(No Model.)

G. A. FORD.

SNATCH BLOCK.

No. 271,620. Patented Feb. 6, 1883.

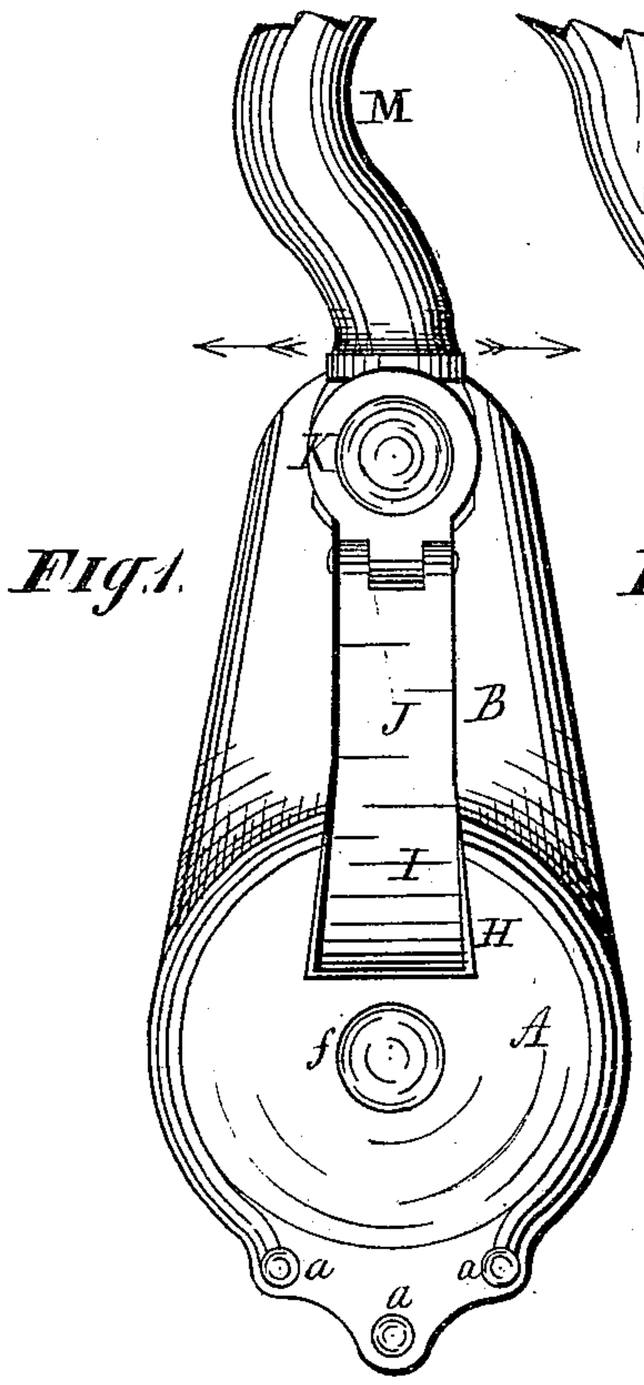

Fig. 1.

