(No Model.)

T. R. FERRALL.

SNATCH BLOCK.

No. 265,588. Patented Oct. 10, 1882.

Fig. 1.

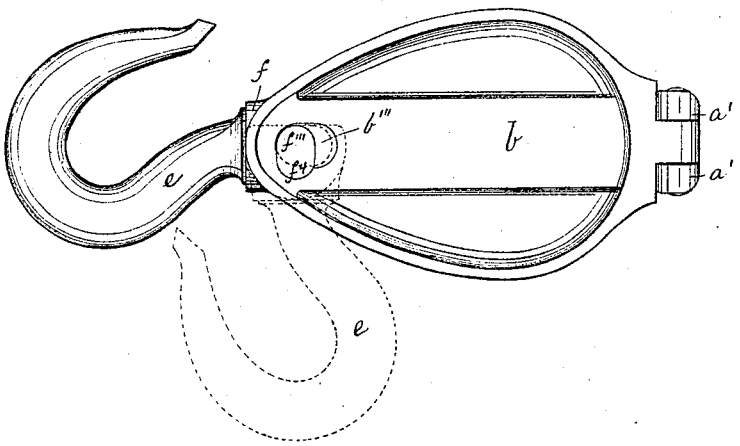


Fig. 2.

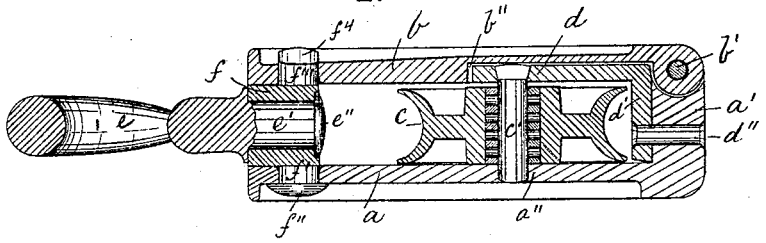
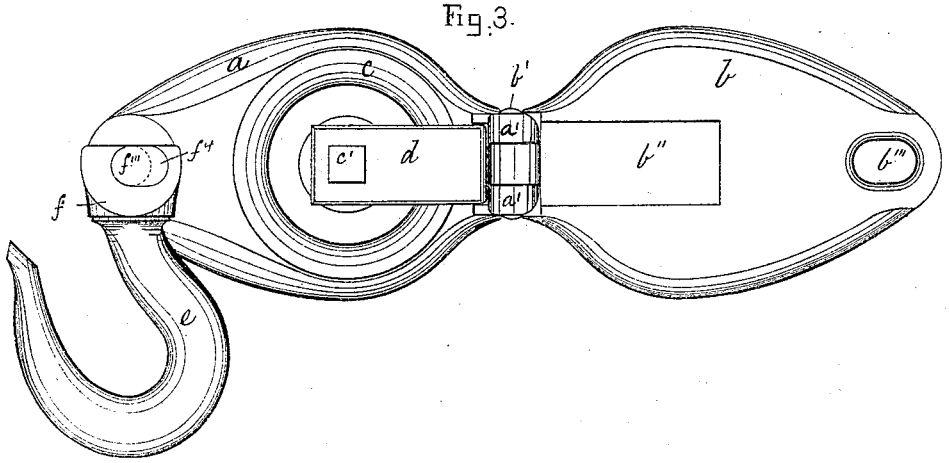


Fig. 3.



Witnesses.

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Sarah M. Goodrich.

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UNITED STATES PATENT OFFICE.

THOMAS R. FERRALL, OF BOSTON, MASSACHUSETTS.

SNATCH-BLOCK.

SPECIFICATION forming part of Letters Patent No. 265,588, dated October 10, 1882.

Application filed June 7, 1882. (No model.)

To all whom it may concern:

Be it known that I, THOMAS RICHARD FERRALL, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Snatch-Blocks; and I do hereby declare that the same are fully described in the following specification and illustrated in the accompanying drawings.

This invention relates to improvements on the patent granted to me for snatch-blocks under date December 7, 1880; and it has for its object to do away with the link shown in said patent, and thus to prevent the rope from being caught in the block, and also to enable the block to be opened for putting the rope around the sheave without interfering with the pin and bearing for such sheave. By my improved construction I am enabled to use a larger sheave in the same size of shell as compared with the old kinds of snatch-blocks, and thus I am enabled to use my improved snatch-block for any purposes for which an ordinary block is used, in addition to its use as a snatch-block. This my improved snatch-block is equally well adapted for wood or metal cases.

