

No. 672,344.

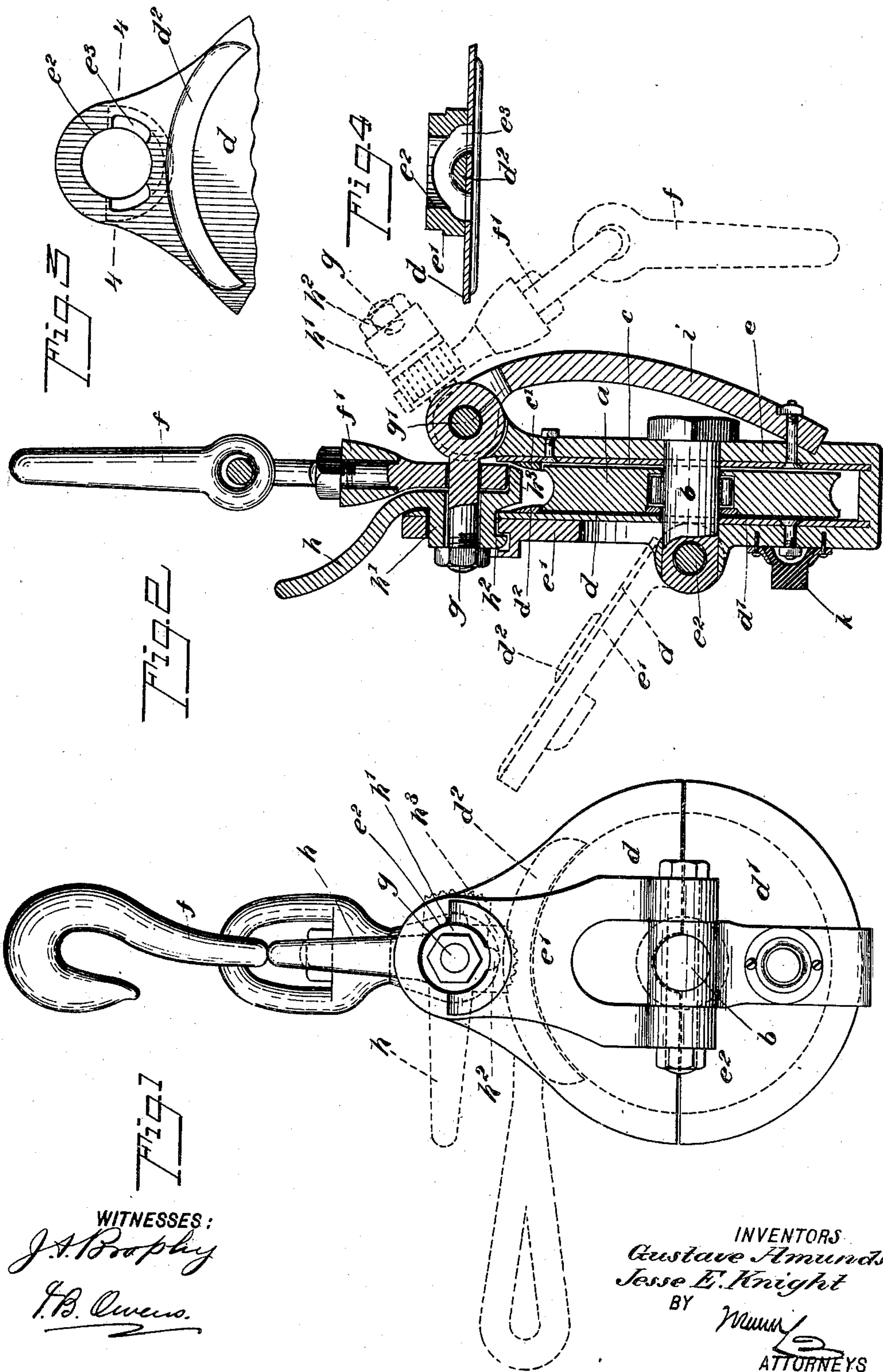
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G. AMUNDSON & J. E. KNIGHT.

SNATCH BLOCK.

(Application filed Dec. 10, 1900.)

(No Model.)



WITNESSES:

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SNATCH-BLOCK.

SPECIFICATION forming part of Letters Patent No. 672,344, dated April 16, 1901.

Application filed December 10, 1900. Serial No. 39,336. (No model.)

To all whom it may concern:

Be it known that we, GUSTAVE AMUNDSON and JESSE E. KNIGHT, citizens of the United States, and residents of Blue Canyon, in the county of Whatcom and State of Washington, have invented a new and Improved Snatch-Block, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in snatch-blocks which are made to open automatically by fastening to or forming on the rope which is used with the block an enlargement of some sort which upon engagement with the block will throw open the movable cheek and permit the rope to run off of the block.

This specification is a specific description of one of the forms of the invention, while the claims are definitions of the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side view of the invention. Fig. 2 is a vertical transverse section thereof. Fig. 3 is a fragmentary elevation showing the inside of the hinged cheek, and Fig. 4 is a section on the line 4 4 of Fig. 3.

a represents the sheave of the block, which is preferably a "patent" sheave.

b represents the pin.

