I. E. PALMER.

FRAMED HAMMOCK.

APPLICATION FILED JAN. 21, 1909.

980,165.

Patented Dec. 27, 1910.

2 SHEETS—SHEET 1

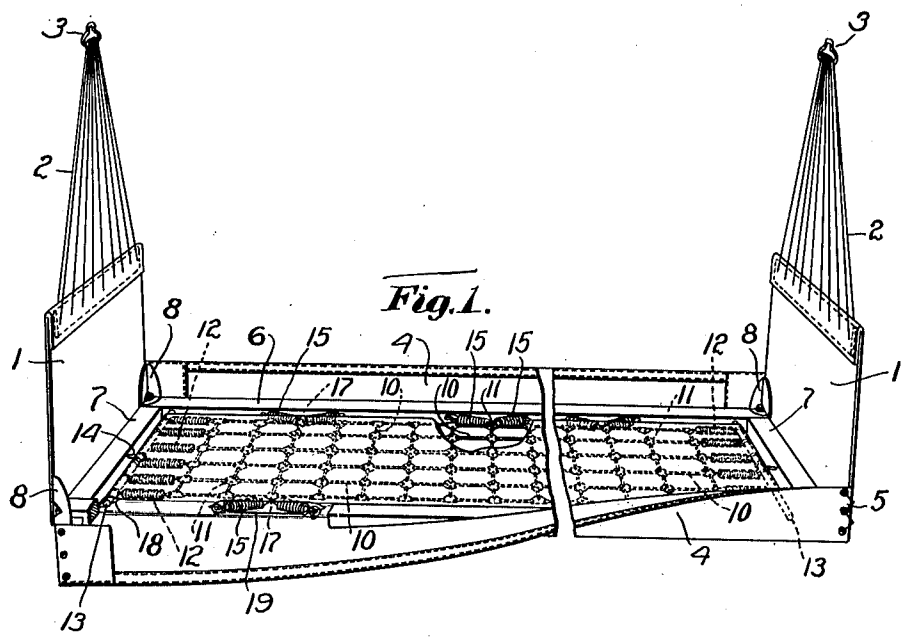

Fig. 1.

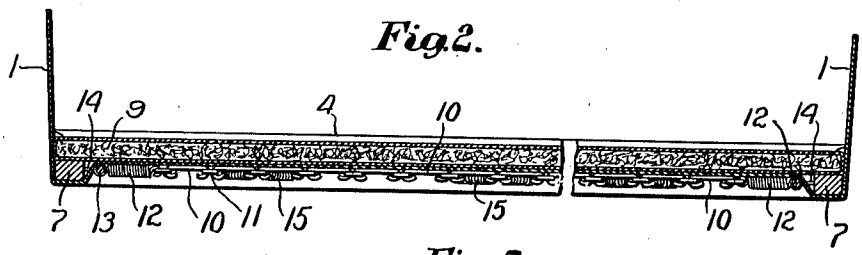

Fig. 2.

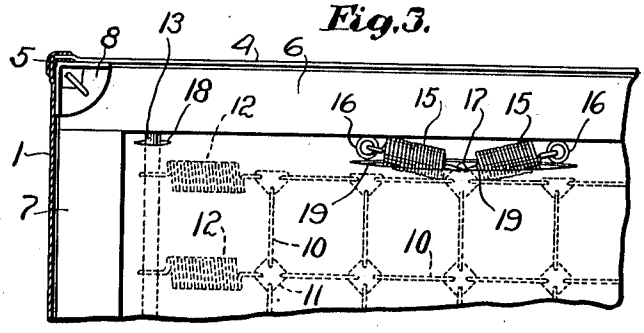

Fig. 3.

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2 SHEETS—SHEET 2.

