

(No Model.)

T. E. WARDWELL.
PULLEY BLOCK.

No. 420,177.

Patented Jan. 28, 1890.

Fig. 1.

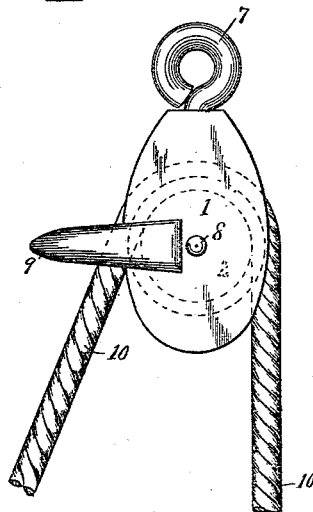


Fig. 2.

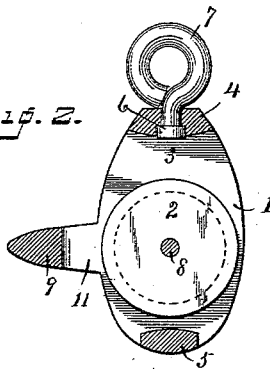
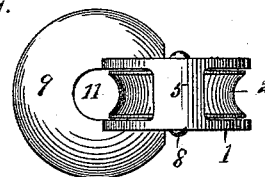


Fig. 3.



WITNESSES

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PULLEY-BLOCK.

SPECIFICATION forming part of Letters Patent No. 420,177, dated January 28, 1890.

Application filed September 9, 1889. Serial No. 323,427. (No model.)

To all whom it may concern:

Be it known that I, THEODORE E. WARDWELL, a citizen of the United States, residing at Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Pulley-Blocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is applicable to all classes of pulley-blocks—as, for instance, for use with awnings, on vessels in manipulating the sails, and also in handling hay, straw, &c., in the various classes of hay-forks and carriers now in use.

It has long been a serious objection to pulley-blocks as ordinarily constructed, that the canvas of an awning or sail was exceedingly likely to get drawn into the block, with the result that holes were quickly cut in the canvas and serious inconvenience caused to the operator; and in hay forks and carriers the hay and straw were likely to get drawn into the block and to entirely stop the operation of the mechanism. My invention, therefore, has for its object the production of a device of this class which shall be so constructed as to render it practically impossible for folds of the canvas of an awning or sail, when the device is used as a lifting device, to be drawn into the pulley-block. I am well aware that various constructions intended to accomplish this result have heretofore been produced and placed upon the market. Most of them, however, are complicated and expensive, and so far as I am aware none of them have proved acceptable in general use. It is required in a device of this class that there shall be no extra pieces or movable pieces other than the pulley and swivel, that the entire body and any style of guard that may be used shall be cast in a single piece, and, moreover, that the pattern shall be so shaped as to enable the casting to be readily drawn from the sand.

Having these ends in view I have devised the simple and novel construction, of which the following description, in connection with the accompanying drawings, is a specifica-

tion, numbers being used to denote the several parts.

Figure 1 is an elevation illustrating my novel pulley-block as in use; Fig. 2, a section thereof, and Fig. 3 is an inverted plan view, the cord or rope being removed.

1 denotes the body of the block, which is preferably made oval in general outline and considerably longer, but very little wider, than the pulley which I denote by 2. The block is provided with the usual opening 3 entirely through it from side to side to receive the pulley, and with a top cross-piece 4 and bottom cross-piece 5.

6 is a swivel which is fixed to turn in the upper cross-piece and is provided with a ring 7 by which the block is suspended in use. An ordinary eye may of course be cast on the block, if preferred. The pulley is preferably journaled on a pin 8, passing entirely through both sides of the block.

The novel feature of my improved block is a guard 9 upon one side of the block and cast integral therewith. This guard is preferably made approximately circular, as seen in the plan, its width being greater than the thickness of the block, the rope or cord (denoted by 10) passing in use through a hole 11 in the center of the guard. The object of this special construction is to permit the rope or cord to move freely through the guard, at the same time allowing but very little play thereto. The hole in practice is made so small that it is entirely impossible for any folds of the canvas to be drawn into the block. If the rope is connected directly to the canvas, the folds thereof pile up on the under side of the guard, and if the rope is connected to the canvas by rings, which is the customary way, the rings are drawn up against each other on the under side of the guard, but without the slightest possibility of any of the canvas being drawn into the block, or any entanglement of canvas, rope, or rings taking place.

I find in practice that heavy awnings in which this pulley-block is used may be raised with a mere fraction of the power required to lift ordinary awnings when ordinary pulley-blocks are used, and that when the cord or rope is released the awning instantly drops down to place, there being no neces-

sity for twitching and pulling at the rope or at the lower edge of the awning to cause it to drop down to its proper position.

Having thus described my invention, I
5 claim—

A pulley-block having an opening through it from side to side to receive the pulley, said block being provided with top and bottom cross-pieces, and with an integral guard projecting outward horizontally from one side

thereof, said guard being made wider than the thickness of the block and having a central vertical opening for the cord to pass through, as and for the purpose set forth.

In testimony whereof I affix my signature 15
in presence of two witnesses.

THEODORE E. WARDWELL.

Witnesses:

THOMAS P. MILLER,
WILLIAM HUFF.