No. 816,340. PATENTED MAR. 27, 1906.

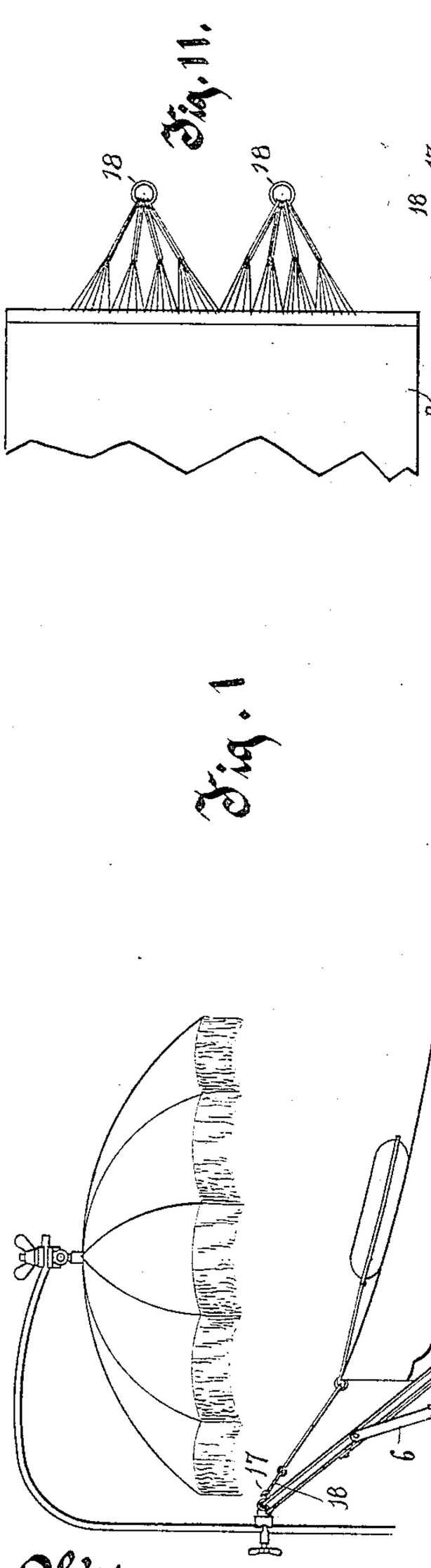
C. KNOERNSCHILD.

HAMMOCK SUPPORTING FRAME

APPLICATION FILED MAY 2, 1904.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses.

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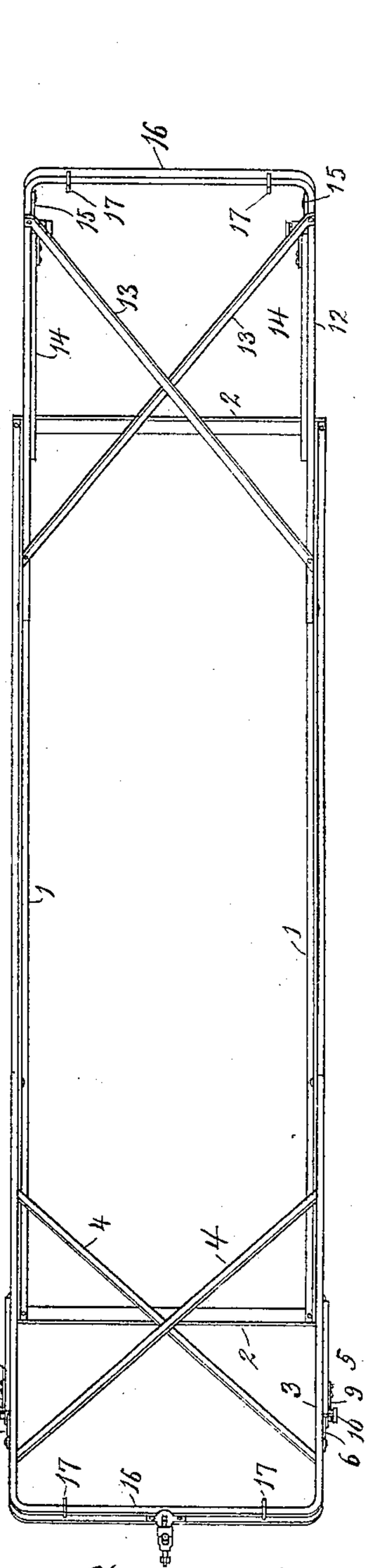
Anna F. Schmidtbauer

Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 2.