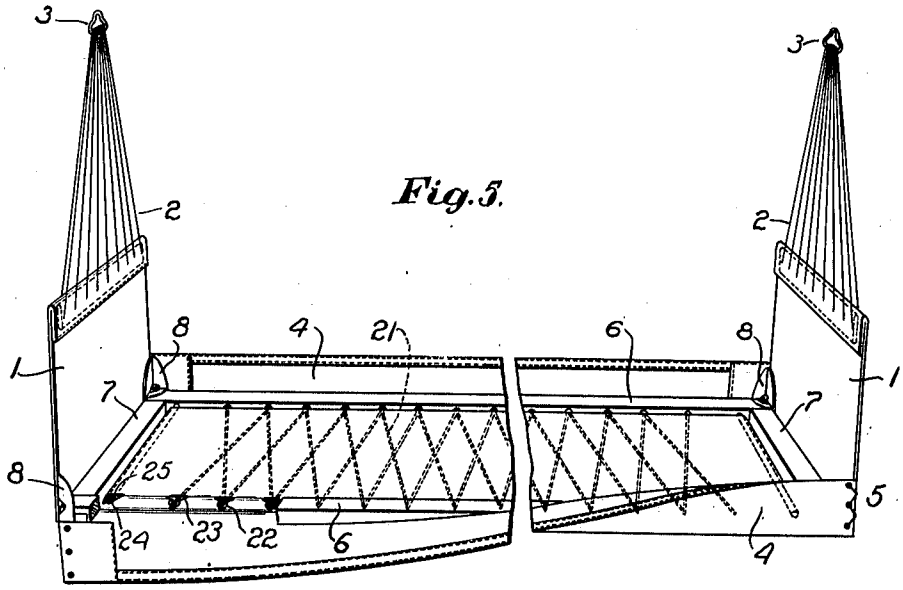

Fig. 3.

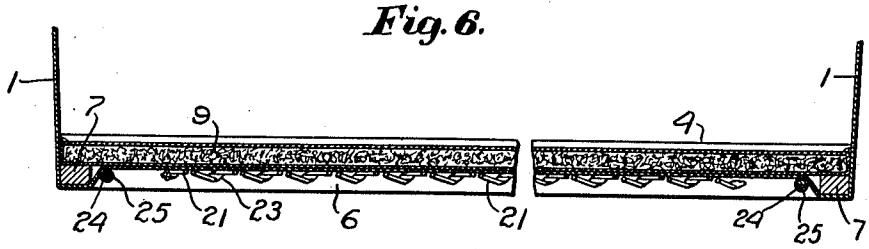

Fig. 6.

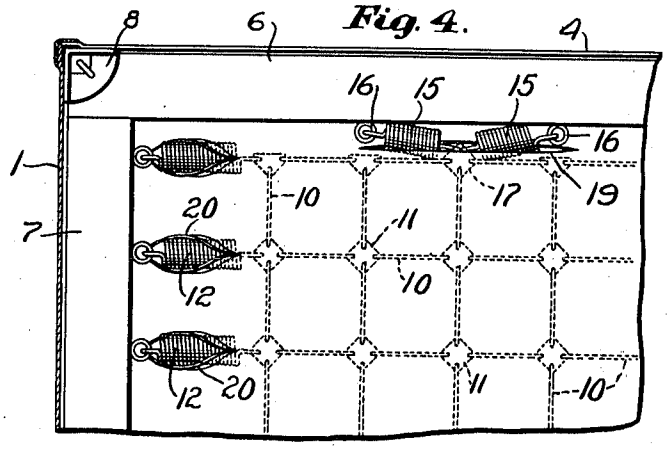

Fig. 4.

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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.

FRAMED HAMMOCK.

980,165. Specification of Letters Patent. Patented Dec. 27, 1910.

Application filed January 21, 1909. Serial No. 473,457.

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 Framed 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 framed hammocks and more particularly to that type of framed hammock intended for use as a suspension couch.

In order that the principles of my invention may be readily understood, I have disclosed an embodiment thereof in the accompanying drawings, wherein—

Figure 1 is a perspective view of a framed couch hammock embodying my invention; Fig. 2 is a longitudinal vertical section of the framed hammock shown in Fig. 1; Fig. 3 is a view similar to Fig. 2, but representing a slightly modified construction; Fig. 4 is a view similar to Fig. 3, but representing a slightly modified construction; Fig. 5 is a view similar to Fig. 1, but representing a cord seating; and Fig. 6 is a vertical longitudinal section of the construction shown in Fig. 5.

This invention relates more particularly to that type of framed hammock wherein a frame comprising longitudinal and transverse end members is supported upon the upper surface of the body of the hammock.

In accordance with my invention, the frame is of skeleton formation and is preferably provided with a suitable seating, preferably flexible and preferably composed either of wire links and springs or cords. Were the frame with its seating merely superposed upon the upper face of the hammock body, it is apparent that when a mattress is placed upon the frame, either the mattress must become depressed or sagged out of a horizontal plane before it contacts with the seating, or that the seating must sag before it contacts with the upper face of the hammock body. In either event, the mattress, if it be used, must sag before it can receive the support both of the seating and of the hammock body.