The shell of the block is formed of an integral cheek-piece c at one side, and a cheek-piece at the other side which is formed in two sections (designated d and d' , respectively.) Of these sections d and d' the section d is hinged, so as to permit the rope to be engaged with or disengaged from the sheave.

e represents the strap of the block, which has a hinged section e' , corresponding to the section d of the sectional cheek-piece. This section e' of the strap e is hinged to the main part of the strap by a pin e^2 , which pin also passes transversely through the adjacent end of the pin b of the block. The section d of the sectional cheek-piece is fastened rigidly to and therefore forms part of the hinged section e' of the strap. Therefore the movement of the part e' of the strap will carry with it the part d of the cheek-piece. This move-

ment is illustrated by dotted lines in Fig. 2. For preventing the rope from running between the sheave and the shell of the block we provide guards in the form of wear-plates c' and d^2 , as shown. The strap e is strengthened by a brace i , suitably attached, as shown. A buffer k may be provided for the hinged part e' of the strap to prevent it from striking against the main part of the strap.

The becket or hook f of the block is attached through the medium of a swivel f' , if desired, to an arm G , which is pivoted on a pin g' , carried by the upper end of the rigid part of the strap e opposite the swinging part e' , and this arm g is capable of movement into the position shown by full lines in Fig. 2 or outward to the position shown by dotted lines in said view. A locking device is carried on this arm g in addition to the swivel f' of the hook f . This locking device comprises a finger-piece h , with a boss or hub h' thereon, which fits loosely on the arm g . This boss or hub is provided with a stud h^2 and also with a projection h^3 , disposed oppositely to the finger-piece h and serrated on its lower face, as indicated by dotted lines in Fig. 1. When the block is in closed position, the locking device occupies the position shown by full lines in Figs. 1 and 2, in which position the finger-piece h extends upward radially of the sheave, and the serrated projection h^3 projects downward just over the score of the sheave. This locking device may be thrown manually through the medium of the finger-piece h or automatically by the engagement of a member carried by the rope with the projection h^3 , either one of which operations will turn the locking device on the arm g and throw the stud h^2 from one position to the other. The upper or free extremity of the part e' of the strap of the block is provided with an opening e^2 , through which passes the boss or hub h' of the locking device, and the part e' of the strap is enlarged adjacent to the opening e^2 , so that an approximately semi-circular groove e^3 may be formed in the walls of the opening e^2 , as indicated in Fig. 4. In this groove e^3 the stud h^2 is adapted to lock. When the stud is in locked position, it lies in the middle of the groove, and the stud may be made to disengage the swinging section e'

of the strap by a rocking movement in either direction. The engagement may be effected also by a movement in either direction, so it follows that it is immaterial in which direction the locking device is rocked. It is sufficient to move the arm h or projection h^3 in either direction to open the snatch-block, and when it is desired to close the same the parts should simply be returned to their normal position.

The block may be put to all the uses to which an ordinary snatch-block may be put, and, further, it may be used to open itself automatically by fastening to the rope a device of any sort which will form an enlargement in the rope, or a knot may be made in the rope or a splice of any sort, so that it forms a sufficient enlargement over the ordinary diameter of the rope to strike the projection h^3 , and upon doing this the locking device will be thrown to release the rope and enable it to run off the sheave. This block is especially useful in lumbering where it is desired to drag a log to the sawmill over a circuitous path. At each turn in the path one of these blocks may be placed to guide the rope, and then as soon as the eye-splice in the end of the rope to which the log is attached engages the projection h^3 the block is automatically opened and the log moves on in a different direction to the next snatch-block, where the same operation is repeated, and so on until the end of the haul is reached.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A snatch-block, having a shell with a hinged part, a pin, a sheave mounted thereon, an arm supported on the stationary part of the shell, and a member arranged to turn on the arm and having a stud adapted to engage with the movable part of the shell, to hold the same, said member having a projection lying over the score in the sheave, the projection being arranged to be struck by a part of the rope automatically to open the block.

2. A snatch-block, having a shell and a strap attached thereto, the shell and strap having hingedly-mounted parts, a pin, a sheave mounted thereon, an arm carried by the stationary part of the strap, and a member arranged to turn on the arm and having a stud adapted to lock with the movable sections of the strap and shell, said member having an extension arranged to be engaged by a part of the rope, automatically to open the snatch-block.

3. A snatch-block, having a shell with a hinged section, a sheave mounted in the shell, and a locking device for the hinged section, the locking device comprising a member arranged to be engaged by the rope and turned thereby and having a stud adapted to engage with the said hinged section of the shell to lock or release the same according to the movement of said turning member.

4. A snatch-block, having a shell formed of two cheek-pieces, one of which is in two sections, a strap formed in two sections one of which is rigidly connected with the first-named cheek-piece and with one section of the sectional cheek-piece, and the other section of the strap being connected with the remaining section of the sectional cheek-piece, a pin mounted in the shell of the block, a sheave mounted on the pin, an additional pin passed through one end of the first-named pin and hingedly connecting the two sections of the strap, and a locking device for the hinged section of the strap.

5. A snatch-block, the shell of which is provided with a part movable to open the block and a locking device for said movable part, the locking device comprising a projection lying opposite the score in the sheave of the block, and a finger-piece projected outwardly, the said projection being operative by engagement with a part of the rope working on the block, and the finger-piece being adapted for manual operation.

6. A snatch-block, having a part of the shell movable to open the block, an arm pivotally mounted on a stationary part of the block, a becket carried on said arm, and a locking device also carried on the arm and working with the movable part of the shell of the block to releasably hold the same, the locking device having a projection lying opposite the score in the sheave of the block for releasing the locking device by engagement with a part of the rope.

7. A snatch-block, having a part of the shell movable to open the block, said movable part of the shell having an inclined surface thereon, and a locking device comprising a stud adapted to ride on said inclined surface to hold the movable part of the block.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

GUSTAVE AMUNDSON.
JESSE E. KNIGHT.

Witnesses:

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