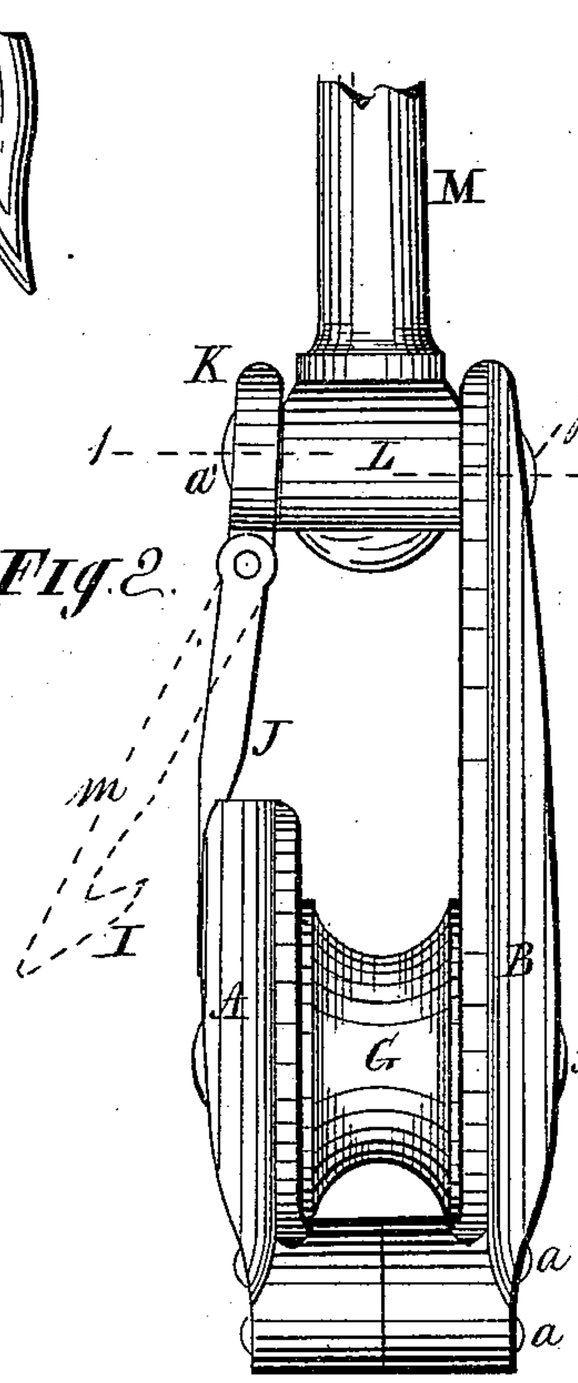

Fig. 2.

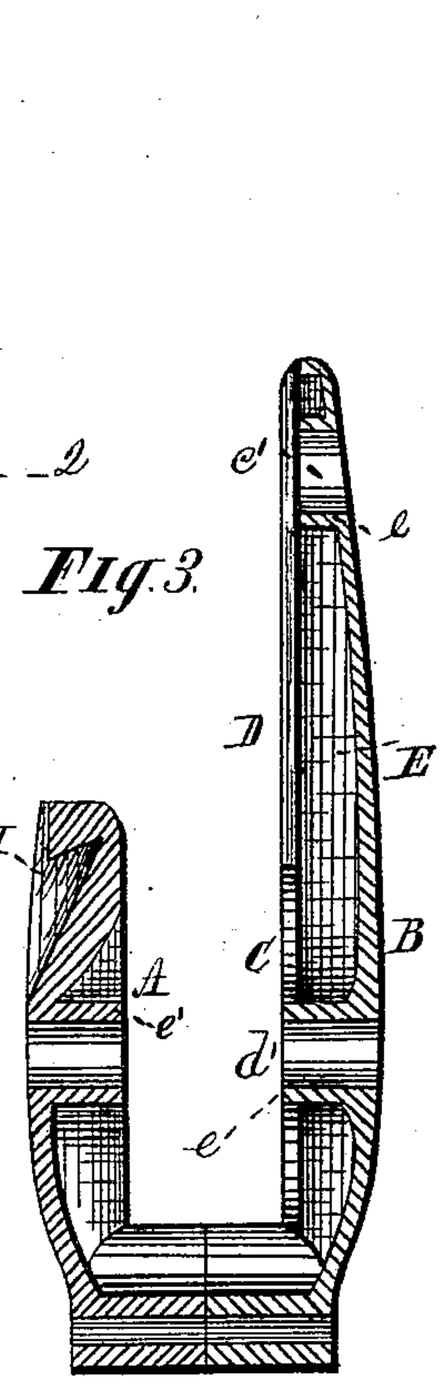

Fig. 3.