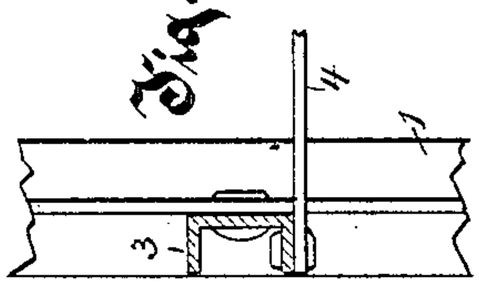


Fig. 8.

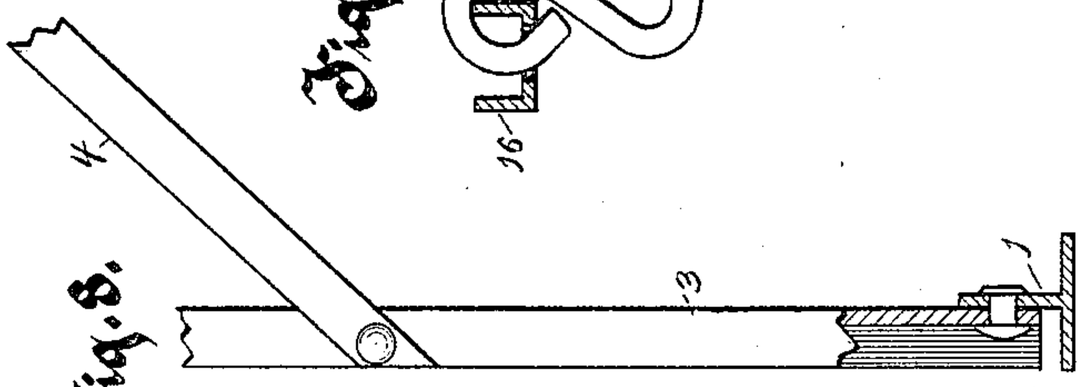


Fig. 10.

Fig. 7.

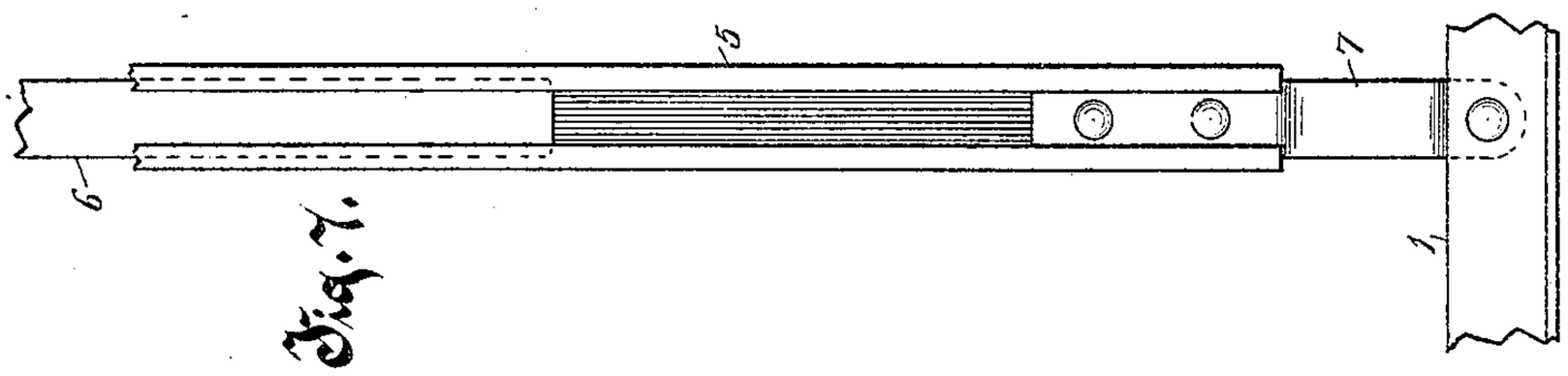


Fig. 6.

Fig. 5.

