

C. L. PLUNKETT.

COUCH BED.

APPLICATION FILED DEC. 24, 1908.

Patented Feb. 21, 1911.

984,699.

2 SHEETS—SHEET 1.

FIG. 1

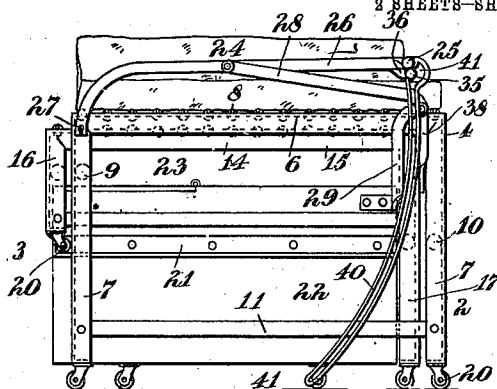


FIG. 2

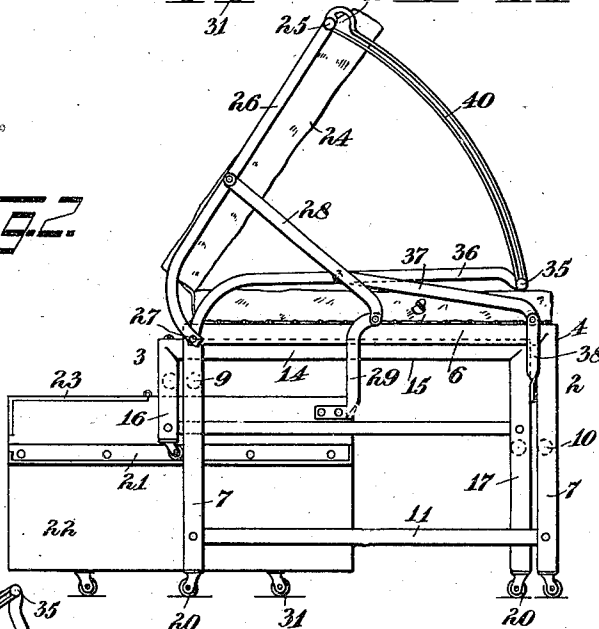
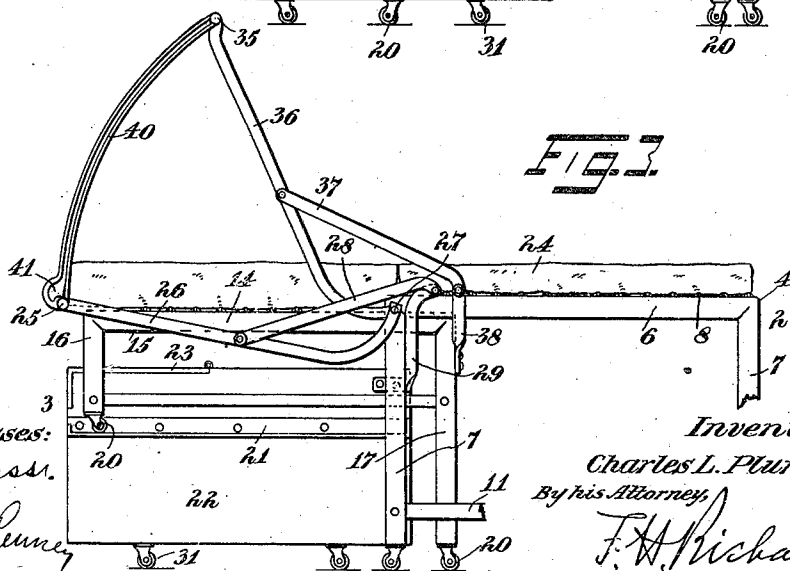


FIG. 3



Witnesses:  
H. O. Penney

H. O. Penney

Inventor:

Charles L. Plunkett,

By his Attorney,

F. H. Richards.

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2 SHEETS—SHEET 2.

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FIG. 4.

