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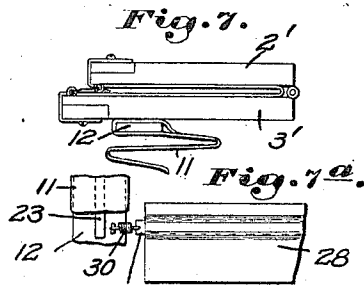
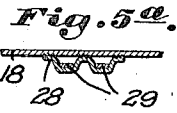
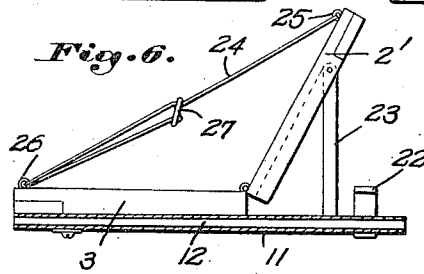
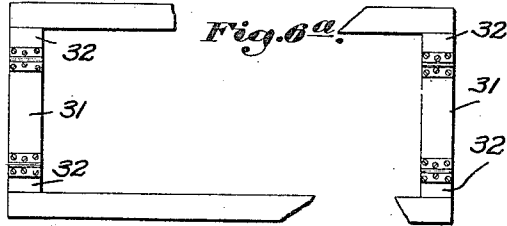
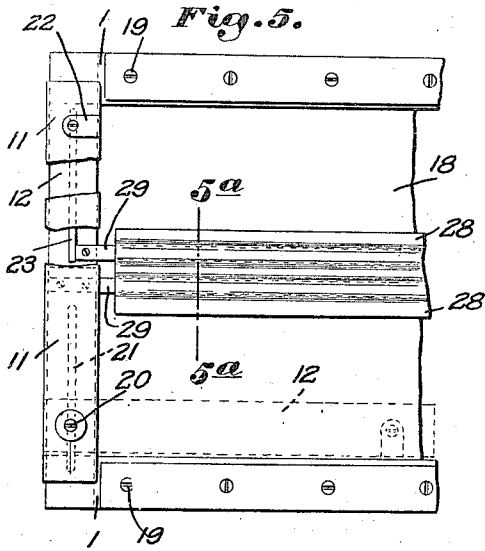
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 ADJUSTABLE COUCH HAMMOCK.
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972,711.

Patented Oct. 11, 1910.

2 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

ISAAC E. PALMER, OF MIDDLETOWN, CONNECTICUT, ASSIGNOR TO THE I. E. PALMER CO., OF MIDDLETOWN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

ADJUSTABLE COUCH-HAMMOCK.

972,711.

Specification of Letters Patent. Patented Oct. 11, 1910.

Application filed March 7, 1910. Serial No. 547,637.

To all whom it may concern:

Be it known that I, ISAAC E. PALMER, a citizen of the United States, and a resident of Middletown, in the county of Middlesex and State of Connecticut, have invented an Improvement in Adjustable Couch-Hammocks, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to adjustable couch hammocks or other suspended structures, though certain features of my invention are not limited to suspended structures.

In order that the principle of the invention may readily be understood, I have disclosed certain embodiments thereof in the accompanying drawings, wherein—

Figure 1 is a plan view of a frame constituting a portion of a couch hammock embodying my invention; Fig. 2 is an end elevation of a frame and means for adjusting a longitudinal portion thereof, the hammock body being omitted for clearness; Fig. 3 is an end elevation of a couch hammock and illustrates other means for adjusting the frame thereof; Fig. 4 is a detail in end elevation of a portion of a couch hammock embodying my invention; Fig. 5 is an underneath plan view of a portion of a couch hammock embodying my invention; Fig. 5^a is a transverse section upon the broken line 5^a—5^a of Fig. 5; Fig. 6 is a detail in side elevation representing other means for adjusting the frame of the hammock; Fig. 6^a is a plan view of a modified form of the frame shown in Fig. 1; Fig. 7 is an end elevation representing the couch hammock in collapsed or compacted position; Fig. 7^a is a detail representing a slight modification of a feature of my invention.

