

H. L. HOHLFELD.
 ADJUSTABLE, COLLAPSIBLE, FOLDING HAMMOCK COUCH.
 APPLICATION FILED AUG. 11, 1908. RENEWED DEC. 16, 1909.

947,545.

Patented Jan. 25, 1910.

3 SHEETS—SHEET 1.

Fig. 1.

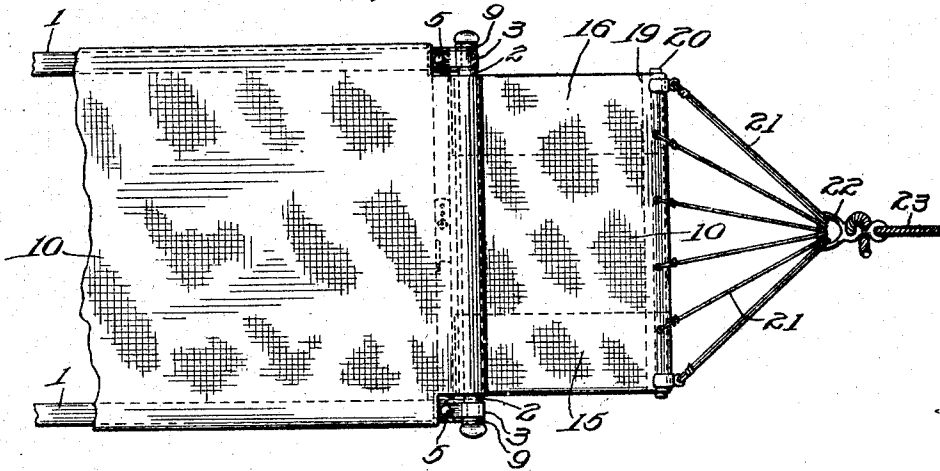
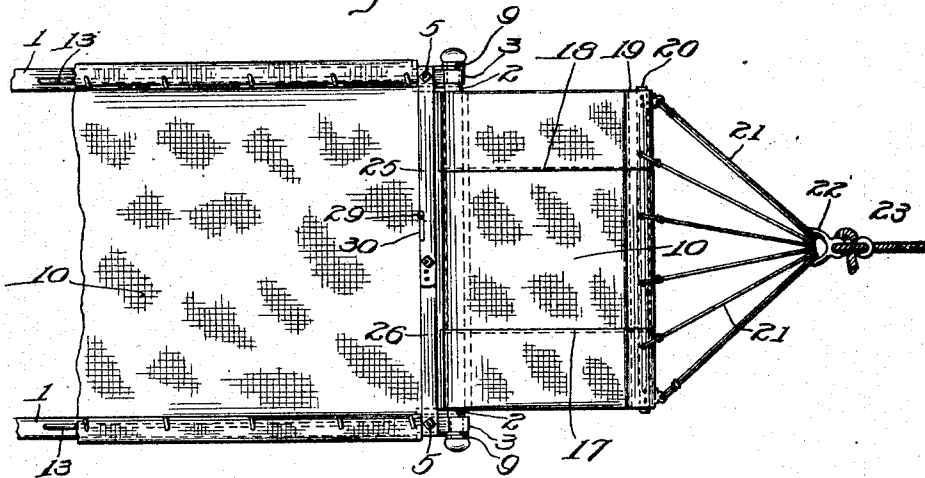


Fig. 2.



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Fig. 3.

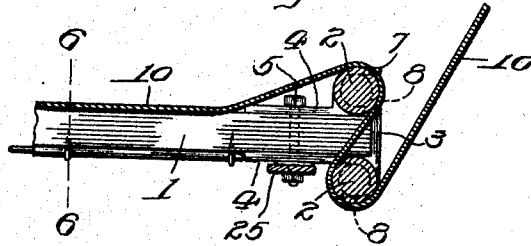


Fig. 4.

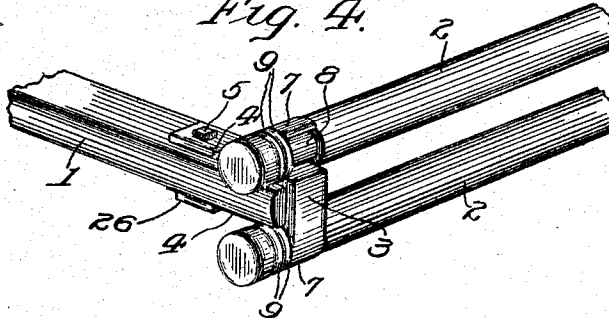


Fig. 5.

