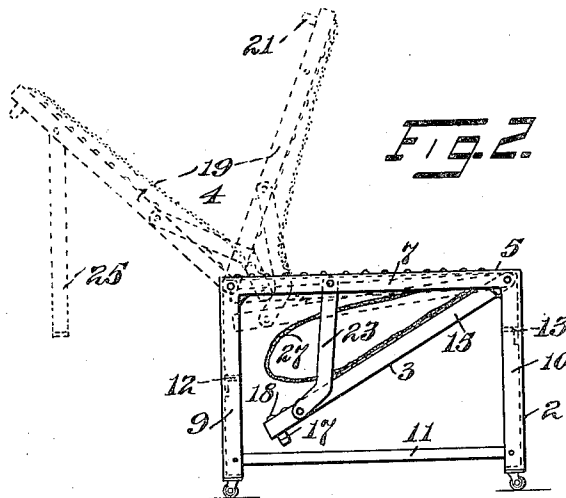
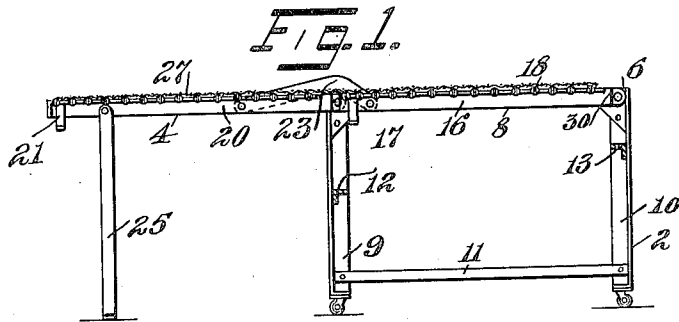
COUCH BED.

APPLICATION FILED MAR 18, 1909.

Patented Dec. 7, 1909.

2 SHEETS—SHEET 1.

942,459.



Witnesses:

G. G. Fuss,
Attest

Inventor:

Harold D. Penney;
By his Attorney,

F. W. Richards

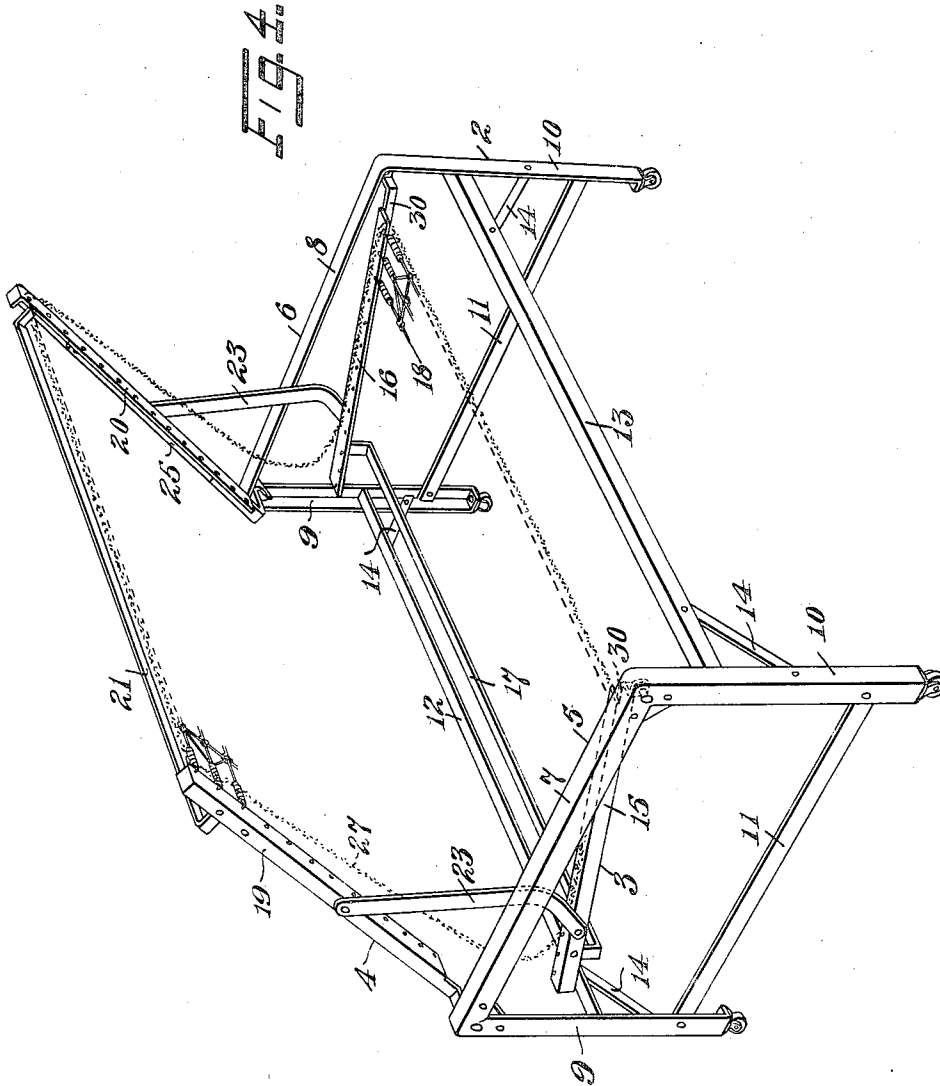
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A. B. Mattingly