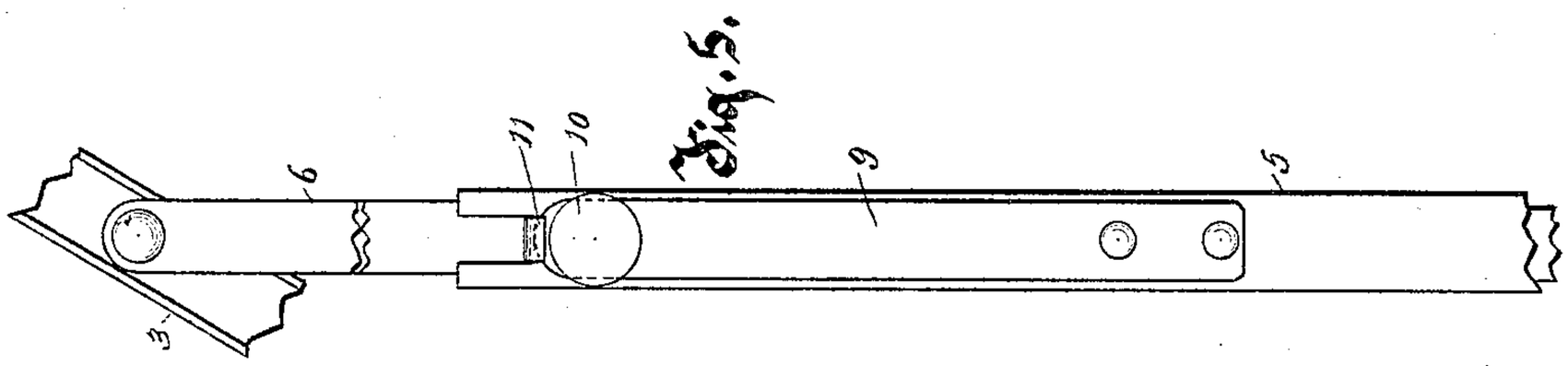


Fig. 3.

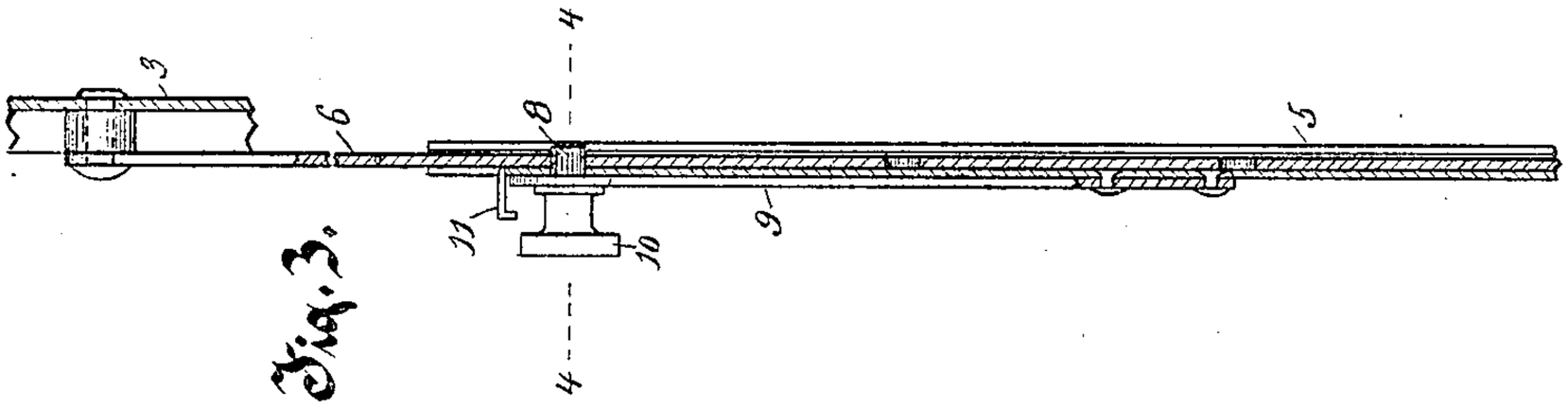
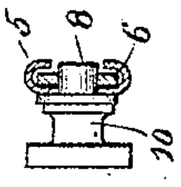


Fig. 24.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES KNOERNSCHILD, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO GEM HAMMOCK AND FLY NET COMPANY, OF MILWAUKEE, WISCONSIN, A CORPORATION OF WISCONSIN.

HAMMOCK-SUPPORTING FRAME.

No. 816,340. Specification of Letters Patent. Patented March 27, 1906.

Application filed May 2, 1904. Serial No. 205,973.

