June 5, 1928. 1,672,823

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FIDDLE SNATCH BLOCK

Filed Aug. 12, 1927

Fig. 1.

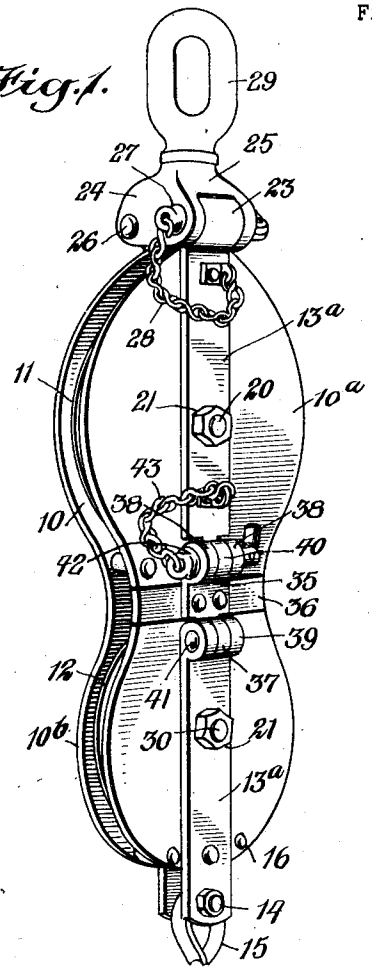


Fig. 2.

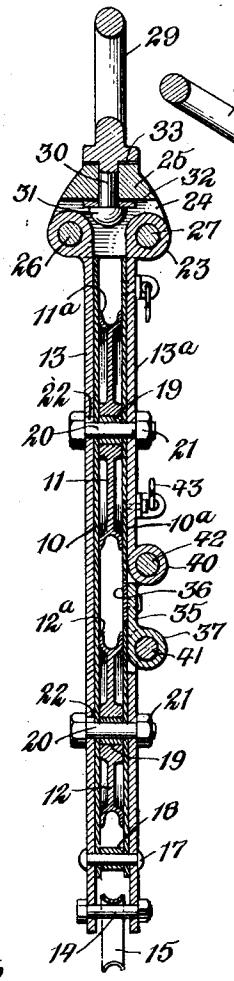


Fig. 3.

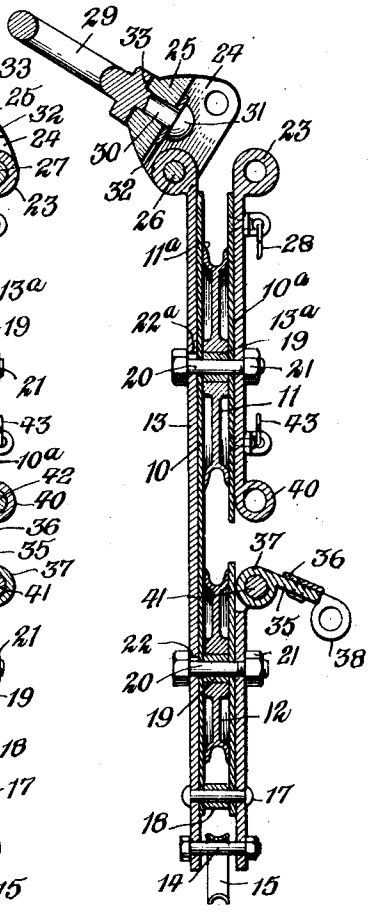


Fig. 4.

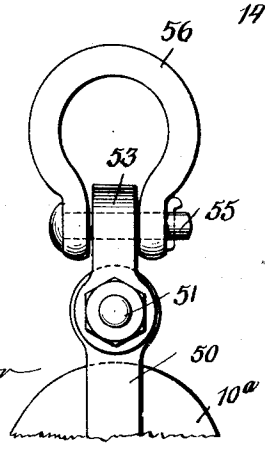
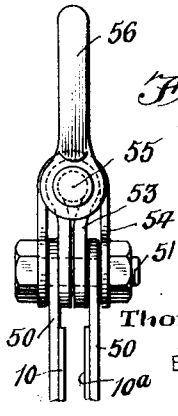


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

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FIDDLE SNATCH BLOCK.

Application filed August 12, 1927. Serial No. 212,517.

