SAFETY GUARD FOR SHEAVE BLOCKS

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BY

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To all whom it may concern:

Be it known that I, BURT STANLEY MINOR, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Safety Guard for Sheave Blocks, of which the following is a specification.

This invention relates to safety guards for sheave blocks, to prevent catching of one's limbs or clothing or any other object in the sheaves of the block and causing injury thereto.

An important object of the invention is to provide a safety guard for sheave blocks constructed of a plurality of sections which may be separately secured to or removed from the block, thus facilitating the handling of the guard, as much as the individual sections are lighter and more easily handled than the entire guard.

Another object is to provide a sectional safety guard having its sections divided through the "run-way" or cable holes, so that the sheaves may be spooled by removing only one of the sections instead of the entire guard.

Another object is to provide a sectional safety guard for sheave blocks in one section of which the oiling system of the block may be supported, while another section may be removed for restringing the sheaves, thus making it possible to restring the sheaves without disturbing the oiling system.

Another object is to provide a safety guard having cable slots or runways therein of such formation as to enable the sheave block to be tipped at an angle of not less than five degrees (5°) in any direction.

A further object is to provide a sectional safety guard with one section hinged so that it may be swung clear from an adjoining section to facilitate spooling and to eliminate the necessity of removing and replacing nuts and bolts when spooling the sheaves.

Other objects and advantages will be clearly apparent from the following description, reference being had to the accompanying drawings forming a part thereof, in which:

Fig. 1 is a side view of the guard secured on a sheave block.

Fig. 2 is a front view of the guard.

Fig. 3 is a vertical longitudinal section of my guard taken on line 3-3 of Fig. 2.

Fig. 4 is a horizontal section of my guard taken on line 4-4 of Fig. 3.

One of my guards may be placed on each side of the sheave block as shown in Fig. 1. The guard comprises a casing 10 formed with a front wall 11 and side walls 12, and it is divided into a plurality of superimposed sections 13 and 14 by a line of separation 15, which is cut in the side walls 12 near the upper end of the casing from the rear edges thereof forwardly to the front wall 11 and across the front wall. The line 16 being near the upper end of the casing, provides a lower section 15 of relatively considerable length and an upper section 14 of relatively short length. The guard in the present embodiment of the invention is divided into two sections, but it could be divided into a greater number of sections if desirable within the scope of my invention.

The front wall 11 extends straight vertically for a portion of its length as indicated at 17. From the lower end of the straight portion 18 the wall 11 is inclined inwardly and downwardly to a point 17 near the lower end and rear edges of the side walls 12 of the casing, from which point the wall extends straight down a short distance as indicated at 18 nearly to the lower end of the side walls 12 of the casing. From the upper end of the straight portion 15 the front wall 11 is arched upwardly and rearwardly as indicated at 19 to a point 20 near the rear edges of the side walls of the casing, from which point the wall extends straight upwardly as indicated at 21 to the upper end of the casing. The lower ends 22 of the side walls 12 extend downwardly a short distance below the lower edge of the front wall 11, which ends are provided with apertures 23. Lugs 24 extend inwardly from the upper end of the lower section 15 from the side walls 12 at right angles to said walls a short distance forwardly of the rear edges thereof, and in alignment with the lower straight portions 18 of the front wall 11, which lugs are provided with screw apertures 25. The lower section 13 of the casing is placed on the body 26 of the block 27, with the rear portions of the side walls 12 fitting over the sides of said body and the lower front wall portion 18 and lugs 24 resting against the front edge of said body in such position that the section 13 encloses the sheaves 28.
of the block with proper clearance between the periphery of the sheaves and the front wall 11. Screws 29 and 30 are driven through the apertures 23 and 25 and screws 31 are driven through apertures 32 in the lower front wall portion 18 into the block body 26, whereby the lower section 13 is secured on the block, being pivotally secured at its lower end to the block by the screws 29.