To all whom it may concern:

Be it known that I, CHARLES KNOERNSCHILD, residing in Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Hammock-Supporting Frames, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention relates to a collapsible and portable frame, adapted when set up to support a hammock in any of numerous and desirable positions, varying from a flat bed-like position to an upright chair position.

The object of the invention is to provide an improved frame, light in weight, strong and reliable in use, simple in character, and adapted to be readily set up, adjusted, and taken down, and capable of being packed in exceedingly close and compact form for transportation or storing away, and withal of remarkably inexpensive construction.

The invention consists of the frame, its parts, and combinations of parts, as herein described and claimed, or the equivalents thereof.

In the drawings, Figure 1 is a side elevation of my improved frame, a hammock being shown mounted thereon to illustrate the use of the frame. Fig. 2 is a top plan view of the frame alone when set up in the manner shown in Fig. 1. Figs. 3, 4, 5, 6, 7, 8, 9, and 10 show details of the construction, which will be readily and fully understood by the description hereinafter made thereof; and Fig. 11 illustrates a desirable method of mounting a hammock on the frame, especially to prevent the tilting or swaying of the hammock laterally on the frame.

The frame may be made of iron or steel or any other suitable material; but I advisably employ rolled iron of such forms as are adapted to the different parts of the construction and as will be readily recognized from the drawings.

My improved frame has an elongated base member, the two side rails 1 1 of which I have shown as made of T-iron and the two end rails 2 2 of which I have shown as made of angle-iron. These side rails and end rails are secured together at their ends conveniently by rivets, making the base member a rigid construction. This base member is adapted to be placed and thereby supported on a floor or the ground for the support of the frame and its load. A U-shaped head standard 3, advisably made of channel-iron, is pivoted at its ends to the upright rib of the T-iron side rails of the base member at a distance from one end of the base member, the standard being of such width and so formed as to be placed on and fit against the outside of the ribs of the side rails of the base member. This permits this U-shaped standard to be folded down onto the base member outside of the upright ribs of the side rails for compactness of condition for storing away. Obliquely disposed and crossing braces 4 4, advisably made of flat straps of iron, are riveted to the legs of the U-shaped standard and to each other where they cross and strengthen the standard. Details of these features are shown in Figs. 8 and 9. Tie-rods are also employed with this standard 3, which are each made in two parts telescoping on each other, one member 5 of each rod being pivoted at its lower end to the upright rib of a side rail 1 near the head end thereof and at a distance from the point of the pivoting of the leg of the standard 3 thereto, and the other or upper member 6 of each tie-rod is pivoted at its upper end to a leg of the standard 3 near its upper end. The upper and lower members of this tie-rod are made extensible by telescoping the one in the other, and for this purpose I have shown the main or body portion of the lower member 5 of the rod as being made of a flat strip of metal having its edges recurved and brought in toward each other, forming a channel, as shown in Fig. 7, in which the upper member 6, being a flat strip of metal, fits and moves freely endwise. The construction is shown in detail in Figs. 6 and 7. The channeled body portion of the lower member 5 is provided at its lower end with a tang or connecting-piece 7, riveted thereto, which connecting-piece forms the lower terminal end of the member 5 and by means of which it is pivoted to the side rail 1 of the base. This connecting-piece, forming the lower end of the lower member 5, is bent so as thereby to offset the tie-rod from the vertical rib of the rail 1, so that when folded down onto the side rail this tie-rod will be just outside and alongside of the leg of the standard 3, fitting closely thereto. For locking the