The couch hammock or other structure is composed of an adjustable frame and a hammock body. The couch hammock may be of any suitable type. Herein I have represented it as of the type having separate suspension ends of any suitable character directly attached to the frame of the hammock. Within the scope of my invention, however, any suitable type of couch hammock may be utilized, as for example the

Gloucester type or other type having unitary or integral body and suspension ends.

In Fig. 1, I have represented the frame as composed of side members 1—1 and end members composed of hinged portions 2—3, 2—3, respectively connected to the side members 1 in any suitable manner, and if desired, in such manner as to provide a knock-down construction. The portions 2—3 of the end members are represented as jointed to each other by hinges 4, but any suitable adjustable connection may be employed. The frame is provided with a suitable seating which may be cloth, wire or rope or other suitable material. Herein, I have represented a wire seating 5 having side and end springs connecting the same to the frame.

As previously stated, the frame may be used in connection with any suitable type of hammock body, and when applied thereto is adapted to occupy a flat position as an entirety or to have a portion of the frame elevated with respect to the remainder so as to provide a back rest, guard, shield or the like.

Any suitable means may be provided to adjust the frame in the manner described; that is, elevate one portion of the frame with respect to the remainder. In Fig. 2, wherefrom, for the sake of clearness, I have omitted the hammock body, the portions 2' of the end members are represented as inclined to provide a back rest or the like and the portions 3' as in flat position to provide a seat. While any suitable supporting means may be employed, I have here represented three ropes 6, 7 and 8, the rope 6 being connected to the forward edge of the horizontal portion 3' and preferably at a corner thereof, the rope 7 as connected to the member 3' adjacent the point where it is hinged to the portion 2' and the rope 8 as having a sliding engagement with the outer edge or corner of the portion 2' and as provided with a clamp 9 permitting any desired angular adjustment of the inclined portion of the frame. If desired, the rope 7 may be provided with an eye 10 as shown, to facilitate adjustment of the portion 2'. In this form of my invention, it will be observed that the portion 3' of the frame is supported

at both back and front by the ropes 6 and 7, so that a stable seat or suspended couch is provided. These several ropes may be arranged inside or outside of the suspension ends of the hammock. The adjustable portion of the frame may be of any suitable width and indeed in certain embodiments of my invention may be of less length than the frame, which to that end may be provided with a series of adjustable portions extending longitudinally thereof, and which may be adjusted independently of each other.

In Fig. 3, I have represented different means for supporting a portion of the frame in inclined position. In said figure, a suspension end of the hammock body is represented at 11, it being here shown as attached at its lower edge or bottom to a transverse supporting strip 12 and at its upper end as provided with a spreader 13 and clue cords 14. The adjustable frame itself is supported upon the transverse strips 12 and is provided with hinged portions 2', 3'. The former is provided at opposite ends with cords 15 having hooks 16 to engage the spreader 13 at any point longitudinally thereof, thus providing for any desired angular adjustment. In lieu of the cords 15 and hooks 16 or in conjunction therewith, I may employ braces, such as represented at 17, here shown as pivoted to the adjustable portion 2' of the frame and bearing upon the transverse strip 12 and of any suitable length. If desired, the strips 12 may be provided with recesses or projections to hold the lower ends of the braces in any desired adjusted position. The strips 12 may, of course, be embodied in hammocks having a body portion connecting the suspension ends, as, for example, in the Gloucester type.

The adjustable frame may be provided with a mattress 12' which is in Fig. 3 shown as divided longitudinally to facilitate the folding of the same in accordance with the adjustment of the frame. If desired and as shown the portions of the mattress may be attached along the upper face thereof as by providing an integral cover. It is evident that any suitable mattress or upholstery may be applied to the frame.

It will be apparent that the portion of the frame folded into upright or inclined position comprises hinged portions of the end members and one of the side members 1 together with a portion of the seating. The frame may be of any suitable width with respect to the hammock body. In Fig. 4, I have represented the frame as of slightly greater width than the suspension ends 11 and the transverse strip 12, by which the same are attached to the frame but as of substantially the width of said ends. In other words, the suspension ends of the hammock, whether formed of textile strips or of transversely spaced ropes, chains or the like

are in effect of substantially the full width of the frame. While I have represented the adjustable member of the frame as hinged to the remainder, it will be understood that it may be adjustably connected thereto in any suitable manner and indeed that the entire adjustable frame may be a supplemental or auxiliary frame overlying the usual or other frame of the hammock.

