March 14, 1933. A. B. ESSELTINE 1,901,498

SNATCH BLOCK

Filed April 21, 1930

Fig. 1

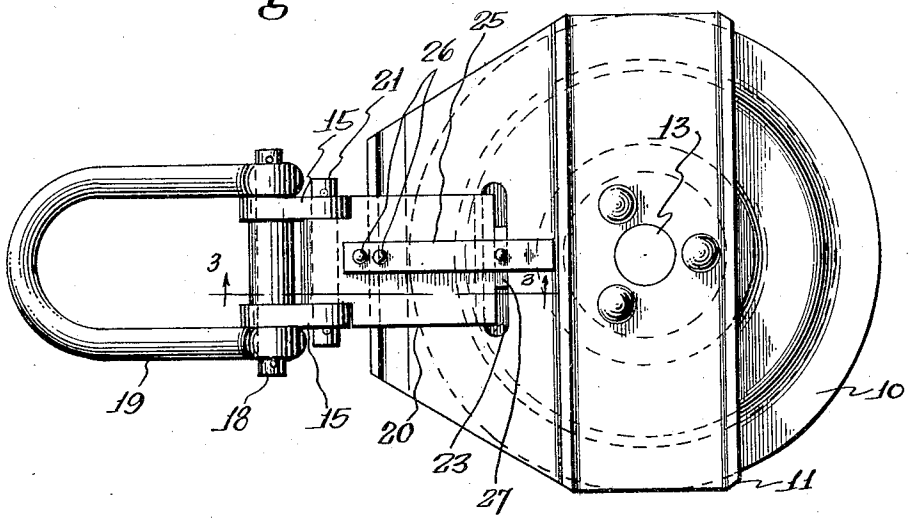


Fig. 2

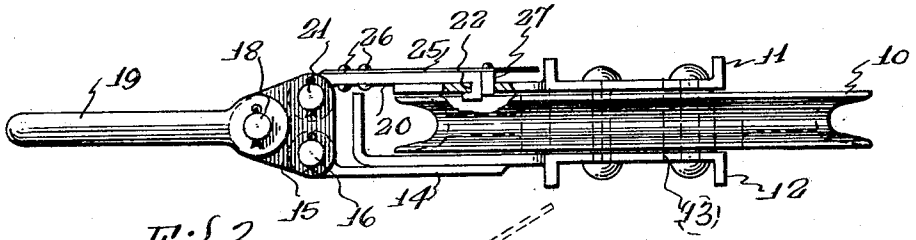
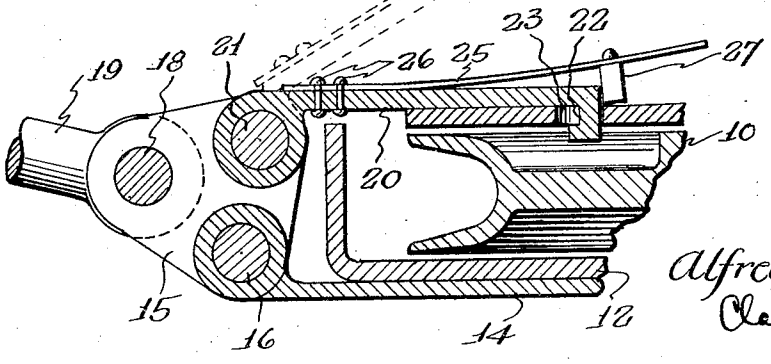


Fig. 3



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UNITED STATES PATENT OFFICE

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SNATCH BLOCK

Application filed April 21, 1930. Serial No. 445,949.

This invention relates to improvements in snatch blocks and has among other objects to provide a new and improved snatch block which may be positively locked in a closed position or readily opened.

My invention may be more readily understood with reference to the accompanying drawing wherein:

Figure 1 is a plan view of the device embodying my invention;

Figure 2 is a side elevation of the device shown in Figure 1 with parts broken away and in section; and

Figure 3 is an enlarged fragmentary sectional view taken on line 3—3 of Figure 1.

Like numerals refer to like parts throughout the several figures.

Referring now in particular to the drawing, my invention is applied to a sheave block of the quick opening and closing type commonly called a snatch block which includes a sheave 10 supported between cheek plates 11 and 12 on a shaft 13 fixed at its opposite ends in said cheek plates.

A member 14 is fixed to the cheek plate 12 and extends outwardly therefrom in a plane parallel with the plane of said cheek plate and has crossheads 15, 15 pivotally connected thereto on opposite sides thereof by means of a pin 16. A shouldered pin 18 is interposed between the crossheads 15, 15 and projects outwardly from each side thereof and has a clevis 19 connected to the outer ends thereof.