In accordance with one feature of my invention, I superpose the hammock body upon the seating so that if a mattress be used, it is directly received upon the hammock body. Moreover the hammock body may thus be supported at substantially the level of the upper face of the frame and so support the mattress in such position. This result is accomplished in the present embodiment of my invention by piercing the hammock body at one or more points for the passage of a portion or portions of the seating, so that although the hammock body passes below the side and end members of the frame, it passes above and is supported upon the seating. Moreover in this manner, if a mattress be used, it is protected from the wear of the seating and an additional covering is provided for the seating, thus providing for the use of a thinner mattress.

Referring more particularly to the drawings, the hammock body is represented at 1, and in this embodiment of my invention is provided with suspension end portions preferably provided with transverse pockets or hems, wherein are secured spreaders. Any suitable suspension means or suspension end portions may be provided and which may be integral or not with the body portion as desired. Clue cords 2 are passed through the pockets and spreaders and are preferably individually connected to eyes 3, which may be suspended in any suitable manner.

The lateral dimensions of the hammock body are preferably such as to provide flaps 4 which may be secured in an upstanding position, as indicated, by means of lacing 5 or in any other suitable manner. If desired, however, such upstanding sides may be omitted.

The hammock frame is herein represented as composed of longitudinal or side members 6 and transverse end members 7 connected together in any suitable manner, the frame preferably being flat when positioned in the hammock. It is apparent, however, that the frame may be of any suitable form and construction. Preferably and more particularly when a mattress is used, I provide corner guards or mattress positioning members 8 which are preferably removably secured to the corners of the frame in such manner as readily to permit their detachment from the frame and the inversion of

the frame if the latter becomes sprung or bent in use and the subsequent application of said guards to the then upper side of the frame. Preferably a mattress 9 is supported upon the frame, it being in this embodiment of the invention protected at the corners by the guards 8 which also serve as means against which the sides or corners of the hammock body may be tightened or fitted, as disclosed in my Patent No. 944,814.

The frame herein illustrated is of skeleton formation and is provided with a flexible seating which may be of any suitable type, but preferably either wire links or cords, both types of seating being herein illustrated. It is to be understood, however, that any suitable flexible seating may be employed.

In Figs. 1, 2 and 3, I have represented a flexible seating composed of longitudinally and transversely arranged links 10 hooked at their ends into perforated plates or eyes 11. Said seating is connected in any suitable manner at its ends to the frame, but preferably by any suitable number of coiled springs 12 which may be directly connected to the end members of the frame or otherwise. In Figs. 1 and 2, I have represented said coiled springs 12 as connected at their outer ends to cross bars 13 mounted in the side members of the frame, said cross bars being preferably metallic and of sufficient diameter to sustain the end strain to which the seating is subjected in use. If desired, the cross bars may be braced intermediate their ends, as for example by eyes 14 screwed into the end members 7 and receiving the said cross bars.

Preferably the seating is laterally connected to the longitudinal members 6—6 of the frame in a yielding manner. I sometimes desire yieldingly to secure the lateral edges of the seating close to the said longitudinal members. One manner of accomplishing this result is clearly illustrated in Figs. 1 and 3, where springs 15 are arranged in pairs and are inclined as slightly as possible, being connected at their outer ends to the screw eyes 16 and at their inner ends to a perforated plate 17. It will be observed, viewing Fig. 2, that the distance between the lateral edge of the seating and the inner edge of the adjacent longitudinal member of the frame closely approximates or but slightly exceeds that of the diameter of the coiled springs 15. In this manner, the edge of the seating is brought close to the inner edge of the longitudinal members of the frame, but at the same time is yieldingly supported at these points. The result may be accomplished otherwise, as by providing preferably inclined springs connected to the inner edges of the longitudinal members at one end and to certain of the inner longitudinal rows of the plates 17. In such case the springs may be arranged in pairs after the manner indicated in Fig. 3, or they may be suitably spaced and each connected to a separate plate 17 and inclined toward each other if desired.