lower member 5 and upper member 6 of the tie-rod to each other adjustably I use a pin 8, adapted to enter registering holes through the members 5 and 6, which pin is mounted in the free end of a strap-spring 9, fixed at its distant end to the body of the lower member 5 by rivets. The construction is shown in detail in Figs. 3, 4, and 5. For conveniently withdrawing the pin 8 from engagement with the members 5 and 6 of the tie-rod I provide a knob 10, which may be integral with the pin 8, the knob being adapted to be grasped for pulling the pin out of engagement. For preventing the pin from being withdrawn too far I provide a stop 11, conveniently formed by cutting a tongue from the member 5 at its end and turning it outwardly and then inwardly to engage the end of the spring 9 and prevent its movement too far from the member 5. At the other end of the base member there is another U-shaped standard 12, also advisably made of channel-iron, the ends of which are pivoted to the upright rib of the side rails 1 1 of the base member, but on the inside thereof and at a distance from the end of the base member, which standard is provided with crossing strap-braces 13 13, like the braces 4 4, and secured to the standard and to each other in a similar manner. This standard with its braces is adapted when folded inwardly down upon the base member to fit just inside of the upright ribs on the side rails of the base member and lie very close thereto. Also there are tie-rods composed of lower members 14 and upper members 15, that telescope on each other, the lower member as shown in the drawings being the channeled member and receiving the upper or strap member therein and which are provided with pins like the pin 8, mounted on springs similar to the springs 9 and having knobs like the knob 10 and stops like the stop 11, all substantially like and adapted to operate in the same way as the tie-rods, the pin, and the spring with the stop, as shown and described on the tie-rods in connection with the standard 3 at the head of the frame. The cross-bars 16 of the respective U-shaped standards 3 and 12 are each provided with two hooks 17 17, located at a distance apart on each bar and adapted to take therein rings 18 18 on the outer ends of two groups of supporting-cords secured at their other ends to the cross-bars or stretchers of the hammock in the ends of the fabric thereof.

By reference to Fig. 1 it will be understood that if a hammock A is mounted on the frame when it is set up and the standards 3 and 12 are then both thrown outwardly in sharply-oblique positions the hammock will be held taut and in substantially a flat or bed-like position, and it will be understood that if then the longer standard 3, to which the head of the hammock is attached, is raised to or near to an upright position that end of the hammock will be considerably elevated, while at the same time the distance from the upper end of the standard 3 to the outer end of the standard 12 at the foot of the frame will be considerably shortened, giving slack to the hammock, so that the portion of the hammock nearer the head or highest end of the frame will drop down abruptly from the end of the hammock, thus putting the hammock in a shape more nearly to resemble the back and seat of a reclining-chair, and it will be understood that such position can be employed or the frame can be put in such positions intermediate of these two extreme positions, as may be desired, to give variety of position to the hammock.

What I claim as my invention is—

1. A hammock-supporting frame, comprising a rigid elongated base member, U-shaped head and foot standards pivoted at their ends to the base member respectively at a little distance from the head and the foot thereof, extensible tie-rods pivoted to the base member respectively near the head and the foot thereof and to the standards respectively near the upper ends thereof, the frame being adapted to be set up with the standards inclining outwardly in the direction of the length of the frame and upwardly, and the standards and tie-rods without disconnection at their ends to be folded inwardly down onto the base member in collapsed form for storing or transportation.

2. In a hammock-supporting frame, a rigid elongated base member in parallelogram form and having ribbed or flanged side rails, U-shaped standards pivoted to the side rails of the base member respectively at a little distance from the head and the foot thereof and adapted to fold inwardly down on the base member one standard on the outside and the other standard on the inside of the upright ribs and onto the flanges of the side rails of the base member, and tie-rods secured to the base member and to the standards adapted to secure the standards in upward position on the base member and against the strain of a hammock supported thereon and to be folded down alongside and respectively at the inside and outside of said standards.

3. In a hammock-supporting frame, a rigid elongated base member having ribbed or flanged side rails, U-shaped standards pivoted to the side rails of the base member respectively at a little distance from the head and the foot thereof and adapted to fold inwardly down on the base member one standard on the outside and the other standard on the inside of upright ribs or flanges of the side rails of the base member and so that both standards are in a common plane with the ribs on the base, and tie-rods secured to the base member and to the standards each tie-rod being composed

of two parts telescoping on each other and having means for locking them to each other releasably in adjusted position and being capable of being folded down alongside the standards respectively on the inside and the outside thereof and in the same plane therewith.

4. In a hammock-supporting frame, the combination with a rigid elongated base member, and a pair of U-shaped standards pivoted to and collapsible on the base member, of tie-rods pivoted to the base member and to the standards, each tie-rod being formed in two parts, the lower part being pivoted to the base member and the upper part being pivoted to the standard and one part being channeled and the other part being movable endwise in the channeled part, a flat spring secured to the channeled part and having a pin on its free end adapted to enter registering holes therefor in the two parts and lock them in position, and a stop on the channeled part adapted to engage the free end of the spring and prevent the withdrawal of the pin from the hole therein.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES KNOERNSCHILD.

Witnesses:
C. T. BENEDICT,
ANNA F. SCHMIDTBAUER.