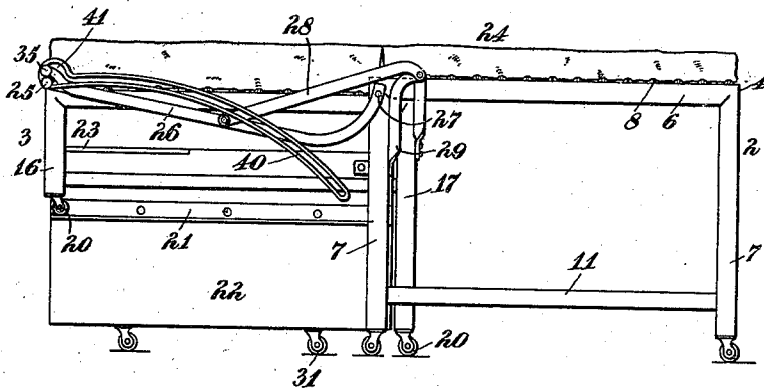
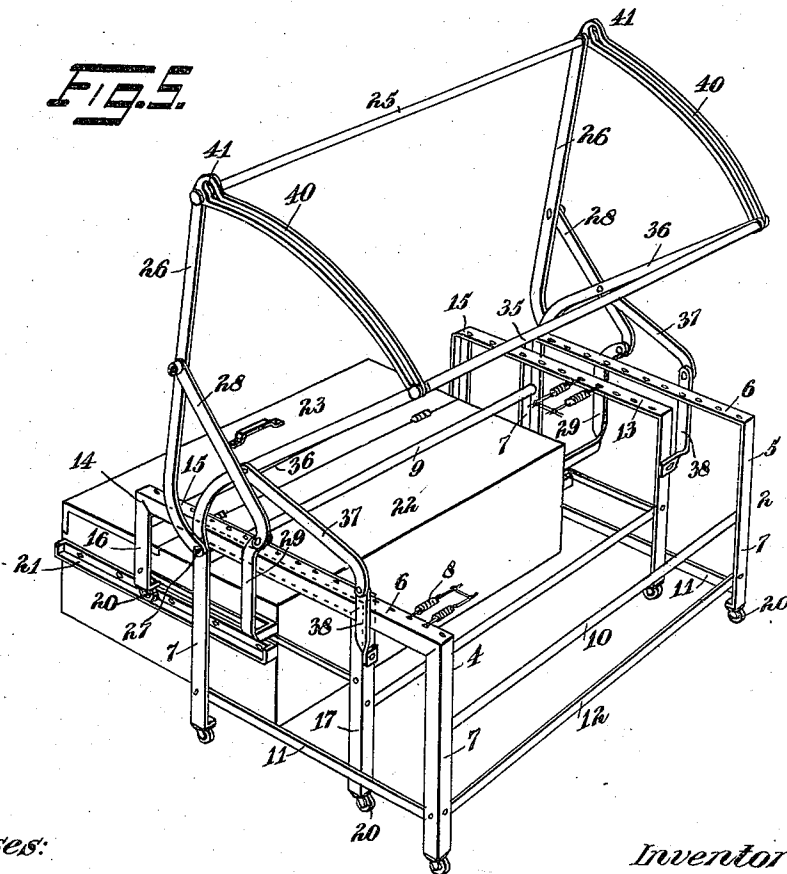


FIG. 5.



Witnesses:

*H. G. Fess.*

*H. D. Penney*

Inventor:

*Charles L. Plunkett.*

By his Attorney

*F. A. Richards.*

# UNITED STATES PATENT OFFICE.

CHARLES L. PLUNKETT, OF NEW YORK, N. Y., ASSIGNOR TO AMERICAN COUCH COMPANY, OF BROOKLYN, NEW YORK, A CORPORATION OF NEW YORK.

## COUCH-BED.

984,699.

Specification of Letters Patent. Patented Feb. 21, 1911.

Application filed December 24, 1908. Serial No. 469,119.

*To all whom it may concern:*

Be it known that I, CHARLES L. PLUNKETT, a citizen of the United States, residing in New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Couch-Beds, of which the following is a specification.