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UNITED STATES PATENT OFFICE.

HAROLD D. PENNEY, OF NEW YORK, N. Y.

COUCH-BED.

942,459.

Specification of Letters Patent.

Patented Dec. 7, 1909.

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To all whom it may concern:

Be it known that I, HAROLD D. PENNEY, a citizen of the United States, residing in New York, borough of Brooklyn, in the
5 county of Kings and State of New York, have invented certain new and useful Improvements in Couch-Beds, of which the following is a specification.

This invention relates to couch beds, and
10 more particularly to couch beds which can be readily transformed from a couch or divan into a double bed, the object of the invention being to provide a couch bed of this form made up in part of a pair of
15 swinging mattress frames or sections, one located under the other and one shifted by the other thereby to form the structure into either a couch or divan or a double bed.

A further object of the invention is the
20 provision of an improved couch bed made up of a supporting or main section having a pair of swinging mattress frames connected thereto in such a manner that one will be shifted by the other and which will have
25 therebetween, when the structure is in the form of a couch, a storage space for the reception of the bed clothing, the organization being such that the necessity of removing the bed clothing when the swinging sections
30 are manipulated either to form a couch or a double bed is avoided.

A further object of the invention is to provide an extremely simple, readily manipulated metallic formed couch or couch
35 bed made up of a supporting or main section carrying a pair of swinging mattress frames pivotally secured to the main section at opposite points and connected together for simultaneous operation on the swinging of
40 one of said frames.

In the drawings accompanying and forming part of this specification, Figure 1 is an end view of this improved couch bed, shown in position to form a double bed; Fig. 2 is
45 an end view illustrating the several positions of the swinging sections as they are shifted from their couch or divan forming position to the double bed position; Fig. 3 is a top view of the structure when in the
50 form of a double bed; and Fig. 4 is a perspective view of this improved couch bed partly open.

Similar characters of reference indicate corresponding parts throughout the different figures of the drawings.

Couch beds as usually constructed, when

formed of metal, have no storage space for the reception of the bed clothing unless a box is furnished for this purpose. This, of course, increases the cost of the structure
60 and also necessitates the removal of the bed clothing from the box to the bed after the structure is opened to form a double bed and its removal from the bed to the box when it is desired to close the bed, and as
65 the bed clothing is usually more or less bulky, and sometimes heavy, it is quite an advantage to obviate the necessity of removing the bed clothing from the bed when it is manipulated. Furthermore, in the swing-
70 ing beds with which I am familiar, made up in part of a pair of swinging sections, it has been necessary to swing one section in one direction and the other in the opposite, either using both hands for this purpose or
75 swinging one section after the other.

In the present improvement one of the objects is to do away with this and enable both sections to be simultaneously operated on the swinging of one of them, as for instance
80 the top section, while at the same time carrying the bed clothing into position where it may be spread out upon the bed.

In the embodiment shown in the drawings, this improved couch bed is made up of a
85 main or stationary section 2 and a pair of swinging mattress frames or sections 3 and 4. The main section, while it may be made of various forms and materials, is herein shown as comprising a pair of end frames
90 5 and 6, each comprising a cross or end bar 7 or 8 having connected thereto, and shown herein as integral therewith, a pair of legs 9 and 10, each pair connected by a brace bar
95 11. These end frames are also connected by a pair of side bars 12 and 13, suitably connected by braces 14, with the legs 9 and 10. In the present instance this main frame is made up of angle iron, as are also the swing-
100 ing frames hereinafter described, although it may be made up of tubular material if preferred. Connected to this main frame, at opposite points, is a pair of swinging frames 3 and 4, one frame, as 3, comprising a pair of end or metallic mattress supporting bars
105 15, 16, each pivotally connected at one end, as its outer end, to one of the end frames of the main supporting section for swinging movement. These metallic supporting bars
110 15, 16 are connected by a reinforcing or side bar 17, shown herein as of drop formation, thereby to permit the proper yielding of the

