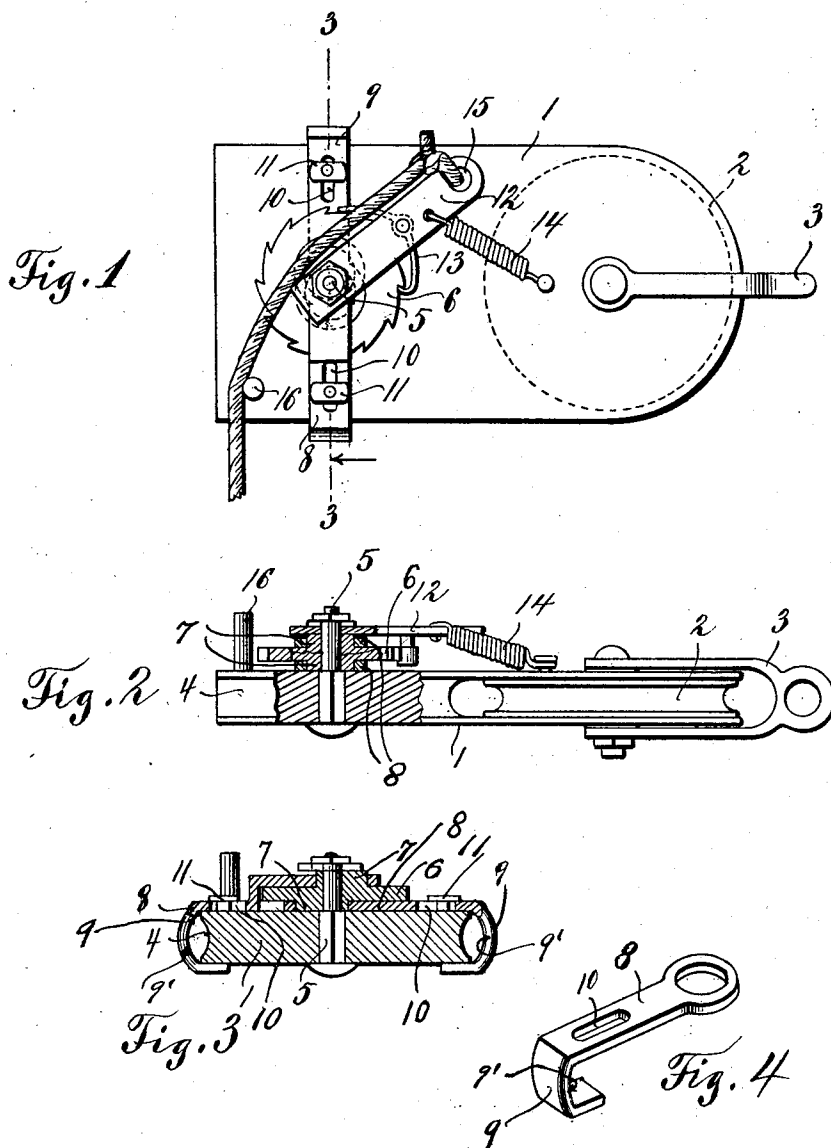


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PULLEY BLOCK.

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WITNESSES:

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PULLEY-BLOCK.

1,032,943.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE RISK, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Pulley-Blocks, of which the following is a specification.

This invention has reference to an attachment for pulley blocks, the same comprising a clamping means whereby the rope or cable passing over the pulley may be engaged for stopping the movement of the rope.

This invention is especially adapted for use on the endless type of clothes lines which are supported entirely by pulleys and, owing to the weight of the articles hung on the line, a sag often results and the tendency of the articles is to drift to a point approximately central relative to the supporting pulleys. It is, therefore, difficult to keep the articles at a certain point relative to the pulleys and it is an object of the present invention to provide a pulley with a brake whereby the above inconvenience is eliminated. This invention is also adapted for use wherever pulleys are desired or used, such as a block and tackle.

A further object of the device resides in a novel means whereby the brakes may be quickly and easily applied to the cable and released therefrom.

