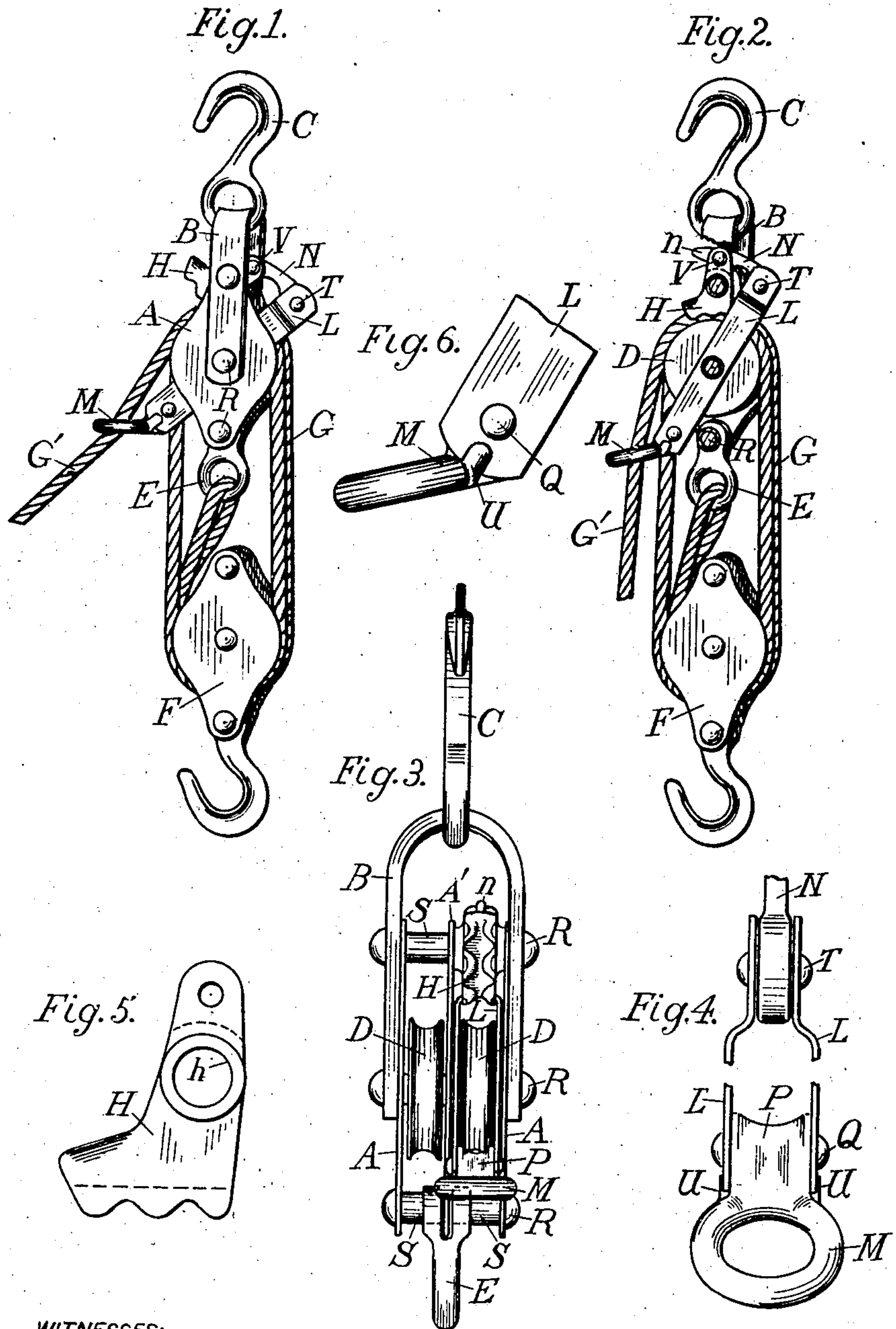


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PATENTED JULY 7, 1908.

A. H. NELLER.
PULLEY BLOCK.
APPLICATION FILED DEC. 21, 1907.



WITNESSES:

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PULLEY-BLOCK.

No. 892,678.

Specification of Letters Patent.

Patented July 7, 1908.

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To all whom it may concern:

Be it known that I, ALBERT H. NELLER, a citizen of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented a new and useful Improvement in Pulley-Blocks, of which the following is a specification.