Referring now in particular to several of the novel features of my invention, the snatch block may be selectively closed or opened to allow a cable to be inserted therein or removed therefrom by means of a closure member 20. The closure member 20 is pivotally connected to the crossheads 15, 15 at one of its ends by means of a pin 21. An inwardly facing grooved end 22 is formed on the opposite end of the closure member 20 and is adapted to pass through an apertured portion 23 in the cheek plate 11 and engage said cheek plate; the width of the groove in said grooved end of said closure member being equal to the thickness of said cheek plate so that engagement of the cheek plate 11 by the groove in the grooved end 22 of the closure member 20 through the aperture 23 forms a means to hold said closure member to said cheek plate.

Means are provided to positively lock the closure member 20 to the cheek plate 11 or allow said closure member to be removed from said cheek plate, which means herein includes a leaf spring member 25 attached to the top side of said closure member by rivets 26 and extending along said closure member beyond the forward end thereof a sufficient distance to allow said spring member to be gripped by hand. A stop 27 is attached to the under side of the spring member 25 adjacent the end of the closure member 20 and is adapted to engage the apertured portion 23 of the cheek plate 11. The width of the stop 27 and distance from the inside edge of the groove in the grooved end 22 of the closure member 20 to the end of said closure member is equal to the width of the aperture 23 so that the block may not be opened when the grooved end 22 engages the cheek plate 11 and the stop 27 is inserted in the aperture 23 between the end of the closure member 20 and the forward side of said aperture.

It may thus be seen that when the groove in the grooved end 22 of the closure member 20 fully engages the cheek plate 11 through the aperture 23 that the stop 27 actuated by the leaf spring member 25 registers with said aperture and holds the grooved end 22 of the closure member 20 in engagement with said cheek plate. When it is desired to unlatch the closure member 20 and open the snatch block to insert or remove a rope therefrom, the spring member 25 is lifted and the stop 27 is disengaged from the aperture 23. The closure member 20 is then moved forwardly about the axis of the pin 16 to disengage the groove in the grooved end 22 of said closure member from the cheek plate 11 and allow said closure member to be opened. See Figure 3.

While I have herein shown and described one form in which my invention may be embodied, it will be understood that the arrangement of the various parts and the con-

struction thereof may be altered or changed without departing from the spirit or scope thereof. Furthermore, I do not wish to be construed as limiting myself to the specific embodiment illustrated, excepting as it may be limited by the appended claims.

I claim as my invention:

1. A snatch block having a plurality of cheek plates, a sheave supported between said cheek plates, a crosshead pivotally connected to one of said cheek plates, a closure member connected to said cross head and having selective locking engagement with said other cheek plate, and means for positively locking said closure member to said cheek plate comprising a spring member having a stop thereon engageable with said closure member and an apertured portion in said cheek plate.

2. A snatch block having a plurality of cheek plates, a sheave supported between said cheek plates, a crosshead pivotally connected to one of said cheek plates, a closure member connected to said cross head and having selective locking engagement with said other cheek plate, and means for positively locking said closure member to said cheek plate comprising a spring member fixed to said closure member, and a stop fixed to said spring member adjacent the end of said closure member and engageable with said closure member and an apertured portion in said last mentioned cheek plate.

3. A snatch block having a plurality of cheek plates, a sheave supported between said cheek plates, a crosshead pivotally connected to one of said cheek plates, a closure member connected to said cross head and having selective locking engagement with said other cheek plate, and means for positively locking said closure member to said cheek plate comprising a grooved portion on said closure member engageable with said other cheek plate, a spring member fixed to said closure member, and a stop fixed to said spring member adjacent the end of said closure member and engageable with said closure member and an apertured portion in said last mentioned cheek plate for holding said grooved portion in engagement with said last mentioned cheek plate.

4. A snatch block having a bottom cheek plate, a top cheek plate having an apertured portion formed therein, a sheave supported between said cheek plates, a crosshead having pivotal connection with said bottom cheek plate, a closure member pivotally connected to said crosshead at one end and having selective locking engagement with said top cheek plate at its other end, said closure member having a grooved portion formed on said end having locking engagement with said top cheek plate which grooved portion is adapted to pass through said apertured portion of said top cheek plate and engage said top cheek plate, and means for locking said closure member to said top cheek plate comprising a spring member having a stop thereon engageable with said closure member and said apertured portion in said top cheek plate.