Lugs 33 provided with apertures 34 are formed on the upper section 14 at the lower edge thereof, in alignment with the portion 21 of front wall 11, which lugs extend inwardly from the side walls 12 at right angles thereto a short distance forwardly of the rear edges of said side walls. The section 14 is placed on the block 27 immediately above section 13, with the rear portion of its side walls 12 fitting over the sides of the block body 26 and with the front wall portion 21 and lugs 33 fitting against the front of the block body 26. Screws 35 are driven through the lug apertures 34 and screws 36 are driven through apertures 37 in the front wall portion 21 into the block body 26, whereby the section 14 is secured on the block. Cable slots 38 are provided in the arched portion 19 of the front wall 11 of the casing, extending longitudinally in the direction of curvature of said wall, with the line of division 15 extending transversely through the slots, the lower portion of which openings being located in the upper edge of the front wall of the lower section 13, and the upper edge of the slots being located in the lower edge of the front wall of the upper section 14. The lower and upper edges 39 and 40 of the cable slots 38 extend tangentially to the periphery of the sheave wheels 28 so as to enable the sheave block to be tipped at an angle of not less than five degrees in either direction without causing the cables to engage the ends of the slots. The cable slots 38 are located forwardly of the lugs 24 and 33 so that access may be had through said slots into the upper part of the casing 10 for driving the screws 30 and 35 through the apertures 24 and 34 in said lugs into the block body 26, or for removing said screws.

Openings 41 and 42 are provided in the front wall 11 of the lower section 13 and openings 43 are provided in the side walls of the lower section for lightening the device. Apertures 44 are provided in the front wall of the upper section 14 between the slots 38 through which apertures are extended the ducts 45 of the oiling system of the block.

Upon removing the screws 31 the lower section 13 may be swung forwardly on the screws 29 as pivots, as shown in dotted lines in Fig. 3, opening the upper part of the casing 10 so that the sheaves may be easily spooled through said open part of the casing, thus enabling the block to be spooled without removing the entire guard and without disturbing the upper section 14 and the oiling system of the block.

What I claim is:

1. A guard for sheave blocks comprising a casing provided with cable slots through which the block cables may be extended, said guard being divided transversely into sections through said slots, and means for independently securing said sections on the sheave block over the face of the sheaves of the block.

2. A guard for sheave blocks comprising a casing provided with cable slots through which the block cables may be extended, said guard being divided into sections through said slots, means for independently securing said sections on the sheave block over the sheaves of the block, and pivot means for pivotally securing one of said sections to the block so that said section may be swung outwardly from the block upon removing the first of said securing means of said section for opening the casing at its line of division for spooling the sheaves.

3. A guard for sheave blocks comprising a casing provided with cable slots through which the block cables may be extended, said guard being divided into sections through said slots, and means for independently securing said sections on the sheave block over the sheaves of the block, so that one of the sections may be removed for spooling the sheaves, another section being provided with openings through which the inlets of the oiling system of the block are extended.

4. A guard for sheave blocks comprising a casing formed with a front wall and side walls, the front wall inclining rearwardly toward its lower end to a point a short distance forwardly of the rear edges of the side walls and the front wall being arched upwardly and rearwardly to a point a short distance forwardly of said rear edges of said side walls, the casing being provided with cable slots in said arched portion of the front wall, the casing being divided into sections through said cable slots, lugs on the upper end of the side walls of the lower section through which screws may be driven into the front of the sheave block, the lower ends of the side walls of the casing being provided with apertures through which screws may be driven into the sides of the sheave block on which said lower section may be swung forwardly upon removal of the screws from said lugs, and means for securing the upper section on the block.

5. A guard for sheave blocks comprising a casing formed with a front wall and side walls, the front wall inclining rearwardly toward its lower end to a point a short dis-
distance forwardly of the rear edges of the side walls and the front wall being arched upwardly and rearwardly to a point a short distance forwardly of said rear edges of said side walls, the casing being divided into sections through said arched portion of the front wall, the casing being divided into sections through said cable slots, lugs on the upper end of the side walls of the lower section through which screws may be driven into the front of the sheave block, the lower ends of the side walls of the casing being provided with apertures through which screws may be driven into the sides of the sheave block on which screws the lower section may be swung forwardly upon removal of the screws from said lugs, means for securing the upper section on the block, and lugs on both of said sections being located inside the casing opposite said cable slots.

6. A guard for sheave blocks comprising a casing formed with a front wall and side walls, the front wall inclining rearwardly toward its lower end to a point a short distance forwardly of the rear edges of the side walls, and the front walls being arched upwardly and rearwardly to a point a short distance forwardly of said rear edges of said side walls, the casing being provided with cable slots in said arched portion of the front wall, the casing being divided into sections through said cable slots, lugs on the upper end of the side walls of the lower section through which screws may be driven into the front of the sheave block, the lower ends of the side walls of the casing being provided with apertures through which screws may be driven into the sides of the sheave block on which screws the lower section may be swung forwardly upon removal of the screws from said lugs.

In witness that I claim the foregoing I have hereunto subscribed my name this 8th day of March, 1924.

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