This invention relates to a pulley block having a brake to grip the rope and hold it at any desired point, and it consists of an improvement in the details as set forth in this specification, and more specifically pointed out in the claims.

In the accompanying drawings forming a part of this specification, Figure 1 is a perspective of a pulley block embodying my invention as used with a separate block and rope to form a regular block and tackle. Fig. 2 is the same in another position, the front part of the frame of the block being broken away to show the working parts. Fig. 3 is a front or edge view of the block without the rope. Fig. 4 is a front view of a lever to operate the brake, the central portion being broken away. Fig. 5 is a side elevation of the brake. Fig. 6 is a side elevation of the lower end of the brake lever.

Referring to the drawings, A represents the frame of the pulley block, preferably consisting of two plates, to which a strap B is attached for the connection of the sustaining hook C. Usually the block is made in two divisions by the insertion of a central plate A' and two sheaves D, are mounted in the spaces between the plates.

E represents an eye secured to the lower end of the pulley block.

F is a separate block and G is a rope rigged in the usual manner of a block and tackle. The plates comprising the frame of the pulley block are preferably held together by means of rivets R which are passed through thimbles or sleeves S inserted between the plates to hold them the proper distance apart. Similar rivets and sleeves are preferably used in a central part of the plates and the sheaves D are mounted upon them. The two upper rivets are also used to secure the strap B to plates A.

H represents the brake having a central perforation *h*, and its lower end preferably broadened and corrugated to more effectively grip the rope. Its upper end is preferably bifurcated as indicated by dotted lines in Fig. 5 and is fitted with a small perfora-

tion. It is mounted upon one of the upper rivets, the thimble being passed through the perforation *h*, so as to stand immediately over the sheave over which the free end of the rope G' is passed.

L represents a brake lever having a central perforation by means of which it is pivoted upon the axle or rivet upon which the sheaves D are mounted. Its lower end is fitted with an eye M through which the free end of the rope G' is passed. To its upper end is pivoted a connecting plate or link N, the office of which is to connect the upper ends of the lever and the brake together. The lever L is preferably made of two pieces so it can straddle the sheave adjacent to it. The eye M has an extended portion P which is secured between the lower end of the pieces by means of a rivet Q and the connecting link N is pivoted between the upper ends by means of a rivet T. In order to hold the eye M more securely in its place, small lugs U are formed on the sides of the portion P adjoining the eye proper, and notches are formed in the lower ends of the pieces L so as to receive the lugs and hold the eye in permanent position. The inner end of the link N is inserted in the bifurcated end of the brake H and is held in place by means of a rivet V. This end of the link is fitted with an extension *n* so as to come in contact with the bottom of the bifurcated end of the brake and thus to prevent too great a movement of the brake and the lever.

It will be seen that by pulling out on the free end of the rope G' the lever L will be tilted and the brake drawn away from engagement with the rope, in which case the rope will be free to run over the sheaves D. Also, that by drawing the rope in toward the pulley block the lever L will be brought into a more perpendicular position and the brake L will be brought into operative contact with the rope thus holding it from a backward movement. In this way the operator while elevating the load can stand at some distance from it and not be in danger of being struck by the movement of the load being elevated. Further, when the pulley block is used for stretching a barbed wire or woven wire the operator can stand at a distance from the wire while operating it and not be in so great danger of being injured by the barbs as if the operative position of the rope was close to the wire. A single inward movement

is sufficient to lock the rope and in making this movement there is little or no danger of injury from the material being handled. The eye E preferably has a vertical slot in the center of its upper end so it will straddle the lower end of the plate A' while the sleeves S are inserted in transverse horizontal perforations in the head of the eye so as to hold it in place. This insures the central location of the eye E and permits it to swing freely in whatever direction it may be drawn by the rope.

The pulley block is exceedingly simple in construction and effective in operation.

What I claim is;—

1. In pulley blocks, a frame, a sheave mounted in the frame, a rope passed over the sheave, a brake pivoted in the frame above the sheave and adapted to grip the rope and be released therefrom, and a lever pivoted in the body of the frame adjacent to the sheave and extending above and below it, its lower end having an eye through which the rope is passed, and its upper end connected to the brake so that the lateral movement of the rope in the eye will rock the lever on its pivot and operate the brake, the lever being so arranged that its alinement will be substantially within a plane of the lateral dimensions of the block.