In that type of my invention wherein hammock suspension ends are directly attached to the frame and the hammock body is not continuous from end to end but the couch hammock comprises merely the said suspension ends and the frame together with its seating, and indeed in certain other types of couch hammocks, I may provide means permitting transverse adjustment of the frame with respect to said suspension ends or the hammock body to maintain the equilibrium or balance of the hammock when a portion thereof is elevated with respect to the remainder, as well as a collapsing or compacting adjustment of the said suspension ends and their supporting strips with respect to the frame. This may be accomplished in any suitable manner.

In Fig. 5, I have represented the under side of a frame which is of the folding type represented in Fig. 1, but is here shown as provided with a cloth seating 18, the opposite edges whereof are passed about and secured to the under side of the side members 1 by means of screws 19. The cloth seating may terminate at the point shown or may extend substantially to the ends of the frame. The suspension ends 11 are provided with end pockets within which are received the transverse strips 12. Each strip 12 underlies a hinged member of the frame and is preferably attached thereto in any suitable manner, but preferably at only a single point, as for example, by means of a single bolt or screw 20, thus permitting the said supporting strips 12 to be swung into the dotted line position indicated in said figure, and bringing it into substantial parallelism with the side members of the frame. This permits the frame to be compacted for shipment or storage, as the portions 2', 3' of the frame may then be folded upon each other, the strips 12 occupying the position shown in Fig. 7, the attached suspension ends being also gathered beneath one of the folded portions of the frame.

When a portion of the frame is elevated to provide a back rest, guard or the like, it is desirable at times to adjust the frame transversely with respect to the suspension ends of whatever type employed, so as to bring that portion of the frame which remains flat, nearer the center of support of the couch hammock and thus avoid undue weight nearer one side thereof. This preserves the equilibrium or lateral balance of

the hammock when the back is elevated. It is apparent that any suitable hammock balancing provisions may be employed to preserve the lateral balance or equilibrium of the hammock both when the back rest is in use and when it is positioned flatwise of the frame. Preferably, however, I provide means for laterally adjusting the frame and the suspension ends. For this purpose, I have represented the supporting strips 12 as provided with longitudinal slits 21 within which are received the screws or bolts 20, and permitting the described transverse adjustment. It will thus be apparent that the transverse strips may be slid longitudinally with respect to the frame and also swung upon the screws or bolts 20. If desired, I may provide said strips 12 with a suitable catch, stop, hook or other device to prevent undue swinging movements of said strips. For that purpose, I have herein represented said strips as provided with hooks 22 upon their lower faces, and which may engage the inner faces of the end members of the frame. Any other suitable means providing for transverse adjustment of the frame may be employed. In Fig. 5, I have also represented one of the hinged members of the frame as having inset therein and pivoted thereto a brace 23 to support or assist in supporting a portion of the frame in inclined position as represented in Fig. 6.

As shown in Figs. 5 and 6, the frame is of slightly greater width than the suspension ends, but it may be of any suitable width with respect thereto. In the several figures, I have shown the frame as not materially or substantially exceeding in width the suspension ends.

In Fig. 6, I have shown an additional or, and preferably, an alternative or substitute means for supporting a portion of the frame in inclined position, said frame consisting of a brace or braces which may be in the form of cords 24, one end of each whereof is secured to the inclined adjustable member of the frame at 25 and the other passing through an eye 26 and thence to a clamp 27 engaging the body of the cord and by which any desired adjustment may be effected. Each end of the frame is preferably provided with the described cord. Any other suitable form or structure of brace may be provided preferably at both ends of the frame, whether or not it be intended to adjust the back at varying heights or inclinations.

It is, of course, evident that the hammock suspension ends may be of any suitable character. Particularly in that form of my invention where some suitable form of brace 24 is employed and the back is not directly connected to the suspension ends for support or adjustment, I may employ any sus-

pension means or ends, such as upright but transversely spaced strands, ropes or the like. The effective width of such an end would be the space between the outermost suspension strands and which would be spaced substantially the full width of the frame, as already described.

