W. B. TAYLOR.

SWING OR HAMMOCK HANGER.

APPLICATION FILED MAY 14, 1921.

1,389,538. Patented Aug. 30, 1921.

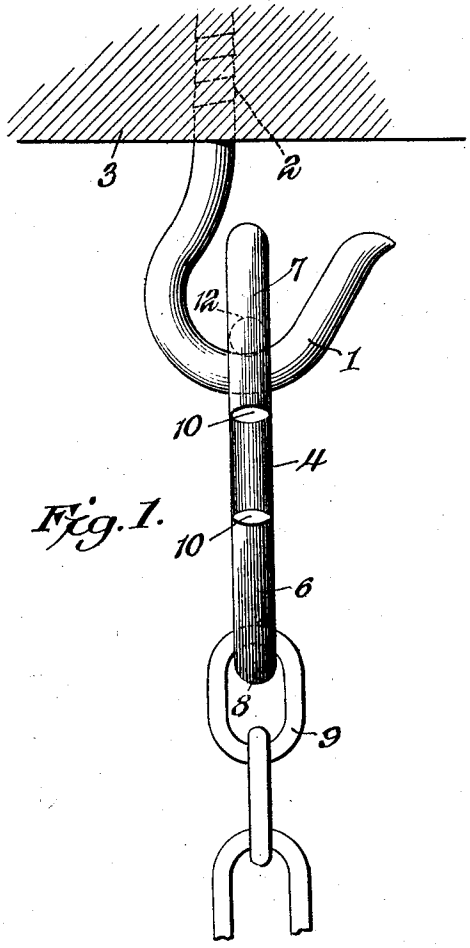


Fig. 1.

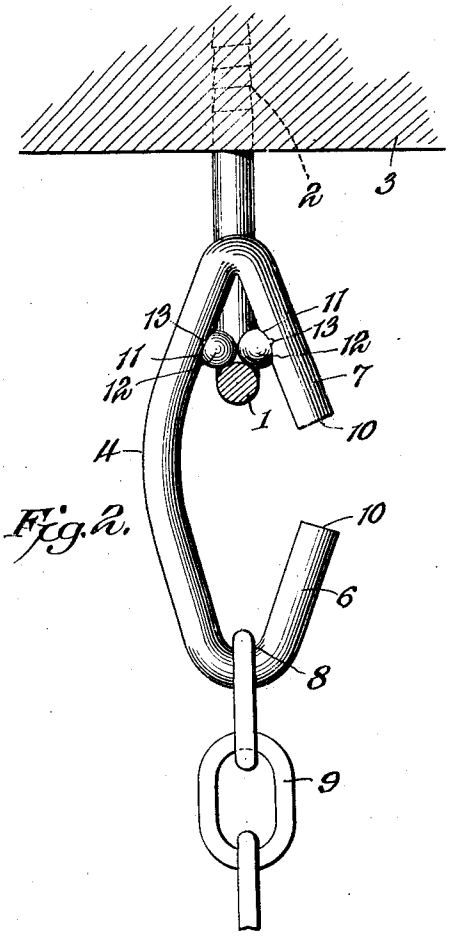


Fig. 2.

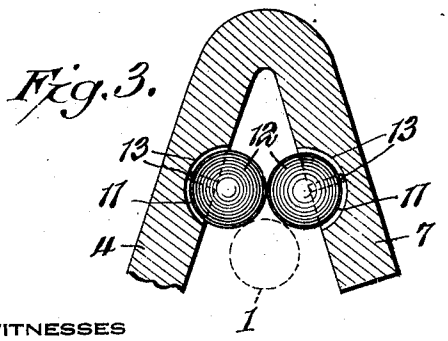


Fig. 3.

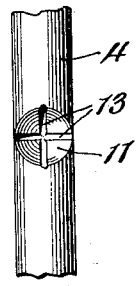


Fig. 4.

WITNESSES

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SWING OR HAMMOCK HANGER.

1,389,538. Specification of Letters Patent. Patented Aug. 30, 1921.

Application filed May 14, 1921. Serial No. 469,527.

To all whom it may concern:

Be it known that I, WILLSON B. TAYLOR, a citizen of the United States, residing at Uniontown, in the county of Fayette and State of Pennsylvania, have invented a new and useful Swing or Hammock Hanger, of which the following is a specification.

This invention relates to hangers for supporting swings, hammocks, or for other purposes.

The object is to provide a hanger for the support of swings, hammocks, cots or other similar movable devices to permit of the backward and forward travel of the same, while under relatively heavy load, without the usual creaking or grinding sounds accompanying the ordinary hanger.

Another object is to provide a hanger having anti-friction means located in the swinging hanger in such position as to ride at all times on the stationary hook or ring secured to the ceiling or other support, and to permit of the swinging action of the swing supporting chains or ropes with a minimum amount of friction and without noise, and reducing the wear of the contacting points of the said hook and hanger and prolonging the life of the same.

A further object is to provide an anti-friction device of this character having the foregoing advantages which comprises a minimum number of parts, thus permitting of its manufacture and sale at a low cost and so constructed as to permit of hanging the swing, cot or hammock supported thereby in the simple manner of an ordinary swing.