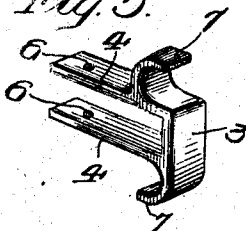


Fig. 6.

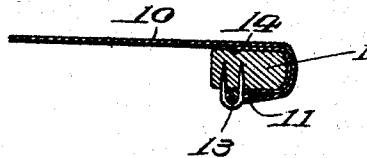


Fig. 7.

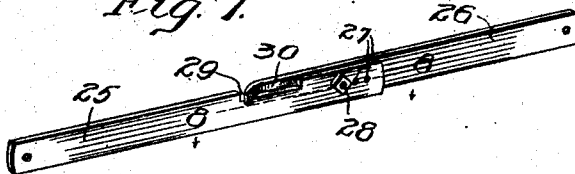
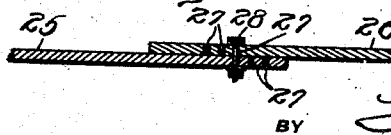


Fig. 8.



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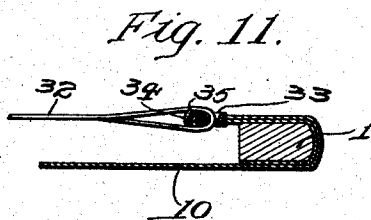
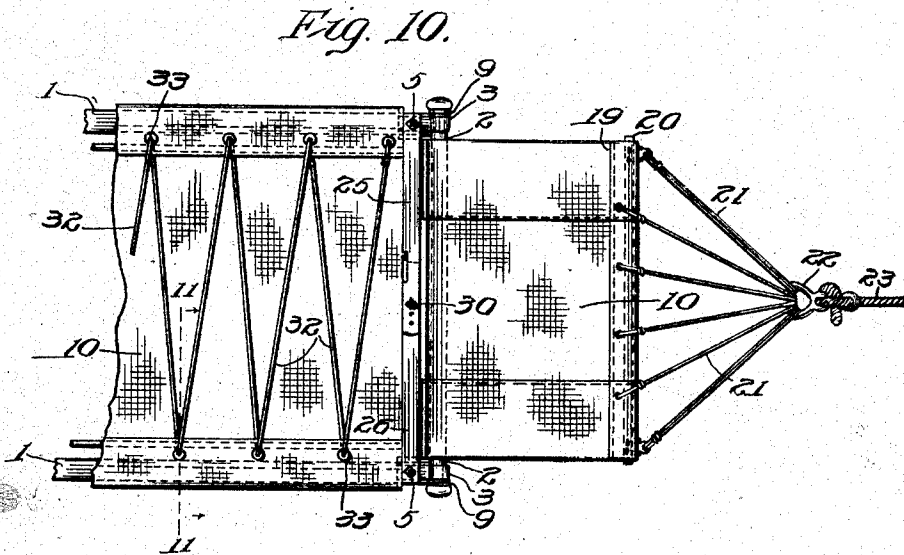
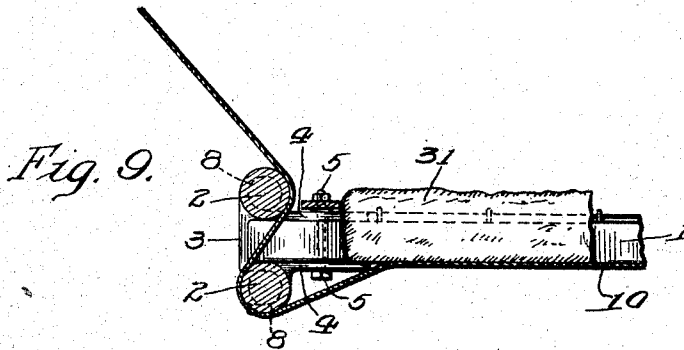
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ADJUSTABLE, COLLAPSIBLE, FOLDING HAMMOCK-COUCH.

947,545.

Specification of Letters Patent.

Patented Jan. 25, 1910.

Application filed August 11, 1908, Serial No. 447,933. Renewed December 16, 1909. Serial No. 533,391.