It will be observed that in the several forms of my invention the supporting connections for the back rest member, whether in the form of braces 24 or of braces 23, or 17, or of cords 15, or of ropes 8, or in the form of other supporting connections, extend above the frame of the hammock. That is to say, the space below the bottom of the frame or horizontal portion of the hammock is substantially free of supporting connections which would exist if a davenport, cot, lounge, or the like having an adjustable back and legs and intended for use upon the floor, were suspended from some overhead support.

It will be observed that in the form of the invention shown in Fig. 5, a seating is provided as is preferably done in the several forms of the invention, the seating being of any suitable type. In order that when the frame is folded to provide an upstanding back rest, guard or the like, the seating may conform to the selected angular adjustment of the frame, I may provide means connecting the seating to the hinged members of the frame at points between the side members thereof, such means preferably being such as not to present obstructions to the body in using the hammock and being preferably loose or yielding. This result may be accomplished in any suitable manner. In Fig. 5, I have represented the under side of the seating as provided with two longitudinal pockets 28, 28 through which are passed suitable strips 29, 29, the ends whereof are secured to the respective hinged portions of the end members of the frame. The pockets 28—28 are made deep enough, as shown in Fig. 5^a, to permit said strips 29 to be positioned at a considerable distance below the upper face of the seating, and yet they compel the seating to follow the angular adjustment of the frame and prevent the general curving thereof from edge to edge of the seating. The strips 29 and which are preferably attached to the end face of the frame, may be of wood, metal or other suitable material, and as shown in Fig. 7^a they may be provided at their ends with springs 30 connecting them to the end members of the frame and permitting them to yield farther.

Instead of employing elongated pockets 28, I may provide a series of loops or other means for connecting the strips to the seating. I may as a substitute for said strips 29, employ strips or rods jointed together at different points along their lengths to permit the desired yielding and may provide

5 cords as a substitute therefor, particularly if the seating itself be made of cord or rope. In the latter case, the longitudinal cords may be reeved through the seating at suitable points or otherwise connected thereto.

10 I may, of course, wholly dispense with supplemental means connecting the seating and the frame to cause the seating to conform to the back of the frame when elevated, and rely merely upon the usual connections between the frame and the seating. This is particularly true of a wire seating, such as shown for example in Fig. 1.

15 If desired, and as shown in Fig. 6^a, the frame may be hinged along a plurality of longitudinal lines. In said figure, I have represented the end members as composed of a central portion 31 and end portions 32—32 hinged thereto and preferably of less length, but having if desired a combined length equal to that of the central portion 31. In this manner, the sides of the frame may be folded in upon the central portion thereof for shipment or storage. The said frame may be provided with any suitable seating and may be used in conjunction with a couch hammock or other suspended structure, if desired. Either hinged portion of the frame may be elevated to provide a back and be supported in any suitable manner.

20 Having thus described one illustrative embodiment of my invention, I desire it to be understood that although specific terms are employed, they are used in a generic and descriptive sense and not for purposes of limitation, the scope of the invention being set forth in the following claims.

Claims.

1. A couch hammock comprising in combination a frame having transverse end portions and longitudinally extending connecting means, end suspension means extending transversely of said frame at its ends, a back rest angularly positionable with respect to said frame and also positionable flatwise with respect thereto, said back rest having supporting connections with transversely extending portions of said hammock, said supporting connections extending above the bottom of the frame, so that the space below the frame is substantially unobstructed, and hammock balancing provisions constituting means for preserving the lateral balance or equilibrium of the hammock both when the back rest is angularly positioned and when it is positioned flatwise of the frame.

2. A couch hammock comprising in combination a frame having transverse end members and longitudinally connecting means, end suspension means at the ends of said frame extending transversely thereof and of substantially the full width of said frame, a back rest member extending longitudinally of said frame, and supporting connections extending above the said frame and

between the said end suspension means connecting the said back rest to transversely extending portions of the couch hammock.

3. A couch hammock comprising in combination suspension ends having transverse spreaders at their lower edges or bottom, a frame having side and end members, a portion of the end members of said frame being supported flatwise upon said transverse spreaders, and a portion of said end members being angularly adjustable with respect to said end spreaders, and a seating applied to said frame.