This improvement relates to sliding couch beds, the object of the invention being to provide a couch bed of this class with improved means for operating a storage receptacle for the bed clothing in advance of the opening of the bed to form a double bed and simultaneously therewith during the remainder of such movement and after the partial closing of the bed to form a couch, and also simultaneously with the opening or closing of a folding mattress for such bed.

In the drawings accompanying and forming part of this specification, Figure 1 is an end view of this improved couch bed folded; Fig. 2 is a similar view partly open; Fig. 3 is an end view with parts of the main section of the bed broken away and showing the bed in the position in which it is on the completion of the opening movement; Fig. 4 is an end view of the bed in the form of a double bed; and Fig. 5 is a perspective view with the metallic fabrics and mattresses removed and illustrating the bed partly open.

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

In folding beds it is not only desirable to provide a storage receptacle for the storage of the bed clothing, but it is essential, in order to prevent the handling of such bed clothing twice, that such storage receptacle be in a position so that access can be had thereto before the bed is entirely open to thus permit the bed clothing to be removed and placed on the mattress and so obviate the necessity of it being placed on some support or a chair and then subsequently removed and placed on the mattress. It is also desirable that in the closing of the bed the receptacle shall remain in an accessible position so that the bed clothing may be removed from the bed and placed in the storage receptacle without requiring it to be handled twice.

The object, therefore, of the present im-

provement is to provide a bed with a folding mattress which may be opened and closed simultaneously with the transformation of the bed into a double bed or a couch and with a storage receptacle which is manipulated into position simultaneously with the manipulation of the bed and the mattress, but in advance thereof when the bed is being transformed into a double bed and after the partial closing of the bed when it is being transformed into a couch, and all by a single operating means.

In the embodiment of the present improvement shown the bed comprises a pair of bed sections one consisting of a main section 2 and the other an extensible section 3. The main section is made up of a pair of end frames 4 and 5, each comprising a cross bar 6 having a pair of legs 7 attached thereto, a suitable yielding mattress support, such as a metallic fabric 8, being stretched between the cross bars 6. The end frames are connected by suitable side bars 9 and 10, the side bars 9 being preferably located somewhat higher than the side bars 10 according to the height of the storage receptacle. Reinforcing strips 11 may also be used to connect the legs of the end frames together when this is desirable, and the legs of each end frame may also be connected by suitable bars 12.

In the present instance the extensible or sliding section of the bed slides between the side bar 9 and the metallic fabric of the main section of the bed, and also comprises a pair of end frames 13 and 14, each made up of a cross bar 15 having a pair of legs 16 and 17. In the present embodiment one leg of each end frame of the extensible section is shown as somewhat shorter than the other, all the legs, however, being provided with suitable casters 20. The shorter leg of each end frame of the extensible section is adapted to move upon a track 21 carried at each end of the storage receptacle 22 which is in the form of a closed box having a hinged lid 23 at the top thereof.

The bed is provided with a folding mattress 24, one half of which is usually tied or otherwise secured to the main section of the bed and the other half attached to a swinging bar 25 connected by levers 26 with the main section, to the inner ends of which the levers are pivoted, as at 27, said levers also being connected by links 28 with brack-

ets 29 secured to the ends of the storage receptacle, whereby on the operation of this swinging bar the mattress will be opened and closed and the storage receptacle shifted on the floor, suitable casters 31 being provided on the underside thereof for this purpose.