In order that the body of the hammock may overlie the seating, in the embodiment of the invention illustrated by Figs. 1, 2 and 3, the hammock body is longitudinally slitted at opposite edges, as indicated at 18, for the passage of the cross rods 13, and is also longitudinally slitted as indicated at 19 for the passage of the lateral supports or springs 15. If the intermediate braces 14 are employed, the hammock body is perforated for their reception. It will thus be apparent that the hammock body is directly received upon the seating and that it passes over the cross rods 18 and thence down under the end member 7 of the frame and thence up to the point of support. Likewise the lateral edges of the hammock body pass under the longitudinal members 6 of the frame and thence upwardly if the upstanding edges 4 be provided. The rods 13 serve another and important function. It will be observed that they pass through relatively short longitudinal slots 18 in the hammock body, and in use, the longitudinal tension to which the body is subjected from the suspension ends 1, draws the inner ends of said slots against said rods, and thus the longitudinal movement of the hammock body with respect to the frame is limited. Said rods in conjunction with said slots serve as stop devices preventing free longitudinal movement of the hammock body with respect to the frame under end tension.

While the hammock body may be supported upon the seating at substantially the level of the upper face of the frame, it is preferably arranged to permit the supporting of the hammock body equidistant from the upper face of the frame, whichever face of the latter be uppermost, and preferably close thereto. That is, I contemplate reversing the frame, if it becomes bent in use, in which event the seating and the frame are disengaged and the latter inverted. The cross bars hereinafter referred to may, however, be of such diameter as to serve to support the hammock body at substantially the level of the upper face of the frame, whichever face be utilized, or but very slightly below the upper face.

If desired, the cross rods 13 may be omitted in certain embodiments of my invention and the seating directly connected to the end members 7 of the frame. In Fig. 4, I have represented the springs 12 as directly connecting the seating to said end members, the hammock body being longitudinally slitted as represented at 20 for the passage of each spring. It is apparent, however, that if end springs be not em-

ployed, the seating may be connected in any suitable manner to the frame.

In Fig. 5, I have represented the seating composed of cords 21 which are laced back and forth between suitable hooks or eyes 22 secured to the longitudinal members 6 of the frame. In such construction, the hammock body is perforated adjacent the inner edges of the longitudinal members 6 for the passage of the cord or cords 21. If desired, the cords 21 may be continued to substantially the ends of the frame, but preferably they terminate somewhat short thereof, as indicated in Fig. 5, and cross bars 24 are provided over which the hammock body passes and thence under the longitudinal members 7 of the frame.

In that form of the invention wherein the cross bars are not directly connected to the seating, preferably the said bars are provided with loosely mounted sleeves 25 which are free to rotate under longitudinal strain upon the hammock body. Preferably said cross bars are metallic.

It will be observed that the seating is exposed from beneath, so that ready access is afforded thereto for adjustment or otherwise from beneath without separating the frame and the hammock cloth and without removing the mattress overlying the seating. This is true whether or not the hammock body be extended as described to overlie all or a portion of the seating. It is desirable in this connection to employ upstanding sides 4 and detachably or adjustably to connect the ends thereof to the suspension ends at the corners of the frame, as by lacing. In this manner, the sides can be drawn taut and sagging is prevented, while at the same time a better appearance at the corners is presented.

It will be apparent from the foregoing description that the frame embodying my invention is of simple construction and is inexpensive and that as the hammock body overlies the seating it is thereby positioned and supported at substantially the upper face of the hammock frame, or above the lower face thereof. Thus, if a mattress be employed, the latter is directly received upon the hammock body and may be supported thereby substantially flat. Moreover, the mattress is thoroughly protected from the seating, this being an important feature of the invention, particularly where a wire seating is employed. Moreover an additional covering for the seating is thus provided, thereby permitting the use of a thinner mattress if desired.

Obviously my invention may be applied to couches or other supports not of the suspension type.

The transverse rods secured to the side members of the frame adjacent the end members thereof, and engaging short longitudinal slits in the hammock body, limit the free longitudinal movement of the hammock body owing to end tension thereon in use. That is to say, I provide stop devices of suitable character preventing undue longitudinal movement of the hammock body relative to the frame when the hammock is suspended and in use.

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.

1. A framed hammock comprising in combination a hammock body having suspension means, a frame comprising longitudinal and end members, all of said members being received and supported upon the upper surface of said body, and a seating secured to said frame, said seating underlying a portion of the hammock body.

2. A framed hammock comprising in combination a hammock body having upstanding sides and suspension means, a frame having longitudinal and end members, all of said members being received and supported upon the upper surface of said body and a seating secured to said frame, said seating underlying a portion of the hammock body.