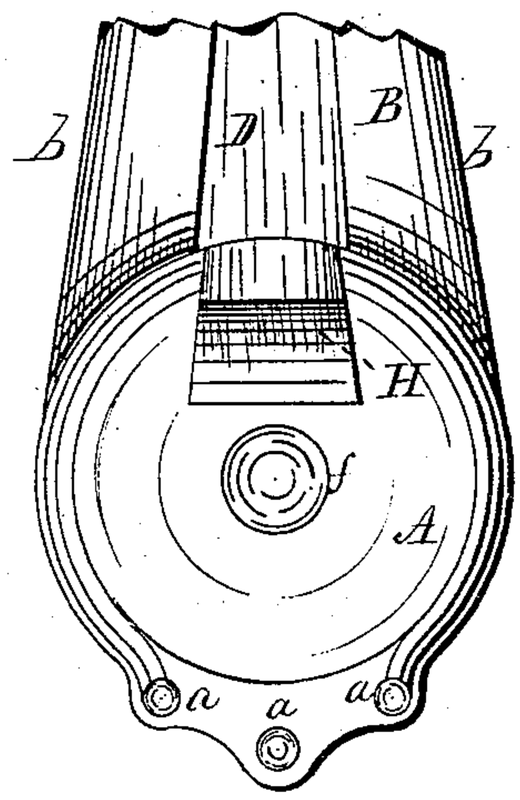

Fig. 4.

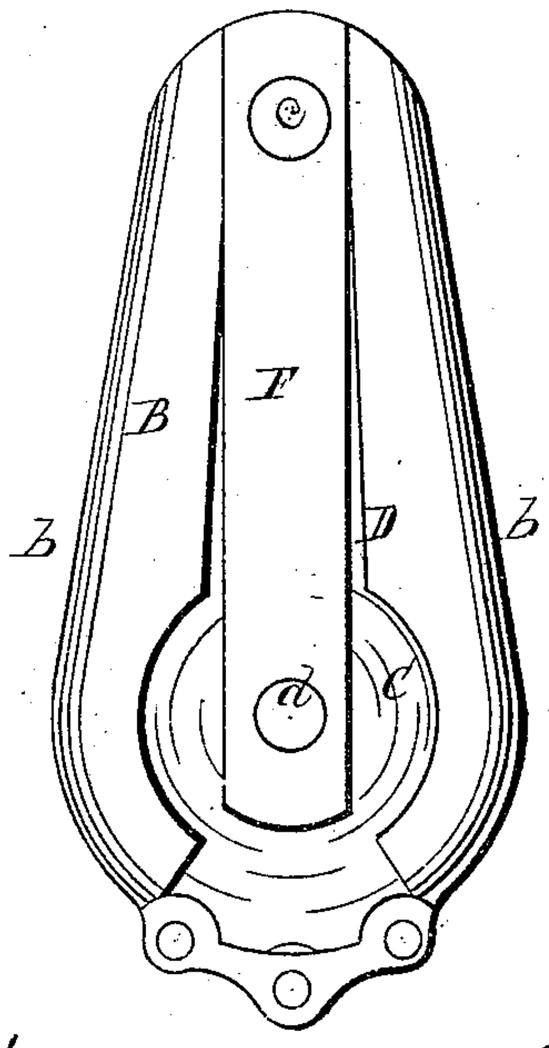

Fig 5.

Fig. 6.

Witnesses.
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Geo. A Ford
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Atty

UNITED STATES PATENT OFFICE.

GEORGE A. FORD, OF CLEVELAND, OHIO, ASSIGNOR TO THE CLEVELAND BLOCK COMPANY, OF SAME PLACE.

SNATCH-BLOCK.

SPECIFICATION forming part of Letters Patent No. 271,620, dated February 6, 1883.

Application filed September 26, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. FORD, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and Improved Snatch-Block; and I do hereby declare that the following is a full, clear, and complete description thereof.

The snatch-block above alluded to is constructed substantially as follows and operated as hereinafter described, reference being had to the drawings accompanying this specification, making part of the same.

Figure 1 of the drawings represents a side view of the snatch-block; Fig. 2, an edge view thereof; Fig. 3, a vertical section of the shell of the block; Fig. 4, a side view of a section of the block; Fig. 5, an inside view of a detached section, and Fig. 6 a detached view in detail of the block.

Like letters of reference refer to like parts in the several views.

The shell of the snatch-block above referred to consists of two sections, A and B, connected to each other at the lower end by bolts *a*.