For shifting the sliding section of the bed somewhat similar means to that used for shifting the storage receptacle is provided, this comprising a swinging bar 35 likewise connected by levers 36 to the inner end of the main section, preferably on the same pivots 27 carrying the levers 26. The levers 36 of the swinging bar 35 are connected by links 37, by means of brackets 38, to the extensible section, preferably at the rear thereof. Obviously, if both the swinging bars 25 and 35 started together the storage receptacle and the sliding section of the bed would move out at the same time, so that the cover of the storage receptacle would be below the metallic fabric of the sliding section and would not be accessible. In order, therefore to insure the operation of the storage receptacle in advance of the sliding of the sliding section so that access to the storage receptacle can be obtained before it is covered over by the metallic fabric of the sliding section it is essential that the movement of the sliding section take place after the storage receptacle has been partly shifted and in closing up the bed it is essential that the sliding section be shifted partly under the main section before any movement is imparted to the storage receptacle thereby to permit access to the latter when uncovered by the metallic fabric of the sliding section. For this purpose the two swinging bars 25 and 35 are connected by slotted links 40, each of which links is provided with an enlargement 41 at the end thereof, which is connected to the swinging bar 35 for the purpose hereinafter described.

In operation, the bed being in the form of a couch, as shown in Fig. 1, the bar 25 is grasped by the operator and pulled forward as shown in Fig. 2, at which time the storage receptacle is shifted outwardly from under both the main and the sliding sections, the latter of which has not as yet moved, whereby access to the storage receptacle is permitted. At this time it will be observed that the folding mattress, being carried by the swinging bar 25, is partly opened and opened sufficiently far to permit the bed clothing to be removed from the storage receptacle and thrown on to that half of the mattress which is attached to the main section, whereas even if the storage receptacle were partly shifted but the folding mattress was not open it would be necessary to place such bed clothing on a chair or other support and then subsequently remove it and place it on the mattress after the same was

open, thus requiring two handlings of the bed clothing. When the bar 25 is in the position shown in Fig. 2, at which time, as stated, the storage receptacle has been shifted sufficiently far to permit access thereto, the slotted links 40 have been drawn upwardly their full length and into such position that the lower ends thereof are in position to engage the bar 35 in readiness to operate the sliding section, and as the bar 25 is drawn farther forward and beyond a perpendicular position it will fall of its own weight, owing to the attachment of one half of the mattress thereto, into the position shown in Fig. 3 and thereby draw the bar 35 upward and slide out the sliding section from the position shown in Fig. 2 into the position shown in Fig. 3, the front or short legs of this sliding section moving at this time upon the tracks carried by the storage receptacle, and thus shift the sliding section outwardly to nearly its full extent, as shown in Fig. 3, and into position to receive one half of the folding mattress. The sliding section is further shifted its full extent as this bar 35 falls of its own weight into position shown in Fig. 4, at which time, owing to the enlargement of the slot in the slotted links 40, these links swing downward into position shown in Fig. 4, whereby they are out of the way. At this time the storage receptacle is entirely covered up by the metallic fabric of the extensible section. When it is desired to transform the bed into a couch the operator, instead of grasping the bar 25, grasps the bar 35 and swings it toward the main section, and as the bar is connected with the sliding section of the bed it will shift such sliding section in advance of any movement of the storage receptacle just as in opening the bed the storage receptacle was shifted prior to any movement of the sliding section. In other words, the sliding section will be shifted backwardly in advance of the storage receptacle for a part of the distance and sufficient to uncover the cover thereof, the storage receptacle being in position shown in Fig. 2 at the time the sliding section has been completely returned to its normal position, at which time the folding mattress is open to the extent shown in Fig. 2, so that the bed clothing can be removed from the mattress and immediately placed in the storage receptacle, the cover of which can be readily swung upward without being interfered with by the metallic fabric of the extensible section. The swinging bar 25, with the folding mattress attached thereto, in practice maintains the position shown in Fig. 2, so that it would not be necessary for the operator to hold up the swinging bar while she was handling the bed clothing, and a slight pressure on the bar 25 when in the position shown in Fig. 2 causes it to fall into the position shown in

Fig. 1, at which time the slotted links 40 move downward and assume the position shown in Fig. 1, where they are out of the way.

5 I claim as my invention:

1. In a couch bed, the combination of a pair of bed sections, one a shiftable section, and each having a yielding mattress supporting means resting horizontally one over the other when the structure is in the form of a couch thereby to form the seat thereof, a storage receptacle, and means for shifting said shiftable section relatively to the other section to form either a couch or a double bed and also effective to shift the storage receptacle, one of said parts in advance of the other to permit ready accessibility to the storage receptacle.