3. A framed hammock comprising in combination a hammock body having suspension means, a frame supported upon the upper surface of said body and a seating secured to said frame, said body being pierced for the passage of portions of said seating.

4. A framed hammock comprising in combination a hammock body having suspension means, a frame supported upon the upper surface of said body, and a seating secured to said frame, said seating penetrating said hammock body so as to permit the positioning of the hammock body above the said seating.

5. A framed hammock comprising in combination a hammock body having suspension means, a frame composed of longitudinal and transverse members all received and supported upon the upper surface of said body, and a flexible seating secured to said frame and underlying the hammock body and supporting the said body at substantially the upper face of the said frame.

6. A framed hammock comprising in combination a hammock body having suspension means, a frame composed of longitudinal and transverse members supported upon the upper surface of said body, and a flexible seating secured to the inner edges of said members and underlying the hammock body, and supporting the same at substantially the upper face of the frame.

7. A framed hammock comprising in combination a hammock body having suspension

means, a skeleton frame composed of longitudinal and transverse end members all of said members being adapted to rest upon and be supported by said body, and cross bars supported by the longitudinal members, the body of the hammock passing over said cross bars and thence under the transverse end members, to the points of suspension.

8. A framed hammock comprising in combination a hammock body having suspension means, a frame applied to said body and having longitudinal and transverse end members, and a seating having spring connections to said longitudinal members and end supporting means, the hammock body overlying said seating and slitted for the passage of said spring connections.

9. A framed hammock comprising in combination a hammock body having suspension means, a frame having longitudinal and transverse end members all applied to and resting upon the upper face of said body, and a frame seating having end spring supports, a portion of the hammock body overlying said seating.

10. A framed hammock comprising in combination a hammock body having suspension means, a frame having longitudinal and transverse end members supported upon the upper face of said body, and a seating having spring connections to said longitudinal members and end supporting springs, the hammock body overlying said seating and slitted for the passage of the side spring connections and for the end supports.

11. A framed hammock comprising in combination a hammock body having suspension means, a frame having longitudinal and transverse end members, a seating having side spring connections to said longitudinal members, cross bars supported by said longitudinal members between and adjacent said end members, and supporting springs connecting said cross bars and seating, said body overlying said seating and slitted for the passage of the side spring connections and the cross bars.

12. A framed hammock comprising in combination a hammock body having suspension means and a skeleton frame comprising longitudinal and transverse, end members, a seating having end connections with said frame and coiled springs arranged in pairs and connected at their ends to the sides of said seating and to the longitudinal members of the frame, said coiled springs being longitudinally arranged and slightly inclined and supporting the sides of the seating at a distance from the longitudinal members closely approximating that of the diameter of said springs, the said hammock body overlying said seating and slitted for the passage of said side, coiled springs.

13. A framed hammock comprising in combination, a hammock body having suspension means, a skeleton frame composed of longitudinal and transverse end members supported upon said body, said frame having body guiding cross bars between the end members, and a flexible seating beneath said hammock body.

14. A framed hammock comprising in combination a hammock body portion, suspension means, a frame having longitudinal and transverse end members, said frame being supported upon said body portion and provided with body guiding cross bars between the end members.

15. A framed hammock comprising in combination a hammock body portion, suspension means, a frame having longitudinal and end members received upon the upper face of said body portion and a seating secured to said frame, said seating underlying a portion of the hammock body portion.

16. A couch hammock comprising in combination a continuous hammock body having suspension means at its ends, a frame comprising longitudinal and end members, all of said members being received and supported upon the upper surface of the said body, one of said parts, which parts consist of the continuous hammock body and the frame, having between the ends of the frame near each end, stop devices engaging the other of said parts, and thereby when the hammock is in use, preventing free longitudinal movement of the hammock body with respect to the frame.

17. A couch hammock comprising in combination a continuous hammock body having suspension ends, a frame comprising longitudinal and end members, all of said members being received and supported upon the upper surface of the hammock body, one of said parts, which parts consist of the continuous hammock body and the frame, having between the outer edges of the end members and the inner edges of said longitudinal members, tension limiting devices engaging the other of said parts, and thereby, when the hammock is in use, preventing free longitudinal movement of the portion of the hammock body that lies between the longitudinal members of the frame.

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

ISAAC E. PALMER.

Witnesses:

FRED. E. FOWLER,

CHAS. M. LAUER.