2. In pulley blocks, a frame, a sheave mounted in the frame, a rope passed over the sheave, a brake pivoted in the frame above the sheave and adapted to grip the rope and be released therefrom, and a lever pivoted in the body of the frame and composed of two parts riveted together and surrounding the sheave and extending above and below it, its lower end having an eye through which the rope is passed and its upper end connected to the brake, so that the lateral movement of the rope in the eye will rock the lever on its pivot and operate the brake in both directions.

3. In pulley blocks, a frame, a sheave mounted in the frame, a rope passed over the sheave, a brake pivoted in the frame above the sheave and adapted to grip the rope and be released therefrom, and a lever pivoted on the axle on which the sheave is mounted and extending above and below it, its lower end having an eye through which the rope is passed and its upper end connected to the brake, so that the lateral movement of the rope in the eye will rock the lever on its pivot and operate the brake, the lever being so arranged that its alinement will be substantially within a plane of the lateral dimensions of the block.

4. In pulley blocks, a frame, a sheave mounted in the frame, a rope passed over the sheave, a brake pivoted in the frame above the sheave and adapted to grip the rope and be released therefrom and a lever pivoted in the body of the frame and composed of two

parts riveted together and surrounding the sheave and extending above and below it, its lower end having an eye secured between the said parts through which the rope is passed, and its upper end connected to the brake, so that the lateral movement of the rope in the eye will rock the lever on its pivot and operate the brake in both directions.

5. In pulley blocks, a frame, a sheave mounted in the frame, a rope passed over the sheave, a brake pivoted in the frame above the sheave and adapted to grip the rope and be released therefrom, and a lever pivoted in the body of the frame and composed of two parts riveted together and surrounding the sheave and extending above and below it, its lower end having notches in each of the parts and an eye through which the rope is passed secured between the said parts and having lugs which engage the said notches thereof, and its upper end connected to the brake, so that the lateral movement of the rope in the eye will rock the lever on its pivot and operate the brake.

6. In pulley blocks, a frame, a sheave mounted in the frame, a rope passed over the sheave, a brake pivoted at its center in the frame above the sheave having its lower end adapted to grip the rope, a connecting link pivoted to the upper end of the said brake, and a lever pivoted in the body of the frame adjacent to the sheave, and extending above and below it, its upper end being pivoted to the said connecting link, and its lower end having an eye through which the rope is passed so that the lateral movement of the rope in the eye will rock the lever on its pivot and operate the brake.

7. In pulley blocks, a frame, a sheave mounted in the frame, a rope passed over the sheave, a brake pivoted at the center in the frame above the sheave, having its lower end adapted to grip the rope and be released therefrom, a connecting link pivoted to the upper arm of the said brake, and a lever pivoted in the body of the frame and composed of two parts riveted together and surrounding the sheave and extending above and below it, the said connecting link being pivoted to the upper end between the parts thereof, and its lower end having an eye through which the rope is passed so that the lateral movement of the rope in the eye will rock the lever on its pivot and operate the brake.

8. In pulley blocks, a frame, a sheave mounted in the frame, a rope passed over the sheave, a brake pivoted at the center in the frame above the sheave having its lower end adapted to grip the rope and be released therefrom, a connecting link pivoted to the upper arm of the said brake, and a lever pivoted in the body of the frame and composed of two parts riveted together and surrounding the sheave and extending above

and below it, the said connecting link being pivoted to the upper end between the parts thereof, and its lower end having an eye secured between the said parts through which the rope is passed so that the lateral movement of the rope in the eye will rock the lever on its pivot and operate the brake.

9. In pulley blocks, a frame, having a central dividing piece, a sheave mounted on each side of said piece, a rivet to hold the parts of the frame together, an eye having a slot in one end to straddle the central dividing piece and a transverse hole in the slotted end through which the rivet is passed.

10. In pulley blocks, a frame, a sheave mounted in the frame, a rope passed over the sheave, a brake pivoted at its center in

the frame above the sheave having its lower end adapted to grip the rope, a connecting link pivoted to the upper arm of the said brake and having a projecting point adapted to come in contact with and limit the movement of the brake, and a lever pivoted in the body of the frame adjacent to the sheave and extending above and below it, its upper end being pivoted to the said connecting link, and its lower end having an eye through which the rope is passed so that the lateral movement of the rope in the eye will rock the lever on its pivot and operate the brake.

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Witnesses:

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