The present invention is concerned with the provision of a fiddle snatch block which may have a wide range of utility, but which is primarily intended to be used for the leads of both the main falls and topping lift on a hoisting derrick, taking the place of the two blocks now commonly employed.

Other and more general objects of the invention are to provide a block of this character which will be of extremely simple, practical construction which will be rugged, durable and efficient in use, capable of convenient manipulation and well suited to the requirements of economical manufacture.

With the above noted and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter set forth and pointed out in the claims. The invention may be more fully understood from the following description in connection with the accompanying drawings, wherein—

Fig. 1 is a perspective view of the fiddle snatch block embodying the present invention.

Fig. 2 is a longitudinal sectional view therethrough.

Fig. 3 is a view similar to Fig. 2, but illustrating the two gates open.

Fig. 4 is an elevational view showing a slightly modified type of head for the block.

Fig. 5 is an edge view of Fig. 4.

It is to be understood that the drawings are illustrative of certain preferred embodiments of the invention, but are not to be considered in a limiting sense. While the block herein illustrated and described is of metal construction, other suitable materials might be utilized.

Referring first to Figs. 1 to 3 inclusive of the drawings I have used the reference characters 10 and 10ª to designate the spaced parallel, generally fiddle shaped side plates or cheek plates of the block between which are mounted an upper sheave 11 and lower sheave 12 preferably of different sizes.

Each cheek plate is materially strengthened and reinforced by a longitudinally extending strap rigidly secured against its outer face. Strap 13 of the cheek plate 10 and strap 13ª of the cheek plate 10ª extend at their lower ends beyond the lower ends of the plates and are connected by a cross bolt 14 to form a becket which may be used for tricing when the block is used for leads and for the standing part when the block is used for tackle. The bolt 14 carries an eye or thimble 15 through which a line may be triced.

The cheek plates 10 and 10ª may be firmly riveted together as at 16 and are additionally secured by rivets 17 passed through the cheek plates and straps and through spacers 18 arranged between the cheek plates.

The sheaves 11 and 12 rotate on bearing bushings 19, these bushings encircling stationary axle bolts 20 passed through the cheek plates and straps and held by nuts 21. Preferably each axle bolt 20 is formed with a key 22 received in a recess 22ª in the strap 13, so that the axles of the sheaves are positively held against rotation.

The use of the headed axle bolts and their associated nuts lend rigidity to the construction adjacent the sheave bearings.

The sheaves are well rounded as at 11ª, 12ª and the cheek plate edges are rounded as at 10ᵇ so that there is no danger of tearing or scraping a line on the edges of the sheaves or plates.

The upper end of each strap projects beyond the upper end of its associated cheek plate and is formed with an integral or welded eye 23. These eyes are straddled by the depending parallel flanges 24 of a head 25; the flanges 24 being apertured for alignment with the eyes 23. A pivot pin 26 is passed through one of the eyes 23 and the associated apertures in the flange 24, while a removable locking pin 27 passes through the other eye 23 and its aligned flange apertures. By removing the locking pin 27, the head 25 may be tilted from the position of Fig. 2 to the position of Fig. 3, providing a gate which materially facilitates reeving of the upper sheave 11. Preferably the locking pin 27 is carried on a chain 28 so that it is retained against loss when the head has been tilted to the position of Fig. 3.

Preferably the head is swivelly joined to an oval eye 29, this eye including a shank 30 which passes through the head 25 between the flanges 24 and is upset as at 31 over a shank encircling washer 32. The shank is also shouldered at 33 for engagement with

the upper flat surface of the head so that the eye 29 may have no movement relatively to the head other than a swivelling movement.

The strap 13ª is of sectional formation as is the cheek plate 10ª in order to provide a second gate between the upper and lower sheaves. The numeral 35 has been used to designate the short central section of the strap 13ª, strap section 35 carrying a corresponding cheek plate section 36. The two ends of the relatively short strap section 35 are formed with eyes 37 and 38 aligned with eyes 39 and 40 formed at the ends of the adjacent sections of the strap 13ª. A hinge pin 41 permanently connects the aligned eyes 37 and 39, while a removable locking pin 42 is passed through the aligned eyes 38 and 40, this pin being anchored by a chain 43 so that it cannot be lost when it is removed to permit the gate 35, 36 to swing downwardly.