5. A snatch block having a bottom cheek plate, a top cheek plate having an apertured portion formed therein, a sheave supported between said cheek plates, a crosshead having pivotal connection with said bottom cheek plate, a closure member pivotally connected to said crosshead at one end and having selective locking engagement with said top cheek plate at its other end, said closure member having a grooved portion formed on said end having locking engagement with said top plate which grooved portion is adapted to pass through said apertured portion of said top cheek plate and engage said top cheek plate, and means for locking said closure member to said top cheek plate comprising a spring member fixed to said closure member, and a stop fixed to said spring member adjacent the end of said closure member and engageable with said closure member and said aforementioned apertured portion in said top cheek plate.

6. A snatch block having a bottom cheek plate, a top cheek plate having an apertured portion formed therein, a sheave supported between said cheek plates, a crosshead having pivotal connection with said bottom cheek plate, a closure member pivotally connected to said crosshead at one end and having selective locking engagement with said top cheek plate at its other end, said closure member having a grooved portion formed on said end having locking engagement with said top cheek plate which grooved portion is adapted to pass through said apertured portion of said top cheek plate and engage said top cheek plate, and means for locking said closure member to said top cheek plate comprising a spring member fixed to said closure member and extending parallel therealong, and a stop fixed to said spring member adjacent the end of said closure member engageable with said closure member and said aforementioned apertured portion in said top cheek plate for holding said grooved portion of said closure member in engagement with said top cheek plate.

7. A snatch block having a sheave, means for permitting said snatch block to be selectively opened or closed with respect to said sheave comprising an apertured portion, a closure member having means thereon engageable with said apertured portion for holding said closure member in a closed position with respect to said sheave, and means for positively locking said closure member in a closed position with respect to said sheave comprising a yieldable member having a stop

thereon adapted to engage said closure member and aperture in said apertured portion.

8. A snatch block having a sheave, means for permitting said snatch block to be selectively opened or closed with respect to said sheave comprising an apertured portion, a closure member having means thereon engageable with said apertured portion for holding said closure member in a closed position with respect to said sheave, and means for positively locking said closure member in a closed position with respect to said sheave comprising a spring member having a stop thereon adapted to engage said closure member and aperture in said apertured portion.

9. A snatch block having a sheave, means for permitting said snatch block to be selectively opened or closed with respect to said sheave comprising an apertured portion, a closure member having means thereon engageable with said apertured portion for holding said closure member in a closed position with respect to said sheave, and means for positively locking said closure member in a closed position with respect to said sheave comprising a spring member fixed to said closure member, and a stop fixed to said spring member adjacent the end of said closure member, said stop being engageable with said closure member and aperture in said apertured portion.

10. A snatch block having a sheave, means for permitting said snatch block to be opened or closed with respect to said sheave comprising an apertured portion, a closure member having means thereon engageable with said apertured portion for holding said closure member in a closed position with respect to said sheave comprising a grooved portion on said closure member adapted to pass through the aperture in said apertured portion and engage said apertured portion, and means for positively locking said closure member in a closed position with respect to said sheave comprising a yieldable member having a stop thereon, said stop being adapted to engage said closure member and aperture in said apertured portion for holding said grooved portion of said closure member in engagement with said apertured portion.

11. A snatch block having a sheave, means for permitting said snatch block to be selectively opened or closed with respect to said sheave comprising an apertured portion, a closure member having means thereon engageable with said apertured portion for holding said closure member in a closed position with respect to said sheave comprising a grooved portion on said closure member adapted to pass through the aperture in said apertured portion and engage said apertured portion, and means for positively locking said closure member in a closed position with respect to said sheave comprising a yieldable member secured to said closure member, and a stop fixed to said yieldable member adjacent the end of said closure member, said stop being engageable with said closure member and aperture in said apertured portion for holding said grooved portion of said closure member in engagement with said apertured portion.

12. A snatch block having a sheave, means for permitting said snatch block to be selectively opened or closed with respect to said sheave comprising an apertured portion, a closure member having means thereon engageable with said apertured portion for holding said closure member in a closed position with respect to said sheave comprising a grooved portion on said closure member adapted to pass through the aperture in said apertured portion and engage said apertured portion, and means for positively locking said closure member in a closed position with respect to said sheave comprising a leaf spring member fixed to said closure member and extending along said closure member beyond the end thereof and a stop fixed to said leaf spring member adjacent the end of said closure member, said stop being engageable with said closure member and aperture in said apertured portion of said snatch block for holding said grooved portion of said closure member in engagement with said apertured portion.

Signed at Chicago, in the connty of Cook and State of Illinois, this 19th day of April, 1930.

ALFRED B. ESSELTINE.