metallic fabric 18 which is connected in any suitable manner to the bars 15, 16. It will be understood that any suitable form of yielding supporting means or fabric for the stuffed mattress may be used. The other swinging frame, as 4, is made up in a similar manner, and comprises metallic supporting bars 19, 20, connected by a drop reinforcing or side bar 21 adjacent to its outer ends. These metallic fabric supporting bars are pivoted at the opposite side of the main frame, one to each of the end frames, and connected by a similar metallic fabric to that shown connecting the bars 15 and 16 of the swinging frame 3. These swinging frames 3 and 4 are linked together by a pair of links 23, whereby as the upper frame 4 is swung upward and over to form a double bed, the lower frame 3 is drawn upward into position level with the upper frame 4, the links being of such form as to permit this, the pivotal connections between the parts being such that they are in alinement when the structure is in the form of a double bed, so that the return of the under section is not possible until the upper section is manually swung backward.

For supporting the upper, top or overlapping section 4, a pair of legs 25 may be provided adapted to swing down to rest on the floor and to swing backward to close up when the structure is transformed into a couch bed.

In practice, instead of providing each swinging frame with a separate metallic fabric, one only may be used, it being connected to each of the swinging frames, it being sufficiently full, however, to permit the sections to be closed up in the proper manner.

In the present instance I have shown connected to each swinging frame a suitable covering or sheet 27 connected at one edge adjacent to the outer edge of the upper frame 4, and also connected adjacent to the front or outer edge of the frame 3, thus forming a bag or flexible receptacle for the storage of the bed clothing, while at the same time it also forms a covering for the metallic fabrics and prevents the latter from damaging or soiling, as by rusting, the stuffed mattress.

In operation, when the structure is closed, as shown in full lines in Fig. 2, the bed clothing will be within the bag. When, however, the upper frame is thrown up and over it will draw up not only the under section, but also the bed clothing within the bag into position to be spread out upon the bed. When it is desired to close up the sections to form a divan or single couch, it is merely necessary to grasp the upper section and throw it back on top of the main frame, which operation lowers the under frame into the position shown in full lines

in Fig. 2, and at the same time carries the bed clothing down with it, where it is completely inclosed within the flexible bag.

From the foregoing it will be observed that the lower or under swinging section is pivoted at the outer side of the main frame, while the other or upper section is pivoted at the opposite or rear side of such frame, and that the lower section always remains between the end frames of the main section, being shifted by the manipulation of the upper section, the space between the two sections when the structure is in the form of a couch forming a storage space for the bed clothing, which, in the present instance, is stored within the bag provided for that purpose. It will be understood, however, that other means of preventing the bed clothing from slipping from the lower section may be utilized if preferred, as by connecting the two rear ends of the swinging sections together by a flexible material of some kind instead of providing the bag sufficiently long to cover both metallic fabrics. It will also be understood that various details may be more or less modified, if preferred, without departing from the scope of this improvement.

When the structure is in the form of a single couch or divan the front edge of the upper swinging section will rest upon the forward or front ends of the lower or under section, the bars 15 and 16 being preferably angled, as at 30, to form rests.

In the present embodiment of this improvement it will be observed that the pivotal connections of the two swinging sections at each end of the main frame are in alinement, and that the pivotal connections of the link are likewise in alinement with the pivotal connections of the swinging sections when the structure is in the form of a double bed, whereby the swinging sections are held locked against return movement when the structure is in the form of a double bed until the upper swinging section is manipulated in the proper manner.

In the present improvement it will also be noted that it is not necessary to use the same side of the upper swinging section 4 to sleep upon that is used to form the top of the couch when the structure is in the form of a divan or couch, so that when a fancy or other expensive stuffed seat is used in connection with the swinging section 4 as the seat of the couch this is carried out of the way so that it is not slept upon, thus, of course, materially prolonging the life of the seat.

I claim as my invention:

1. In a couch bed, the combination of a main frame, and a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one of said frames being over the other and one having an inclined position

with relation to and spaced from the other of said frames when the structure is in the form of a single bed or couch, thereby to form between them a storage space for the reception of the bed clothing.