To all whom it may concern:

Be it known that I, HERMAN L. HOHLFELD, a citizen of the United States, and a resident of the city of Philadelphia, State of Pennsylvania, have invented a new and useful Adjustable, Collapsible, Folding Hammock-Couch, of which the following is a full, clear, and complete disclosure, reference being had to the accompanying drawings, forming a part of this specification.

The main objects of this invention are to provide a couch of simple, cheap, strong and durable construction; to provide a collapsible couch that may be readily opened and adjusted for use and that may be quickly and conveniently folded into a compact bundle for storage or transportation when not in use; to provide improved means for adjusting or expanding the couch, to keep the fabric of the couch tight; to provide means whereby the fabric of the couch may serve as a support for the couch and also to hold the parts of the couch together when in use; and to provide other improvements as will appear hereinafter.

In the accompanying drawings, Figure 1 is a fragmentary top plan view showing one end of a couch constructed in accordance with this invention, the opposite end being a duplicate of the end shown; Fig. 2 a fragmentary bottom plan view of the same; Fig. 3 a fragmentary longitudinal section on line 3—3 of Fig. 1; Fig. 4 a fragmentary perspective of one corner of the frame of the couch, the fabric being removed; Fig. 5 a perspective of one of the details of the couch; Fig. 6 a transverse section on lines 6—6 of Fig. 3; Fig. 7 a perspective of the expander of the couch; Fig. 8 a longitudinal section on line 8—8 of Fig. 7; Fig. 9 a fragmentary longitudinal section through one end of the couch showing the couch in its inverted position; Fig. 10 a fragmentary bottom plan view of a modified form of this invention and Fig. 11 a transverse section on line 11—11 of Fig. 10.

Referring to the drawings, one embodiment of this invention comprises a couch having a collapsible frame, a fabric cover and an expander connected to the frame, and means connected to the ends of the fabric cover for suspending the couch.

The frame of the couch shown comprises a pair of side bars 1 for forming the sides of the frame and two pairs of cross bars 2—2 adapted to form the ends of the frame, one

pair of cross bars being located at each end of the frame. For detachably connecting the side bars to the cross bars, each side bar is provided at each end with a substantially U-shaped bracket or cap 3 inclosing the end of the side bar, the side portions 4 of the bracket being bolted to the upper and lower sides respectively of the side bar by means of a bolt 5 which passes through apertures 6 provided therefor in the sides of the bracket.

Each bracket 3 is provided with oppositely curved substantially semi-circular projections 7 upon the opposite sides respectively of the bracket opening inwardly and outwardly longitudinally of the bar respectively, and which are adapted to engage in annular recesses 8 provided therefor in the cross bars. The annular recesses 8 are longer than the width of the projections 7 and each recess is provided with a pair of rings 9 loosely surrounding the cross bar and entirely filling the space resulting from the difference in width between the projection and the corresponding recess in the cross bar. Both of the rings 9 may be placed upon either side of the corresponding projection of the bracket or the rings may be divided and placed one upon each side of the projection, thus allowing for the adjustment of the side bars longitudinally of the cross bars for a distance equal to the combined widths of the rings in each recess.

The cover 10 of the couch is composed of canvas or any other suitable fabric or material and is preferably made from a single width of fabric, without cutting, by folding and stitching the fabric into the desired shape, thus the cover has a uniform strength throughout its full length. The side edges of the cover are folded longitudinally and stitched to form pockets 11 which are folded outwardly over the top surfaces and outer edges of the side bars and secured to the under surfaces of the side bars by means of staples 12 which extend through the pockets and into the bars, wire rods 13 being removably placed in the pockets and the staples being driven so as to embrace these rods.

In forming the pockets the edges of the cover are folded around the rods 13 and are then stitched against the under side of the cover, the folded portion of the edges being left wide enough to provide a double thickness of fabric around the outer edges of the

side bars and over the upper surfaces thereof as indicated at 14. The side edges of the ends of the cover are folded under as indicated at 15 and 16, and the edges are

5 stitched longitudinally to the ends of the cover as at 17 and 18 and the end edges of the cover are folded and stitched to form pockets 19 in which are secured spreaders 20.

The hammock is supported by the usual

10 clue cords 21 which are attached to the spreaders 20 in the usual manner and which radiate from rings 22 suspended by ropes or other well known or suitable means 23.

