June 1, 1937. W. H. McKISSICK 2,082,169

BECKET

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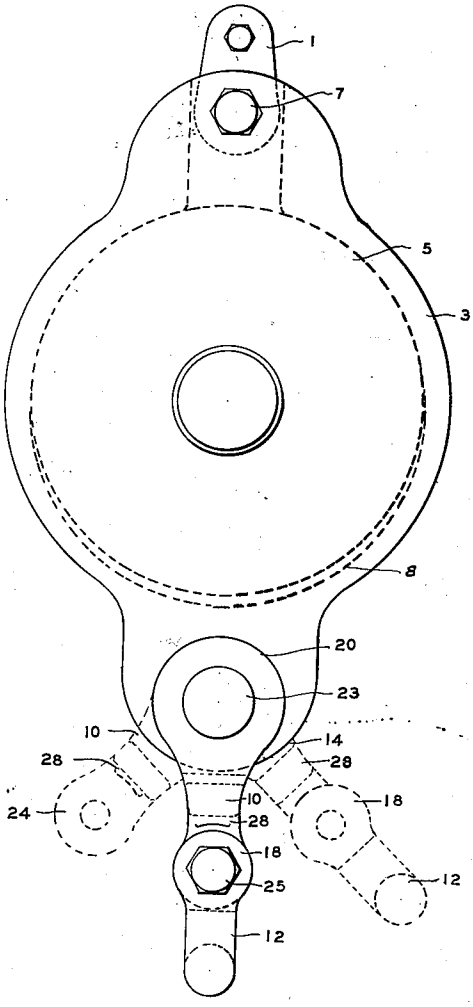


FIG. 2

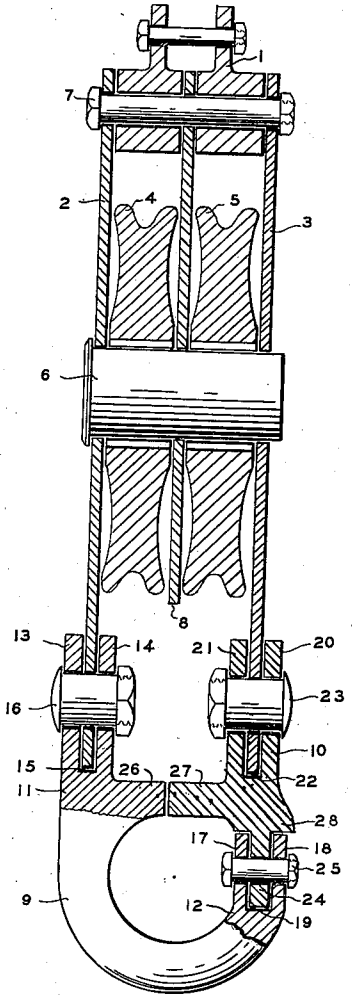


FIG. 1

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5 Claims. (Cl. 254—193)

This invention relates to new and useful improvements in pulley blocks and relates particularly to an improved form of yoke or becket for such blocks.

In my patent Number 1,702,218, dated February 12, 1929, I have patented an improved form of safety becket consisting of a hook portion and a keeper portion, both of which are swung from a single pivot pin or bolt passing through both of the side plates as well as the intervening spacer plates of a pulley block. Means are provided on the free ends of the hook and keeper portions of the becket for closing the becket to prevent displacement therefrom of the load carrying connection.

While the above patented device satisfactorily meets the objects for which it was designed, nevertheless, it is subject to at least one disadvantage in that the pulleys may be reeved with line only by threading the line endwise between the side plates, or, if it is desired to reeve the pulleys with bights or loops of line, the pivot pin supporting the becket and the becket itself must be entirely removed from the block in order that the bights of line may be passed between the side plates and over the pulleys.

Therefore, it is a principal object of this invention to provide an improved form of safety becket for pulley blocks which will have all of the advantageous features of my patented becket and which will, at the same time, eliminate its above mentioned disadvantage by providing an arrangement of parts which will permit easier reeving of pulleys without requiring the removal of the becket or its supporting pivot pin from the block.

Other objects and advantages of my new invention will be apparent from the following detailed description when read in conjunction with the accompanying drawing, in which one form of the invention is shown and wherein

Fig. 1 is a front elevation partly in section of a block having a becket in accordance with this invention in closed arrangement, and

Fig. 2 is a side elevation of same showing the becket closed in full lines and open in dotted lines.

Referring to the drawing, 1 designates a pulley block having side plates 2 and 3 enclosing a pair of pulleys 4 and 5 journalled on a pin 6 which is supported by plates 2 and 3. A bolt 7 passing through the top portion of plates 2 and 3, together with pin 6 hold the block 1 in its assembled arrangement. A spacer plate 8 is mounted between pulleys 4 and 5 and is supported by bolt 7 and pin 6 and extends for a short distance below the lower edges of pulleys 4 and 5. A becket consisting of a hook-member 9 and a keeper or hook-closing member 10 is pivotally attached to the lower edges of plates 2 and 3. Hook member 9 has a shank 11 and a curved bill 12. Shank 11 is formed into a clevis consisting of an integrally formed pair of arms 13 and 14 separated by a slot 15 which is adapted to receive the lower edge of plate 2. Registering holes in arms 13 and 14 and plate 2 are provided to receive a bolt 16 by means of which hook member 9 is pivotally supported on plate 2. Slot 15 extends for some distance below the lower edge of plate 2 which permits shank 11 of hook member 9 to swing freely only in the plane of plate 2. Bill 12 will swing in a plane parallel to that of plate 2, since it is an integral portion of hook member 9 and extends at right angles to the plane of plate 2. Bill 12 terminates at its free end in an integrally formed clevis consisting of a pair of arms 17 and 18 separated by a slot 19.