With the above and other objects in view, this invention consists in the construction, combination, and arrangement of parts, all as hereinafter more fully described, claimed and illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of the present invention; Fig. 2 is an edge view parts thereof being broken away to more clearly disclose the construction; Fig. 3 is a sectional view taken on line 3—3 of Fig. 1; Fig. 4 is a detail view used in the present construction.

Throughout the following detail description, and on the several figures of the drawings, similar parts are referred to by like reference characters.

In carrying out the present invention, 1 designates the block having one end thereof bifurcated to receive a pulley 2 and also may have secured thereto any desirable supporting means, such as a clevis 3. The opposite edges of the block 1 are grooved, as at 4, in

which the cable or rope moves before and after passing about the pulley 2. Projecting from one side of the block 1 is a shaft 5 which has rotatably mounted thereon the ratchet wheel 6, the latter having formed on opposite sides thereof and integral therewith the eccentrics 7, said eccentrics 7 extending in opposite directions from the shaft 5. Loosely mounted on each eccentric 7 is a clamping arm or member 8 which has its free terminal 9 bent over the grooved edge of the block where it is adapted to engage the cable. The main portion of each arm 8 is provided with a slot 10 and receives the stay or guide pin 11 whereby accidental dislodgment of said arm is prevented. A lever 12 is mounted on the shaft 5 and has pivotally mounted thereon a pawl 13 adapted to engage the ratchet wheel for rotating the latter. A spring 14 carried by the block 1 is secured to the lever 12 whereby after pulling the lever by any suitable means fastened in the opening 15 provided in the lever, said lever will be retracted to its normal position. The movement of the lever 12 is limited by a stop pin 16.

From the foregoing, it will be observed that the clamps or brakes 9 engage the rope or cable as it enters upon the pulley 2 and also after leaving the latter. By this construction an efficient brake is obtained since the cable is doubly engaged, besides the construction being simple, durable and easily applied to any block. Furthermore, it will be noted that the present invention may be applied to a block or body such as 1 with the pulley and hook omitted and the same secured to the ordinary block and tackle by any suitable means, without departing from the scope of the invention, as claimed herein. In operation, the lever 12 is adapted to swing from its normal position in an arc of one hundred and eighty degrees where its movement is limited by the stop pin 16 and, upon releasing said lever, the spring 14 will retract the former to its normal position. Upon pulling the lever 12, the pawl 13 engages the ratchet wheel 6 causing the latter to make a one-half rotation. During such rotation, the clamps or brakes 8 will be applied to the cable by the partial rotation of the eccentrics 7. Upon the second pull on the lever 12, the ratchet wheel 6 will complete its rotation and, through the eccentrics 7, the clamps will be disengaged from the cable, as will be obvi-

ous. The parts of the arms 9 which engage the rope or cable are rounded off on the edges as at 9' to prevent the latter from cutting into the rope during the applying or releasing of the clamps since the edges will be the first part of the arms to engage and the last part to release the cable owing to the eccentricity of the cams or eccentrics.

In operating the present invention, the lever 12 when actuated will cause the cams to move or rotate in an arc of 180° and when the cams or eccentrics 7 are in alinement with the clamping brakes 8 there will be no tendency for the ratchet 6 to move since any pull or push will be directly toward the shaft or pin 5 or, in other words, the connection of the clamping members 8 with the eccentrics or cams 7 will be at a dead center.

From Fig. 2, it will be noted that the spring 14 is secured to the body 1 in a lower plane than the connection of said spring to the lever 12 so that upon rotating the lever 12, the spring 14 will engage about the ratchet wheel or the shaft 5, thus preventing said spring pulling from below said shaft.

Having thus fully described my invention, what is claimed as new is:—

In combination, a body having its opposite edges grooved, a cable operating in said grooved edges, a shaft secured to said body, a ratchet member rotatably mounted on said shaft, an eccentric member formed on each side of said ratchet member, each eccentric member extending in opposite directions from said shaft, a clamping member for clamping the cable in the grooves on the outside of the body, said clamping member adapted to be operated by each of said eccentric members and slidably mounted on said body, and means coöperating with said ratchet member for rotating the latter and causing said clamps to engage and disengage said cable.

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

GEORGE RISK.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."