For holding the cross bars in place in the brackets of the side bars after the frame has been assembled, the ends of the cover are carried respectively over the upper cross bars and then downwardly between the cross bars and around under the lower cross bars and then upwardly toward their points of support as shown in Fig. 3 of the drawings. By this means the cross bars upon the upper side of the frame in the outwardly facing curved extensions of the bracket are pressed

25 inwardly by any tension upon the cover and the lower cross bars in the inwardly facing curved extensions of the bracket are pressed outwardly in the same manner and thus the cross bars are held firmly in their seats. It is apparent, however, that when the hammock is released from its supporting ropes and the cover is relieved of its longitudinal tension, the cross bars are readily removable from the brackets of the side bars and thus

35 the hammock frame may be easily and quickly taken apart whereupon the bars of the frame may be placed together and rolled up in the cover, making a compact package for transportation.

40 For conveniently adjusting the width of the hammock to take up any slackness in the cover, which may arise through the use of the hammock, the frame of the hammock is provided at each end with an expander.

45 This expander consists preferably of two flat bars 25 and 26, of metal or other suitable material, the outer ends of which are pivoted to the side bars by means of the bolts 5 which are also used to hold the brackets in place. The inner ends of these bars are provided with spaced holes 27 of uniform size, and the space between each pair of holes is preferably equal to the width of the one of the rings 9 carried by the cross bars

55 and the two bars of the expander are pivoted together by means of a bolt 28 extending through one of the holes 27 in the inner end of each bar. One bar of the expander is provided upon its inner edge with a recess 29 and the other bar of the expander is provided upon its inner end with a tongue 30 having its end 31 bent to engage in the said recess, the tongue 30 forming a stop to prevent the expander from collapsing out-

65 wardly. The expander may obviously be

collapsed by moving the inner ends of its bars longitudinally and inwardly of the couch and may be extended by a reverse movement.

When the couch is new, the rings of the cross bars are adjusted in the outer ends of their recesses so as to come outside the brackets when the frame of the couch is put together and the couch cover and the expander are so proportioned that the expander will be adjusted to its shortest length in which case the adjusting bolt or pivot 28 of the expander will be in the innermost hole of each bar of the expander as shown in Fig. 8. As the hammock is used and the fabric of the cover is stretched, one or more of the rings on the cross bar may be transferred from the outside to the inside of its bracket to permit of the extension of the sides of the frame of the couch and the expander may be adjusted by moving the bolt 28 one or more holes to increase the length of the expander accordingly to take up the slack of the cover.

If preferred, the couch may be inverted as shown in Fig. 9 without changing the construction of the couch in any manner and the cross bars of the frame will be held in position in their brackets in a manner similar to that already described. This figure also shows the use of a mattress 31 in connection with the couch, which rests between the sides and the ends of the frame and upon the cover.

In Figs. 10 and 11, is shown a bottom plan view and a transverse section respectively, of a modified form of this invention in which the cover, instead of being fastened to the side bars by means of staples is held in place by a lacing 32, which passes through eyelets 33 provided in the edges of the cover in the rear of the pockets 34 containing the rods 35, the pockets 34 being formed as heretofore described.

It is obvious that the expander may be omitted from this construction without injury to the couch, and that other changes in the details of the construction of the couch might be made without departing from the spirit of this invention, or the scope of the appended claims.

Having thus described my invention, I claim and desire to protect by Letters Patent of the United States:

1. In a couch, the combination with a pair of side bars, of a transverse bar for holding said bars in spaced relationship, means for detachably connecting said transverse bar to said side bars respectively, and means to suspend said couch, said latter means engaging said transverse bar to hold the same in position with respect to said side bars.

2. In a couch, the combination with a pair of side bars, of a transverse bar, means for

detachably connecting said transverse bar to the undersides of said side bars, and means for suspending said couch, said latter means acting to hold said transverse bar in place with respect to said side bars.

3. In a couch, the combination with a pair of side bars, of a transverse bar, means for detachably connecting said transverse bar to said side bars and for holding said side bars detachably in fixed position longitudinally of said transverse bar, and means for suspending said couch, said latter means acting to hold said side bars and said transverse bar in fixed relationship.

4. In a couch, the combination with a pair of side bars, of a pair of transverse bars, means for holding said transverse bars detachably between said side bars, and means for suspending said couch acting in substantially opposite directions upon said transverse bars to hold said transverse bars and said side bars together.