2. In a couch bed, the combination of a pair of bed sections, one a shiftable section, a storage receptacle, and means for shifting said shiftable section relatively to the other section to form either a couch or a double bed and also effective to shift the storage receptacle in advance of the shifting of the shiftable section when the sections are transformed into a double bed.

3. In a couch bed, the combination of a pair of bed sections, one a shiftable section, a storage receptacle, and means for shifting said shiftable section relatively to the other section to form either a couch or a double bed and also effective to shift the storage receptacle subsequent to the shifting of the shiftable section when the sections are transformed into a couch.

4. In a couch bed, the combination of a pair of bed sections, one a shiftable section, a storage receptacle, and means for shifting said shiftable section relatively to the other section to form either a couch or a double bed and also effective to shift the storage receptacle in advance of the shifting of the shiftable section when the sections are transformed into a double bed and subsequent to the shifting of the shiftable section when the sections are transformed into a couch.

5. In a couch bed, the combination of a pair of bed sections, one a main section and the other an extensible section and each comprising a pair of end frames having a metallic fabric stretched therebetween, side bars connecting the end frames of the main section, the metallic fabric of the extensible section sliding between a side bar and the metallic fabric of the main section, a storage receptacle located below one of the side bars of the main section, and means for sliding the extensible section to and from the main section to form either a couch or a double bed and also effective to shift the storage receptacle in advance of the shifting of the extensible section when the sections are transformed into a double bed and sub-

sequent to the shifting of the extensible section when the sections are transformed into a couch.

6. In a couch bed, the combination of a pair of bed sections, one a shiftable section, and each having a yielding mattress supporting means resting horizontally one over the other when the structure is in the form of a couch thereby to form the seat thereof, a folding mattress for said bed, a storage receptacle, and means for shifting the storage receptacle and shiftable bed section and opening and closing the mattress, one of said parts in advance of another to permit ready accessibility to the storage receptacle.

7. In a couch bed, the combination of a pair of bed sections, one a shiftable section, and each having a yielding mattress supporting means resting horizontally one over the other when the structure is in the form of a couch thereby to form the seat thereof, a folding mattress for said bed, a storage receptacle, and means for shifting the storage receptacle and shiftable section and opening and closing the mattress, one of said parts in advance of another at one time and the latter in advance of the former at another time.

8. In a couch bed, the combination of a pair of bed sections, one a shiftable section, and each having a yielding mattress supporting means resting horizontally one over the other when the structure is in the form of a couch thereby to form the seat thereof, a folding mattress for said bed, a storage receptacle, and means for shifting the storage receptacle and shiftable bed section and opening and closing the mattress, the storage receptacle in advance of the shifting of the shiftable bed section when the bed is being transformed into a double bed.

9. In a couch bed, the combination of a pair of bed sections, one a shiftable section, and each having a yielding mattress supporting means resting horizontally one over the other when the structure is in the form of a couch thereby to form the seat thereof, a folding mattress for said bed, a storage receptacle, and means for shifting the storage receptacle and shiftable bed section and opening and closing the mattress, the storage receptacle in advance of the shifting of the shiftable bed section when the bed is being transformed into a double bed and subsequent to the shifting of the shiftable bed section when the bed is being transformed into a couch.

10. In a couch bed, the combination of a pair of bed sections, one a shiftable section, a folding mattress for said bed, a storage receptacle, and means for shifting the storage receptacle and shiftable bed section and opening and closing the mattress, the storage receptacle in advance of the shifting of the shiftable bed section when the bed is being

transformed into a double bed and subsequent to the shifting of the shiftable bed section when the bed is being transformed into a couch, the folding mattress being shifted simultaneously with the shifting of the storage receptacle.