A line is prevented from escaping from the upper sheave by the head flanges 24 which straddle the mortise above the sheave and act as guards. The rivets 17 prevent displacement of a line trained over the lower sheave.

By virtue of the foregoing construction a single fiddle snatch block may be used for the leads of both the main falls and the topping lift to the winch on a hoisting derrick, thereby eliminating the two blocks presently employed. By having a snatch opening for both the upper and lower sheaves the block may be used for either a single or double lead. The topping lift may be run over the upper sheave, and the main falls over the lower, or vice versa. Two fiddle blocks may be used for either topping lifts or main falls in place of two double blocks as a tackle. The fiddle snatch blocks may be used with either a single, double or triple block as a tackle when it becomes necessary to increase the purchase. The manner of operation when reeving a block will be readily apparent from the foregoing description from which it will be noted that the removal of either locking pin 27 or 42 permits the opening of an associated gate and the ready application of lines to, or removal of lines from the upper and lower sheaves.

In Figs. 4 and 5 I have illustrated a slightly modified type of head in use in which the upper ends of straps 50 corresponding to the straps 13, 13ª and provided with aligned eyes for the reception of a pivot bolt 51. Straps 53 and 54 of substantially U-shape include apertured ends aligned with the eyes of the straps 50 and receiving the pivot bolt 51. The ends of the strap 53 are straddled by the strap ends 50, while the ends of the strap 54 straddle the strap ends 50. The intermediate portions of the straps 53 and 54 lie against each other and encircle a second pivot pin 55 disposed at right angles to the bolt 51 and providing a mounting for a clevis or shackle 56. By virtue of this construction, two pivotal adjustments at right angles to each other are had and substantially a universal connection provided between the snatch block and its head.

Obviously various changes and alterations might be made in the general form and arrangement of the parts described without departing from the invention. Hence I do not wish to limit myself to the details set forth, but shall consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

I claim:

1. As a new article of manufacture, a fiddle snatch block including spaced rigidly connected cheek plates, upper and lower sheaves arranged between the cheek plates, one of the plates including a hinged gate section disposed between the two sheaves.

2. As a new article of manufacture, a fiddle snatch block including spaced rigidly connected cheek plates, upper and lower sheaves arranged between the cheek plates, one of the plates including a hinged gate section disposed between the two sheaves, and a head pivotally connected to one plate and removably locked to the other whereby it constitutes a hinged gate for the upper sheave.

3. As a new article of manufacture, a fiddle snatch block including spaced rigidly connected cheek plates, upper and lower sheaves arranged between the cheek plates, one of the plates including a hinged gate section disposed between the two sheaves, and longitudinally extending reinforcing straps fixed to the outer faces of the plates and extending beyond the ends thereof.

4. As a new article of manufacture, a fiddle snatch block including spaced rigidly connected cheek plates, upper and lower sheaves arranged between the cheek plates, one of the plates including a hinged gate section disposed between the two sheaves, longitudinally extending reinforcing straps fixed to the outer faces of the plates and extending beyond the ends thereof, the projecting upper ends of the strap defining eyes, and a head attached to the eyes.

5. As a new article of manufacture, a fiddle snatch block including spaced rigidly connected cheek plates, upper and lower sheaves arranged between the cheek plates, one of the plates including a hinged gate section disposed between the two sheaves, longitudinally extending reinforcing straps fixed to the outer faces of the plates and extending beyond the ends thereof, the projecting upper ends of the strap defining eyes, and a head attached to the eyes, the

head including flanges straddling the eyes pivoted to one eye and detachably locked to the other, whereby the head constitutes a second hinged gate.

6. As a new article of manufacture, a fiddle snatch block including spaced rigidly connected cheek plates, upper and lower sheaves arranged between the cheek plates, one of the plates including a hinged gate section disposed between the two sheaves, and longitudinally extending reinforcing straps fixed to the outer faces of the plates and extending beyond the ends thereof, one strap including a short pivoted section normally locked against pivotal movement and carrying the aforementioned gate section of the associated cheek plate.

Signed at New York city, in the county of New York and State of New York, this 10th day of August A. D. 1927.

THOMAS A. McMILLLAN.