5. In a couch, the combination with a pair of side bars, of a pair of transverse bars, means upon said side bars for detachably holding said transverse bars, and a fabric cover for said couch extending between said side bars and between said transverse bars for suspending said couch and for holding said side bars and said transverse bars together.

6. In a suspension couch, the combination with a pair of side bars, of a pair of transverse bars, brackets upon the ends of said side bars for detachably holding said transverse bars upon opposite sides respectively of said side bars and a fabric cover between said side bars and passing upon opposite sides of said transverse bars for suspending said couch and for holding said side bars and said transverse bars detachably together.

7. In a suspension couch, the combination with a pair of side bars, of a pair of transverse bars, a bracket upon the end of each of said side bars, each bracket having an inwardly and an outwardly facing recess for detachably holding said transverse bars against movement longitudinally of said side bars in opposite directions respectively, and a fabric cover between said side bars and extending upon opposite sides of said transverse bars for supporting said couch and for holding said side bars and said transverse bars together.

8. In a suspension couch, the combination with a side bar, of a bracket secured to the end of said bar, and having curved projections upon opposite sides thereof respectively, said projections facing in opposite directions respectively longitudinally of said side bar for the reception of transverse bars.

9. In a suspension couch, the combination with a side bar, of a bracket secured to and embracing the ends of said bar, and having curved projections upon opposite sides there-

of respectively, said projections facing in opposite directions respectively longitudinally of said side bar.

10. In a couch, the combination with a side bar, of means forming a pair of oppositely facing recesses for the reception of cross bars.

11. In a couch, the combination with a frame comprising longitudinal and transverse bars, of a cover for said frame, holding said bars detachably together.

12. In a couch, the combination with a frame comprising side bars and detachable transverse bars, of a cover secured to said side bars, means connected to said cover for suspending the couch, and cooperating with said cover whereby the suspension of said couch will hold said bars together.

13. In a couch, the combination with a frame comprising side bars and detachable transverse bars, of a cover secured to said side bars and having the side edges of its ends folded to decrease the width of said cover, the ends of said cover extending beyond the ends of said side bars for suspending the couch, and means cooperating with said cover for holding said transverse bars in position.

14. In a couch, the combination with a frame comprising side bars and transverse bars, of a cover secured to said side bars, and having its ends folded to reduce the width of said ends, and means connected to said folded ends for supporting said couch.

15. In a couch, the combination with a frame comprising side bars and transverse bars, of a cover secured to said transverse bars, the ends of said cover being folded to reduce the width thereof, and the end edges of said cover being folded and stitched to form pockets, stretchers in said pockets, and means connected to said stretchers for supporting said couch.

16. In a couch, a frame comprising the combination with a pair of side bars, of a transverse bar having spaced recesses, means engaging in said recesses for holding said bars together, and means in each of said recesses and slidably longitudinally of said transverse bar for adjusting the width of said frame.

17. In a couch, a frame comprising a pair of side bars, a transverse bar having spaced annular recesses therein, brackets upon the ends of said side bars engaging in said recesses, and rings mounted upon said transverse bar in said recesses to adjust the width of said frame.

18. In a couch, a frame comprising the combination with a pair of side bars, of a transverse bar having spaced recesses, means engaging in said recesses for holding said bars together, means in each of said recesses and slidably longitudinally of said transverse bar for adjusting the width of said

frame, and an expander between said transverse bars.

19. In a couch, a frame comprising the combination with a pair of side bars, of a transverse bar having spaced recesses, means engaging in said recesses for holding said bars together, means in each of said recesses and slidably longitudinally of said transverse bar for adjusting the width of said frame, and an expander between said transverse bars, said expander comprising two relatively movable bars, and means for adjusting the effective length of said bars.

20. In a couch, a frame comprising the combination with a pair of side bars, of a transverse bar having spaced recesses, means engaging in said recesses for holding said bars together, rings in each of said recesses and slidably longitudinally of said transverse bar for adjusting the width of said frame, and an expander between said transverse bars, said expander comprising two relatively movable bars, and means for adjusting the effective length of said bars to correspond to the various widths of said frame as determined by the number and widths of said rings.

21. In a couch, the combination with a pair of side bars, of an expander collapsible laterally of itself between said bars, and means independent of said expander to hold said bars in fixed spaced relationship.