A full and complete understanding of the invention may be obtained from a consideration of the following detailed description, taken in connection with the accompanying drawing forming a part of this specification, it being understood that while the drawing shows a practical form of the invention, the latter is not to be confined to strict conformity therewith, but may be changed or modified, so long as such changes or modifications mark no material departure from the salient features of the invention as specifically pointed out in the appended claims.

In the drawing, in which similar reference characters designate corresponding parts throughout the several figures:

Figure 1 is a side elevation of the improved hanger with a portion of the swing or hammock supporting chain shown attached.

Fig. 2 is a front elevation, partly in section, of the same.

Fig. 3 is an enlarged detail sectional view of the manner of mounting the anti-friction balls in the hanger.

Fig. 4 is a detail elevation of the ball socket.

An ordinary hook 1 having its shank formed into a lag screw 2 is screwed into the ceiling 3 or other support, and it will of course be understood that the same may consist of an eye bolt or a stout loop or staple carried by an attaching plate screwed in position.

The ball-bearing hanger 4 which constitutes my invention is composed of a length of stout rod iron bent into a substantially diamond shape preferably, comprising the terminal V-shaped hooks 6 and 7 respectively, the lower hook 6 having its crotch 8 somewhat rounded to provide a relatively wide seat for the reception of one of the links of the supporting chain 9 or the looped end of a rope, as the case may be, in order to provide for the independent swinging action of the chain or rope, with relation to the hanger 4. This independent action, however, is very slight when the hammock or swing is under a heavy load, as the latter causes the chains or ropes and the hook members to move substantially in unison, in a direction at right angles to the plane of the ceiling hooks 1.

The upper hook 7, which is in the form of an inverted V, is of substantially the same width at the mouth thereof, as is the lower hook, and the terminals 10 of the rod comprising the hanger are arranged in vertical alinement and in spaced relation to each other to provide an entrance throat of sufficient width to readily permit the introduction of the upper hook 7 into the ceiling hook 1, as will be readily understood.

While a substantially diamond-shaped hanger has been shown and described, it will be seen that the same may partake of an S-shape, in which event the links of the supporting chains or the loops of the ropes will be engaged with the lower hooks of the movable hangers from the opposite direction, the lower terminal 10 then being on the opposite side. Indeed it is not necessary that duplicate hooks be provided, but in place of the hook 6, that end of the hanger may be formed with a ring, as the real invention resides in the other end of the hanger.

In the opposed inner faces of the upper terminal 10 and the upper portion of the connection between the hooks 6 and 7, there are provided opposed concave seats 11 into which are located a pair of steel balls 12, which snugly fit the same and are in contact with each other, the same resting on the hook 1, at one side of the vertical axis thereof and free to rotate in any direction while under strain without causing any noise and acting as a roller on the hook 1 to reduce the wear thereof to a minimum.

The seats 11 are ground smooth and are provided with a plurality of radially disposed grooves 13, adapted to be filled with grease, graphite or other lubricant to further enhance the frictionless and noiseless features of the device.

One way of making the device is as follows: The sockets or seats are first drilled in the piece of rod iron at the proper points before bending the same. The lower bend forming the hook 6 is first made. Then the iron is heated at the point where the bend for the upper hook is to be formed, taking care that the metal at the sockets or seats is kept cool. When the proper heat has been obtained for the bending of the iron, the hanger is laid on a flat surface and the balls also laid thereon and then the upper hook is squeezed around them, causing them to fit into their proper sockets or seats; it being understood that the balls are retained in their seats wholly by the bending of the hook. The space separating the sides of said hook is less than the combined diameter of the balls. From the foregoing it will be seen that a simple hanger for swings, hammocks or cots has been provided which may be easily manufactured and sold at a low cost, the same comprising only a single piece of rod iron, especially bent and formed into shape and two balls, all of which may be readily found upon the market, and that the same may be easily and quickly attached to any swinging device without the necessity for any additional hooks and regardless of the size of the ceiling hooks already in place.

What is claimed is:—

1. A ball bearing hanger comprising a member having a hook at one end, the arms of said hook having on the inner side opposed concave seats, and a pair of balls mounted partially within said seats and projecting therefrom and contacting with each other.

2. A ball bearing hanger comprising a member having a hook at one end, the arms of said hook having on the inner side opposed concave seats, said seats being provided with radial grooves to contain a lubricant, and a pair of balls mounted partially within said seats and projecting therefrom and contacting with each other.

3. A ball-bearing hanger comprising a double-ended hook formed of a single length of rod iron, one of the hooks having in its opposite arms a pair of opposed seats spaced from the crotch of the said hook, and a steel ball fitting partially within each seat and adapted to bear each against the other.

4. A ball bearing hanger comprising a member having a hook-shaped end, a pair of balls contacting with each other at a point short of said end, and seats provided in said hook-shaped end to receive said balls, the space separating the sides of said end being less than the combined diameter of said balls so as to hold the balls in said seats.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

WILLSON BERNARD TAYLOR.