11. In a couch bed, the combination of a pair of bed sections, one a shiftable section, a folding mattress for said bed, a storage receptacle, and means for shifting the storage receptacle and shiftable bed section and opening and closing the mattress, the storage receptacle in advance of the shifting of the shiftable bed section when the bed is being transformed into a double bed and subsequent to the shifting of the shiftable bed section when the bed is being transformed into a couch, the folding mattress being partly opened in advance of the shifting of the shiftable section.

12. In a couch bed, the combination of a pair of bed sections, one a main section and the other an extensible section and each comprising end frames and one or more side bars, a yielding mattress support connected to said end frames, the mattress support of one section sliding between a side bar and the mattress support of the other section, a folding mattress for said bed, a storage receptacle, and means for shifting said extensible section to form either a couch or a double bed and effective also to open and close the mattress and shift the storage receptacle in advance of the shifting of the extensible section when the sections are transformed into a double bed.

13. In a couch bed, the combination of a pair of bed sections, one a main section and the other an extensible section and each comprising end frames and one or more side bars, a yielding mattress support for said end frames, the mattress support of one section sliding between a side bar and the mattress support of the other section, a folding mattress for said bed, a storage receptacle, and means for shifting said extensible section to form either a couch or a double bed and effective also to open and close the mattress and shift the storage receptacle subsequent to the shifting of said extensible section when the sections are transformed into a couch.

14. In a couch bed, the combination of a pair of bed sections, one a main section and the other an extensible section and each comprising end frames and one or more side bars, a yielding mattress support connected to said end frames, the mattress support of one section sliding between a side bar and the mattress support of the other section, a folding mattress for said bed, a storage receptacle, and means for shifting said extensible section to form either a couch or a double bed and effective also to open and close the mattress and shift the storage re-

ceptacle in advance of the shifting of the extensible section when the sections are transformed into a double bed and subsequent to the shifting of the extensible section when the sections are transformed into a couch.

15. In a couch bed, the combination of a pair of bed sections, one a sliding section, and each having a yielding mattress supporting means resting horizontally one over the other when the structure is in the form of a couch thereby to form the seat thereof, a folding mattress for said bed, a storage receptacle, and means for shifting said sliding section relatively to the other section to form either a couch or a double bed and effective also to open and close the mattress and shift the storage receptacle in advance of the shifting of the sliding section when the sections are transformed into a double bed and subsequent to the shifting of the sliding section when the sections are transformed into a couch.

16. In a couch bed, the combination of a pair of bed sections, one a sliding section, a storage receptacle provided with casters and having tracks for guiding one of said sections, and means for shifting said sliding section relatively to the other section to form either a couch or a double bed, said means having connection with the storage receptacle and also effective to shift the same in advance of the shifting of the sliding section when the sections are transformed into a double bed and subsequent to the shifting of the sliding section when the sections are transformed into a couch.

17. In a couch bed the combination of a pair of bed sections, one a sliding section, a folding mattress for said bed, a storage receptacle having tracks for supporting and guiding the sliding section, and means for shifting said sliding section relatively to the other section to form either a couch or a double bed and effective also to open and close the mattress and shift the storage receptacle in advance of the shifting of the sliding section when the sections are transformed into a double bed and subsequent to the shifting of the sliding section when the sections are transformed into a couch.

18. In a couch bed, the combination of a pair of bed sections, one a sliding section, a folding mattress for said bed, a storage receptacle having tracks for supporting and guiding the sliding section, and means for shifting said sliding section relatively to the other section to form either a couch or a double bed and effective also to open and close the mattress and shift the storage receptacle in advance of the shifting of the sliding section when the sections are transformed into a double bed and subsequent to the shifting of the sliding section when the sections are transformed into a couch, said means comprising a pair of swinging bars

pivotaly connected to the main section, one linked to the storage receptacle and the other to the sliding section and one attached to the folding mattress, and means connecting one of said bars to the other for permitting the operation of one of said bars in advance of the other at one time and both together at another time.