22. In a couch, the combination with a pair of side bars, of an expander between said bars, said expander comprising a pair of bars pivotally secured at their outer ends respectively to said side bars, and pivoted together adjacent their inner ends, and means independent of said expander to hold said bars in fixed spaced relationship.

23. In a couch, the combination with a pair of side bars, of an expander between said bars, said expander comprising a pair of transverse bars pivotally secured at their outer ends respectively to said side bars and pivoted together adjacent their inner ends, and means for adjusting the effective length of the said expander.

24. In a couch, the combination with a pair of side bars, of a laterally collapsible expander between said bars, said expander comprising a pair of transverse bars pivotally secured at their outer ends respectively to said bars, and pivoted together adjacent their inner ends, and means to hold the expander from collapsing in one direction laterally, and means independent of said expander to hold said bars in fixed spaced relationship.

25. In a couch, the combination with a frame comprising detachable bars of means for suspending the couch, and means cooperating with the suspending means to hold said bars together.

26. In a couch, a frame comprising a side

bar, a transverse bar having an annular recess and means engaging in said recess and adjustable transversely of said frame for holding said bars together.

27. In a couch, the combination with a side bar, of a transverse bar, means for detachably connecting said bars, and means for suspending said couch, said latter means acting to hold said bars connected.

28. In a couch, the combination with a pair of side bars, of a cover connected to said bars, a transverse bar at each end of the couch, detachably connected to said side bars, and means for suspending said couch connected to each end of said cover, said cover acting to hold said transverse bars in place with respect to said side bars.

29. In a couch, the combination with a side bar, of means connected to said side bar and forming a pair of oppositely facing recesses, a transverse bar in each of said recesses, and a cover attached to said side bar, and extending upon opposite sides respectively of said transverse bars to hold said transverse bars in position.

30. In a couch, the combination with a pair of side bars, of an expander between said bars, and means independent of said expander for holding said bars in spaced relationship.

31. In a couch, the combination with a plurality of separable bars, of a cover for said couch, and means for suspending said couch, said latter means acting to hold said bars together.

32. In a couch, the combination with a plurality of separable bars, of a cover for said couch, and means for suspending said couch, said latter means acting to hold said bars together, said couch being invertible whereby either side of the couch may be used as the upper side.

33. A couch comprising side bars, and a cover stretched substantially flat between said side bars, one side of said couch having a recess between said side bars and bounded upon one side by said cover for the reception of a mattress.

34. A couch comprising side bars, and a cover stretched substantially flat between said side bars, said cover being substantially flush with the edges of said bars upon one side of said couch, and the other side of said couch having a recess between said side bars and bounded upon one side by said cover for the reception of a mattress, said couch being invertible, to be used either with or without the mattress.

35. In a couch, the combination with a plurality of separable bars, of a cover for said couch, means attached to said cover for suspending said couch, said latter means acting to hold said bars together, and a mattress supported by said cover.

36. In a couch, a frame comprising a pair

of side bars, a transverse bar between said side bars and a ring upon said transverse bar for adjusting the width of said frame.

37. In a couch, the combination with a plurality of separable bars, of a cover for said couch, and means attached to said cover for suspending said couch and for holding said bars together, said couch being invertible whereby either side of the couch may be used as the upper side, and one side of said couch being provided with a recess for the reception of a mattress.

38. In a couch, a frame comprising a pair of side bars, a transverse bar between said side bars, means carried by said transverse bar for adjusting the width of said frame, and an expander between said side bars.

39. In a couch, the combination with a pair of side bars, of a transverse bar detachably connected to said side bars for holding said side bars in spaced relationship and means for suspending said couch, said means acting to hold said bars together when said couch is suspended.

40. In a couch, the combination with a pair of bars extending longitudinally thereof, of a transverse bar separably connected to said longitudinal bars to hold said longitudinal bars in spaced relationship, and a cover for said couch, between said longitudinal bars, and acting to hold said transverse bar in fixed position with respect to said longitudinal bar when said couch is suspended.

41. In a couch, the combination with a plurality of separable bars, of a cover for said couch, means connected to said cover for suspending said couch and for holding said bars together, one side of said couch being provided with a recess, and a substantially flat mattress in said recess.

In witness whereof I have hereunto set my hand this tenth day of August, A. D. 1908.

HERMAN L. HOHLFELD.

Witnesses:

JOHN B. RUTHERFORD,
ALSTON B. MOULTON.