The invention is carried out as follows, reference being had to the accompanying drawings, in which—

Figure 1 represents a front view of the improved snatch-block in a closed position, ready for use, and showing in dotted lines the hook turned at right angles to enable the block to be opened for the insertion of the rope. Fig. 2 represents a central longitudinal section of the block when in use, and Fig. 3 represents a plan view of the improved block when unlocked for the insertion or removal of the rope.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

The shell or case of the improved snatch-block is composed of the rear plate, *a*, having a right-angled bottom piece or projection, *a'*, to the upper end of which is hinged, at *b'*, the front plate, *b*, as shown in the drawings.

c represents the sheave, allowed to run loosely on the pin *c'*, which has a bearing at *a''* through a perforation in the rear plate, *a*, and in the opposite end in a bearing plate or strap, *d*, having a right-angled foot-piece, *d'*, in its lower end, which is preferably riveted by means of a rivet, *d''*, to the lower projection, *a'*, of the rear plate, *a*, as shown in Fig. 2.

On the inside of the hinged front plate, *b*, is made a recess, *b''*, for receiving into it the bearing plate or strap *d* when the block is locked to its working position, as shown in said Fig. 2.

e is the hook, and *e'* is its shank, which passes loosely through a perforation in the swinging head *f*, to which it is connected by means of its riveted end *e''*, so as to secure the hook *e* to said head *f*, and at the same time to allow it to swing freely around its axis. The swinging head *f* has on one side a circular projection, *f'*, which passes loosely through a perforation in the upper end of the rear plate, *a*, and is afterward riveted to it at *f''*, as shown in Fig. 2, in such a manner as to enable the circular projection *f'* to turn freely around its axis within the perforation in the upper end of the rear plate, *a*. The swinging head *f* is provided in its opposite end with a circular projection, *f'''*, terminating in its outer end as a lip or side projection, f^4, located thereon at a right angle, or nearly so, to the axial line of the hook-shank *e'*, as shown in the drawings.

Through the upper end of the hinged front plate, *b*, is made a slotted perforation, *b'''*, lengthwise of said front plate, as shown in Figs. 1 and 3, by means of which the front plate, *b*, may be disengaged from the swinging head *f* by turning the latter and its hook *e* at a right angle, or nearly so, as shown in dotted lines in Fig. 1 and full lines in Fig. 3, when the lip or projection f^4 coincides with the slotted perforation *b'''* in the front plate, *b*, thus allowing the latter to be swung back freely on its hinge *b'* to the position shown in Fig. 3, so as to place the rope on the sheave *c* or to remove it therefrom, as the case may demand. After the rope is placed over the sheave *c* the front plate, *b*, is swung back on its hinge *b'* and closed over the sheave, after which the hook *e* is swung from the position shown in full lines in Fig. 3 and dotted lines in Fig. 1 to the position shown in full lines in Figs. 1 and 2, causing the side lip or projection, f^4, to project outside of and on one side of the slotted opening *b'''* on the front plate, *b*, and by this means to keep the front plate, *b*, locked to the

swinging head *f* as long as the block is in use. In this manner I obtain a very simple, strong, and durable snatch-block, composed of a very few parts, and so constructed as to never disturb the pin or bearing of the sheave during the opening or closing of the block, and consequently, as the bearing plate or strap *d* is entirely protected by the front plate, *b*, when the block is in use, all liability of crowding such bearing against the side of the sheave and preventing its free rotation at all times around its pin is entirely obviated, and by the absence of a hinged link between the upper end of the front plate, *b*, and the swinging head *f*, and by inclosing the sheave *c* between the plain surfaces of the front and rear plates, *b a*, as shown and described, all danger of catching of the rope is removed.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. In a snatch-block, the hook *e e'* and head *f*, in combination with the rear plate, *a*, and the bottom projection, *a'*, hinged at *b'* to the front plate, *b*, the latter being adapted to connect and disconnect from the lock f^4 on the hinged head *f*, and to serve as a shield and protector for the sheave *c*, as and for the purpose set forth.

2. In a snatch-block, the rear plate, *a*, with its lower projection, *a'*, hinged to the front plate, *b*, in combination with the bearing bracket or strap *d* for the spindle *c'*, and recess *b''* on the inside of plate *b*, as and for the purpose set forth.

3. In combination, the hook *e*, shank *e'*, swinging head *f f' f''*, and locking-lip f^4, the rear plate, *a*, with its lower projection, *a'*, the front plate, *b*, hinged at *b'* to the piece *a'*, and having slot-hole *b'''* in its upper end, the independent bearing bracket or strap *d d'*, spindle *c'*, and sheave *c*, combined and arranged as and for the purpose set forth.

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

THOMAS RICHARD FERRALL.

Witnesses:
ALBAN ANDRÉN,
HENRY CHADBOURN.