2. In a couch bed, the combination of a main frame, and a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one of said frames being under the other and the lower frame thereof having an inclined position with relation to and spaced from the upper frame when the structure is in the form of a single couch, thereby to form between them a storage space for the reception of the bed clothing.

3. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one of said frames being over the other and one having an inclined position with relation to and spaced from the other of said frames when the structure is in the form of a single bed or couch thereby to form between them a storage space for the reception of the bed clothing, and means connected to said swinging frames for holding the bed clothing in its storage space.

4. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one of said frames being under the other and the lower frame thereof having an inclined position with relation to the upper frame when the structure is in the form of a single couch thereby to form a storage space for the reception of the bed clothing, and means connected to said swinging frames for holding the bed clothing in its storage space.

5. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one of said frames having an inclined position with relation to the other of said frames when the structure is in the form of a single bed or couch thereby to form a storage space for the reception of the bed clothing, and means connected to said swinging frames for holding the bed clothing in its storage space and comprising a fabric secured adjacent to the forward end of each of said swinging frames whereby it also forms a covering for the upper sides of said frames.

6. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one of said frames being under the other and the lower frame thereof having an inclined position with relation to the upper frame when the structure is in the form of a

single couch thereby to form a storage space for the reception of the bed clothing, and means connected to said swinging frames for holding the bed clothing in its storage space and comprising a fabric secured adjacent to the forward end of each of said swinging frames whereby it also forms a covering for the upper sides of said frames.

7. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, said frames being spaced apart when the structure is in the form of a single couch thereby to form a storage space for the reception of the bed clothing, and means connected to said swinging frames for holding the bed clothing in the storage space and comprising a fabric secured adjacent to the forward end of each of said swinging frames whereby it also forms a covering for the upper sides of said frames.

8. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and linked together for manipulation one by the other, one under and spaced from the other when the structure is in the form of a couch, and a fabric connected to each of said frames for covering the upper sides thereof and forming a bag for the reception of the bed clothing when the structure is in the form of a single couch.

9. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one under and spaced from the other when the structure is in the form of a couch, a yielding mattress supporting means secured to each of said frames, and means also secured to said frames for holding the bed clothing against displacement.

10. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one under and spaced from the other when the structure is in the form of a couch, a yielding mattress supporting means secured to each of said frames, and means also secured to said frames for holding the bed clothing against displacement, said means being connected to both of said swinging frames adjacent to the front edge of each thereby to also form a covering for the upper side of each of said frames.

11. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one under and spaced from the other when the structure is in the form of a couch to provide a storage space for the bed clothing, the lower frame being shifted by

the upper frame into a horizontal position when the structure is transformed into a double bed.

12. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof, links connecting said frames together adjacent to their ends, whereby one frame will be manipulated by the other, one frame under and spaced from the other when the structure is in the form of a couch thereby to form a storage space for the bed clothing, the lower frame having an inclined position with relation to the upper frame when the structure is in the form of a couch, and both of said frames being level one with the other when the structure is transformed into a double bed.

13. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof, links connecting said frames together adjacent to their ends, whereby one frame will be manipulated by the other, one frame under and spaced from the other when the structure is in the form of a couch thereby to form a storage space for the bed clothing, the lower frame having an inclined position with relation to the upper frame when the structure is in the form of a couch and both of said frames being level one with the other when the structure is transformed into a double bed, and means for closing in the space between said frames.

14. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof, links connecting said frames together adjacent to their ends, whereby one frame will be manipulated by the other, one frame under and spaced from the other when the structure is in the form of a couch thereby to form a storage space for the bed clothing, the lower frame having an inclined position with relation to the upper frame when the structure is in the form of a couch and both of said frames being level one with the other when the structure is transformed into a double bed, and means for closing in the space between said frames, said means comprising a fabric secured to each of said frames.

15. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof, links connecting said frames together adjacent to their ends, whereby one frame will be manipulated by the other, one frame under and spaced from the other when the structure is in the form of a couch thereby to form a storage space for the bed clothing, the lower frame having an inclined position with relation to the upper frame when the structure is in the form of a couch and both of said frames being level one with the other when the structure is transferred into a double

bed, and means for closing in the space between said frames, said means comprising a fabric secured to each of said frames adjacent to the front edge of each.

16. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof, links connecting said frames together adjacent to their ends, whereby one frame will be manipulated by the other, one frame under and spaced from the other when the structure is in the form of a couch thereby to form a storage space for the bed clothing, the lower frame having an inclined position with relation to the upper frame when the structure is in the form of a couch and both of said frames being level one with the other when the structure is transformed into a double bed, and means for closing in the space between said frames, said means comprising a fabric secured to each of said frames adjacent to the front edge of each and also forming a covering for the top of each of said frames.