The keeper or hook-closing member 10 likewise has a clevis type shank consisting on an integrally formed pair of arms 20 and 21 separated by a slot 22 which is adapted to receive the lower edge of plate 3. Registering holes in arms 20 and 21 and plate 3 are provided to receive a bolt 23 by means of which hook-closing member 10 is pivotally supported on plate 3. Slot 23 extends for some distance below the lower edge of plate 3 which permits member 10 to swing freely only in the plane of plate 3. The free end of member 10 terminates in a depending stud 24 which is adapted to be received in slot 19 of bill 12 when the becket is closed. In this position, registering holes in arms 17 and 18 and stud 24 permit insertion of a fastening means such as a bolt 25 by means of which the free ends of members 9 and 10 are securely locked together to prevent displacement from the becket of any load connection carried thereby. Complementary studs 26 and 27 extend transversely toward each other from the inner sides of members 9 and 10 respectively and when the becket is in the closed position, form a bridge between the hook of the becket and the lower edges of pulleys 4 and 5 which will prevent fouling of the pulley lines and the load connection carried by the hook. A boss 28 on member 10 overhangs the head of bolt 25 protecting same from being caught by external objects.

When the pulleys are to be reeved with line, bolt 25 is withdrawn and member 10 is swung about pivot bolt 23 in the plane of plate 3 into the position shown in dotted outline in Fig. 2. The

loops or bights of line are then passed over bill 12, between studs 26 and 27 which are now separated and thence over the desired pulleys, until the block is fully reeved. The load carrying connection is then placed on the hook. Member 10 is then swung back into its closed position with stud 24 entering slot 19 in bill 12 until the holes in stud 24 and arms 17 and 18 register with each other whereupon bolt 25 is inserted in the holes fastening the free ends of members 9 and 10 in their closed position and locking the becket.

By means of the above described arrangement whereby members 9 and 10 are independently pivoted by means of separate pivot pins on their respective plates 2 and 3 so as to swing only in the planes of their respective plates, it is now possible to reeve a pulley block with bights or loops of line without removing the becket or its support pins from the block and without disturbing the arrangement of the parts of the block proper, thereby simplifying the reeving operation while retaining the safety features of the becket of the above described patent.

The above described becket may be used with multi-sheave pulleys as shown in the drawing or may be used with equal advantages with single sheave pulleys.

Various changes in the size and shape of the different parts, as well as modifications and alterations may be made within the scope of the appended claims.

What I claim and desire to secure by Letters Patent is:

1. A structure of the character described, comprising a hook member terminating in a bill, a hook closing member, means detachably joining the end of the bill to the lower end of the hook closing member, a plurality of side plates, rotatable pulley means arranged between said plates, a first means at the upper end of the hook member connecting it to one of the plates, and separate means arranged at the upper end of the hook closing member for connecting the latter to the other one of said plates independently of said first connecting means, one of said members being movable relatively to the other when said joining means is released, whereby said members, connecting means, and plates are adapted to form an unobstructed entrance to the pulley means to permit a line to be reeved on the pulley means without detaching either of said members from the plate with which it is connected.

2. A structure of the character described, comprising a hook member terminating in a bill, a hook closing member, means detachably connecting the end of the bill to the lower end of the hook closing member, a plurality of side plates, rotatable pulley means arranged between said plates, supporting means at the upper end of the hook member for supporting the hook member from one of the plates, and separate supporting means spaced from the hook supporting means and arranged at the upper end of the hook closing member for supporting the hook closing member from the other one of said plates independently of the hook supporting means, each of said members being movable relatively to the other when said connecting means is released, whereby said members, supporting means, and plates are adapted to form an unobstructed entrance to the pulley means to permit a line to be reeved on the pulley means without detaching either of said members from its supporting plate.

3. A structure of the character described, comprising a hook member, a hook closing member, means detachably connecting certain ends of said members to one another, a plurality of side plates, rotatable pulley means arranged between said plates, supporting means at the upper end of the hook member for supporting the hook member from one of the plates, and separate supporting means spaced from the hook supporting means and arranged at the upper end of the hook closing member for supporting the hook closing member from the other one of said plates independently of the hook supporting means, one of said members being movable about a pivotal axis relative to the other when said connecting means is released, whereby said members, supporting means, and plates are adapted to form an unobstructed entrance to the pulley means to permit a line to be reeved on the pulley means without detaching either of said members from its supporting plate.

4. A structure of the character described, comprising a hook member, a hook closing member, means detachably connecting certain ends of the members to one another, a plurality of side plates, rotatable pulley means arranged between said plates, supporting means at the other end of the hook member for pivotally connecting the hook member to one of the plates, and separate supporting means spaced from the hook supporting means and arranged at the other end of the hook closing member and pivotally connecting the hook closing member to the other one of said plates independently of the hook supporting means, said members being movable relatively to one another when the connecting means is released, whereby said members, supporting means, and plates are adapted to form an unobstructed entrance to the pulley means to permit a line to be reeved on the pulley means without detaching either of said members from its supporting plate.

5. A structure of the character described, comprising a hook member terminating in a bill, a hook closing member, means detachably connecting the end of the bill to the lower end of the hook closing member, a plurality of side plates, rotatable pulley means arranged between said plates, means at the upper end of the hook member for supporting the hook member from one of the plates, separate means spaced from the hook supporting means and arranged at the upper end of the hook closing member for supporting the hook closing member from the other one of said plates independently of the hook supporting means, one of said members being movable relatively to the other when said connecting means is released, whereby said members, supporting means, and plates are adapted to form an unobstructed entrance to the pulley means to permit a line to be reeved on the pulley means without detaching either of said members from its supporting plate, and a stud projecting from each of said members, arranged above said connecting means, and normally forming a bridge between said members.

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