4. A couch hammock comprising in combination suspension ends having transverse spreaders at the bottom thereof, a frame connected to and supported upon said spreaders transversely of said ends, said frame having a longitudinally extending portion angularly adjustable with respect to the remainder thereof, and supporting connections between said angularly adjustable portion and transverse portions of said suspension ends.

5. A couch hammock comprising in combination suspension ends having transverse spreaders at the bottom thereof, a frame connected to and supported upon said spreaders transversely of said ends, said frame having a longitudinally extending portion angularly adjustable with respect to the remainder thereof, and adjustable supporting connections between said angularly adjustable portion and said transverse spreaders.

6. A couch hammock comprising in combination suspension ends having transverse spreaders at the bottom thereof, a frame connected to and supported upon said spreaders transversely of said ends, said frame having a longitudinally extending portion angularly adjustable with respect to the remainder thereof, and means wholly above the plane of said frame and between the lateral edges of said suspension ends to support said adjustable portion at an angle to said end spreaders.

7. A couch hammock comprising in combination a frame having transverse end portions and longitudinally extending connections, end suspension means extending transversely of said frame and of substantially the full width thereof, and a back rest angularly adjustable with respect to said frame and having supporting connections with transversely extending portions of said hammock, said supporting connections being wholly above the said frame and between the lateral edges of the end suspension means.

8. A couch hammock comprising in combination a frame having transverse end portions and longitudinally extending connecting means, end suspension means extending transversely of said frame at its ends, a back rest angularly positionable with respect

to said frame and having supporting connections with transversely extending portions of said hammock, said supporting connections being substantially above the bottom
5 of the frame, so that the space below the frame is substantially unobstructed, said back rest being adapted to be folded down into substantially the plane of the frame, the frame and back rest when flat not sub-
10 stantially exceeding the full effective width of said suspension ends.

9. A couch hammock comprising in combination a frame having transverse end portions and longitudinally extending connections, end suspension means extending trans-
15 versely of said frame and of substantially the full width thereof, a back rest angularly adjustable with respect to said frame and having supporting connections with trans-
20 versely extending portions of the hammock, and means whereby the equilibrium or balance of the couch hammock is maintained when the back rest is elevated.

10. A couch hammock comprising in combination suspension ends having transverse
25 spreaders at the bottom thereof, a frame connected to and supported upon said spreaders, said frame having a longitudinally extending back rest angularly adjustable with re-
30 spect to the remainder thereof, said frame being transversely adjustable with respect to said spreaders and suspension ends, thereby to maintain the equilibrium of the couch hammock and to position the back rest.

11. A couch hammock comprising in combination suspension ends having transverse
35 spreaders at the bottom thereof, a frame connected to and supported upon said spreaders and having a hinged, longitudinally extending portion thereof adapted to be elevated
40 as a back rest, a seating secured to said frame and back rest portion thereof, and means extending longitudinally of the frame and adjacent the base of the back rest portion to position the seating when the back
45 rest is elevated.

12. A couch hammock comprising in combination suspension ends having transverse
50 frame supporting strips, and a frame composed of side and end members, and means for pivotally connecting said strips and frame to permit said strips to be angularly adjusted with respect to the frame.

13. A couch hammock comprising in combination suspension ends having transverse
55 frame supporting strips, and a frame supported flatwise upon and connected to said strips and having side and end members, said supporting strips being movable flat-
60 wise into substantial alinement with said side members without disconnecting them from the frame.

14. A couch hammock comprising in combination suspension ends having transverse,
65 frame supporting strips, and a frame com-

posed of side members and hinged end members, the latter being supported upon and attached to said strips, and said strips being
movable into longitudinal position beneath
said frame.

15. A couch hammock comprising a fold-
ing frame and suspension ends therefor hav-
ing transverse supporting strips to which
the frame is connected, said strips being ad-
justable flatwise with respect to the frame
75 while connected thereto, to permit compacting of the frame and strips.

16. A couch or seat comprising in combination a frame having side and end members,
suspension ends, transverse frame support-
80 ing strips sustained by said suspension ends adjacent the ends of the frame, said supporting strips being connected to the frame and movable into general alinement with
85 said side members of the frame without disconnecting them from the frame.