19. In a couch bed, the combination of a pair of bed sections, one a main section and the other a sliding section, each comprising end frames having one or more side bars connecting the same and a metallic fabric stretched therebetween, the metallic fabric of the sliding section moving between a side bar and the metallic fabric of the main section, a folding mattress for said bed, a storage receptacle having tracks at its ends for supporting and guiding the sliding section, and means for shifting said sliding section relatively to the main section to form either a double bed or a couch and effective also to open and close the mattress and shift the storage receptacle in advance of the shifting of the sliding section when the sections are transformed into a double bed and subsequent to the shifting of the sliding section when the sections are transformed into a couch.

20. In a couch bed, the combination of a pair of bed sections, one a main section and the other a sliding section, each comprising end frames having one or more side bars connecting the same and a metallic fabric stretched therebetween, the metallic fabric of the sliding section moving between a side bar and the metallic fabric of the main section, a folding mattress for said bed, a storage receptacle having tracks at its ends for supporting and guiding the sliding section, and means for shifting said sliding section relatively to the main section to form either a double bed or a couch and effective also to open and close the mattress and shift the storage receptacle in advance of the shifting of the sliding section when the sections are transformed into a double bed and subsequent to the shifting of the sliding section when the sections are transformed into a couch, said means comprising a pair of swinging bars pivotaly connected to the main section, one linked to the storage receptacle and the other to the sliding section and one attached to the folding mattress, and means connecting one of said bars to the other for permitting the operation of one in advance of the other at one time and both together at another time.

21. In a couch bed, the combination of a pair of bed sections, one a main section and the other a sliding section, a folding mattress for said bed, a storage receptacle, and means for shifting said sliding section relatively to the main section to form either a double bed or a couch and effective to also

open and close the mattress and shift the storage receptacle in advance of the shifting of the sliding section when the sections are transformed into a double bed and subsequent to the shifting of the sliding section when the sections are transformed into a couch, said means comprising a pair of swinging bars pivotaly connected to the main section, one linked to the storage receptacle and the other to the sliding section and one attached to the folding mattress.

22. In a couch bed, the combination of a pair of bed sections, one a main section and the other a sliding section, a folding mattress for said bed, a storage receptacle, and means for shifting said sliding section relatively to the main section to form either a double bed or a couch and effective to also open and close the mattress and shift the storage receptacle in advance of the shifting of the sliding section when the sections are transformed into a double bed and subsequent to the shifting of the sliding section when the sections are transformed into a couch, said means comprising a pair of swinging bars pivotaly connected to the main section, one linked to the storage receptacle and the other to the sliding section and one attached to the folding mattress, and means connecting one of said bars to the other for permitting the operation of one in advance of the other at one time and both together at another time.

23. In a couch bed, the combination of a pair of bed sections, one a main section and the other a sliding section, a folding mattress for said bed, a storage receptacle, and means for shifting said sliding section relatively to the main section to form either a double bed or a couch and effective also to open and close the mattress and shift the storage receptacle in advance of the shifting of the sliding section when the sections are transformed into a double bed and subsequent to the shifting of the sliding section when the sections are transformed into a couch, said means comprising a pair of swinging bars pivotaly connected to the main section, one linked to the storage receptacle and the other to the sliding section and one attached to the folding mattress, and slotted links connecting one of said bars to the other for permitting the operation of one in advance of the other at one time and both together at another time.

24. In a couch bed, the combination of a pair of bed sections, one a main and the other a sliding section, a folding mattress for said bed, a storage receptacle, and means for shifting said sliding section relatively to the other to form either a double bed or a couch and effective to also open and close the mattress and shift the storage receptacle in advance of the shifting of the sliding section when the sections are transformed into

a double bed and subsequent to the shifting of the sliding section when the sections are transformed into a couch, said means comprising a pair of swinging bars pivotally  
5 connected to the main section, one linked to the storage receptacle and attached to the folding mattress and the other linked to the sliding section, and means connecting one of said bars to the other for permitting the op-

eration of one in advance of the other at one 10 time and both together at another time.

Signed at 9-15 Murray st., New York, N. Y., Dec. 22, 1908.

CHARLES L. PLUNKETT.

Witnesses:

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