17. In a couch bed, the combination of a main frame comprising a pair of end frames and side bars connecting the same, a pair of swinging metallic mattress supporting frames pivotally connected to said end frames at opposite sides thereof, whereby one will be under the other when the structure is in the form of a couch, links connecting said frames together and of a length to support the lower frame in an inclined position below the upper frame when the structure is in the form of a couch, thereby to form a storage space for the reception of the bed clothing.

18. In a couch bed, the combination of a main frame comprising a pair of end frames and side bars connecting the same, a pair of swinging metallic mattress supporting frames pivotally connected to said end frames at opposite sides thereof, whereby one will be under the other when the structure is in the form of a couch, links connecting said frames together and of a length to support the lower frame in an inclined position below the upper frame when the structure is in the form of a couch, thereby to form a storage space for the reception of the bed clothing, said links having a curved formation.

19. In a couch bed, the combination of a main frame comprising a pair of end frames and side bars connecting the same, a pair of swinging metallic mattress supporting frames pivotally connected to said end frames at opposite sides thereof, whereby one will be under the other when the structure is in the form of a couch, links connecting said frames together and of a length to support the lower frame in an inclined position below the upper frame when the structure is in the form of a couch, thereby to

form a storage space for the reception of the bed clothing, the pivotal connections of the pair of frames and links being such that when the structure is in the form of a double bed such pivotal connections will be in alinement.

20. In a couch bed, the combination of a main frame comprising a pair of end frames and side bars connecting the same, a pair of swinging metallic mattress supporting frames pivotally connected to said end frames at opposite sides thereof, whereby one will be under the other when the structure is in the form of a couch, links connecting said frames together and of a length to support the lower frame in an inclined position below the upper frame when the structure is in the form of a couch, thereby to form a storage space for the reception of the bed clothing, the pivotal connections of the pair of frames and links being such that when the structure is in the form of a double bed such pivotal connections will be in alinement, and legs carried by the upper swinging frame for supporting it on the floor.

21. In a couch bed, the combination of a main frame, a pair of swinging frames pivotally connected to the main frame at opposite sides thereof, such pivotal connections being in alinement, one frame being under and spaced from the other at its free side thereby to form a storage space, and a link or links connecting said frames together whereby the lower frame is swung upward or downward on the swinging of the upper frame, the pivotal connections of said link or links being also in alinement with the pivotal connections of the frames when the structure is in the form of a double bed, whereby the frames are held in their bed forming positions when the structure is in the form of a double bed.

22. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one having an inclined position under and spaced from the other when the structure is in the form of a couch, and yielding mattress supporting means secured to said frames.

23. In a couch bed, the combination of a main frame, and a pair of swinging frames or sections pivotally secured thereto one to

overlap the other with the free and unpivoted edge of each projecting into a position adjacent to the pivotal connection of the other when the structure is in the form of a couch, and supported one for swinging movement upward and outward at one side of such main frame when the structure is to be transformed into a double bed and the other for swinging movement from a position below said outwardly swinging section to a position level therewith when the structure is to be transformed into a double bed, said swinging sections being linked together for manipulation one by the other.

24. In a couch bed, the combination of a main frame, and a pair of swinging frames or sections pivotally secured thereto, one to overlap the other with the free and unpivoted edge of each projecting into a position adjacent to the pivotal connection of the other when the structure is in the form of a couch, and supported one for swinging movement upward and outward at one side of such main frame when the structure is to be transformed into a double bed and the other for swinging movement from a position below said outwardly swinging section to a position level therewith when the structure is to be transformed into a double bed, said swinging sections being linked together for manipulation one by the other, and one of said sections having an inclined position below the other when the structure is in the form of a couch.

25. In a couch bed, the combination of a main frame, and a pair of frames pivotally secured to the main frame on opposite sides thereof respectively to each swing on an axis that is fixed and immovable relative to the main frame, and a single link at each end of the bed fixedly pivoted respectively to the swinging frames, whereby the frames will be manipulated one by the other to shift from a position in substantially the same horizontal plane, to a position in which one frame extends below the other frame at an angle thereto.

Signed at 9-15 Murray st., New York, N. Y., March 16th, 1909.

HAROLD D. PENNEY.

Witnesses:

C. A. WEED,
T. E. BOYCE.