17. A couch or seat comprising in combination a frame composed of side members and hinged end members connected thereto,
transverse frame supporting strips adjacent
90 the ends of the frame and attached thereto, said strips being movable into longitudinal position beneath the frame.

18. A couch hammock comprising in combination suspension ends having transverse
95 spreaders at the bottom thereof, a frame supported upon said spreaders, said frame having a longitudinally extending back rest angularly adjustable with respect to the remainder thereof, said frame being trans-
100 versely adjustable with respect to said suspension ends, thereby to position the back rest transversely of said suspension ends.

19. A couch hammock comprising in combination suspension ends having transverse
105 spreaders at the bottom thereof a frame positioned flatwise upon said spreaders transversely of said ends, said frame having a longitudinally extending portion angularly adjustable with respect to the remainder
110 thereof, and one or more braces between said angularly adjustable portion and transversely extending portions of the couch hammock.

20. A couch hammock comprising in combination suspension ends having transverse
115 spreaders at their bottom, a frame positioned substantially flatwise upon said spreaders transversely of said ends, said frame having a longitudinally extending portion angularly
120 positioned with respect to the substantially flat portion thereof and with respect to the portion of the said spreaders upon which said flat portion is positioned and supporting means engaging said angularly posi-
125 tioned portion.

21. A couch hammock comprising in combination suspension ends, a frame supported
thereby, said frame being composed of side
and end members connected together at
130

their meeting ends, a flexible seating in substantially the plane of said members and connected thereto at the sides and ends, a portion of said end members and the side member connected thereto together with the adjacent portion of said seating being positionable at an upward angle to the remainder of the frame to serve as a back rest, and supporting means to support said back rest in position, said supporting means being substantially above the bottom of said frame, whereby a substantially clear and unobstructed space is left beneath the hammock.

22. A couch hammock comprising in combination suspension ends, a frame supported thereby, said frame being composed of side and end members connected together at their meeting ends, a flexible seating in substantially the plane of said members and connected thereto at the sides and ends, a portion of said end members and the side member connected thereto together with the adjacent portion of said seating being positionable at an upward angle to the remainder of the frame to serve as a back rest, supporting means to support said back rest in position, and hammock balancing provisions constituting means for maintaining the lateral balance of the hammock when the back rest is positioned at an upward angle.

23. A couch hammock comprising in combination suspension ends, a frame supported thereby, said frame being composed of side and end members connected together at their meeting ends, a flexible seating in substantially the plane of said members and connected thereto at its sides and ends, a portion of said end members and the side member connected thereto, together with the adjacent portion of said seating, being positionable at an upward angle to the remainder of the frame to serve as a back rest, said frame and back rest when the latter is positioned as described not substantially exceeding in width the effective width of said suspension ends.

24. A laterally balanced couch hammock comprising in combination a frame, suspension ends supporting said frame and ranging transversely thereof at its ends, a back rest adapted to upstand from said frame or to lie flatwise therewith, said frame and back rest both when the latter is upstanding and when it is flatwise not together substantially exceeding in width the effective width of the said suspension ends, whereby a laterally balanced couch hammock is obtained.

25. A laterally balanced couch hammock comprising in combination a frame, suspension ends supporting said frame and ranging transversely thereof at its ends, a back rest adapted to upstand from said frame or to lie flatwise therewith, said combined back rest and frame in both positions of the former, being positionable symmetrically, transversely of and with respect to said ends, whereby a laterally balanced couch hammock is obtained.

26. A couch hammock comprising in combination a frame, transversely extending, flexible suspension ends therefor, a back rest positionable either substantially flatwise or upstanding with respect to said frame, the front edge of said frame in either position of said back rest being adjacent the plane of the front edges of the said suspension ends, supporting connections for said back rest when upstanding, said connections having a supporting engagement with the back rest between the suspension ends and extending between said suspension ends to a supporting engagement with the hammock, said supporting connections being substantially above the bottom of the frame so as to leave a substantially clear space therebeneath.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ISAAC E. PALMER.

Witnesses:

F. E. FOWLER,
C. M. SAUER.