Section B of the shell is hollow, as seen in Fig. 3, the outer wall of which has a convex unbroken surface, whereas the plane of the inner side or wall is broken by the two openings D C. The section on each side of said openings is hollow, as seen at E in Fig. 3, the hollow being formed by the outer wall of the section and the inward-turned sides *b b*. Between the edges of said sides is fitted a strap, F, having therein holes *c* and *d*, corresponding to the holes *c'* and *d'* in the side B of the shell. Said holes are re-enforced by hubs or bosses *e*, as seen in Fig. 3.

Section A of the shell of the snatch-block consists of a convex cheek corresponding to the lower part of section B of the shell, as shown in the drawings. The inner side of the cheek is concave or incavated and provided with a boss, *e'*, in which is a hole corresponding to the hole *d'* for the admission of the shaft *f* of the sheave G. In the upper edge of the outer side of the said cheek is a notch, H, Figs. 3 and 4, adapted to receive the hook I, terminating the end of the arm J, Fig. 2. Said arm is hinged to a ring, K, loosely secured to a trunnion, *a'*, projecting from the side of the head L, in which the swivel-hook M of the snatch-block is secured, as shown in the drawings, Figs. 1 and 2. In like manner the head is secured to section B of the shell by a trunnion, *g*, so that said head may be easily and readily turned in direction of the arrows for a purpose presently shown.

It will be observed on examination of Fig. 2 that the axial line of the trunnion *a'* is not in alignment with the axial line of trunnion *g*, as indicated by the dotted lines 1 and 2, the one being above the other, so that the axial movement of the ring K is eccentric to the axial movement of trunnion *g*. Hence when the head L is turned on the trunnion the ring, together with the arm J, will be thrown upward or downward for hooking or unhooking the arm J from the block, that it may be thrown outward therefrom, as indicated by the dotted lines *m*. Practically the operation of the above-described snatch-block is as follows:

As shown in Figs. 1 and 2, the hook I is caught in the notch H, so that the arm J, together with the cheek or section A of the shell, form one side of the block. In this condition of the block the swivel-hook M is upward and the axial line of the trunnion *a'* is above that of trunnion *g*. Now, in order to catch a rope in the block, both ends of which rope are supposed to be made fast respectively to some object, the hook I must be disengaged from the notch H, so that the arm J may be pulled outward to permit the rope to pass in between the cheek A and the head L to the sheave G. To this end the hook M may be turned either way indicated by the arrows, as may be convenient. This, by virtue of the axial line 1 being eccentric to the axial line 2, will push downward the arm J so far that the hook I may be pulled out from the notch, as indicated by the dotted lines *m*, which can now be turned upward far enough to allow the rope to pass into the sheave, which, when done, the hook I is again brought down to the notch and the swivel-hook then turned upward, which will draw the bar *b* of the hook I into the corresponding cavity of the notch, and thereby prevent the arm from being pushed out therefrom by any pressure of the rope thereby retained between said arm and section B of the shell of the

block. The arm J at the same time serves to form a side to the block, whereon it may rest and be prevented from becoming caught and tangled in any way with ropes or other obstructions over which it may happen to be drawn.

The strap F, above alluded to, is intended to be used in blocks of large size as a re-enforcement to the shell thereof. To this end it is placed on the inside of section B, as shown in Fig. 5, so that the shaft of the sheave and the trunnion *g*, respectively, will pass through the holes *c* and *d*.

It will be obvious that the strap thus arranged in the block will sustain a part of the strain to which the block may be subjected, and thereby relieve the shell more or less, as the case may be.

It is preferred to use the smaller snatch-blocks without the strap, as seen in Fig. 3; also, in the larger-sized blocks I propose to substitute for the notch H a wrought-iron plate secured to the inside of the cheek and provided with a catch or notch adapted to engage the hook I. For smaller blocks the notch H, herein shown and described, is preferred, as the same is sufficiently strong for all small and medium-sized blocks.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In snatch-blocks, in combination with sections A and B of the block, arm J, and ring, the swivel-hook head L, provided with trunnions arranged eccentrically in relation to each other, substantially as described, and for the purpose specified.

2. In snatch-blocks, the combination of sections A and B, said section B having an outward unbroken convex surface, and the inner face thereof broken by openings, on each side of which the section is hollow, strap F, eccentrically-pivoted head, and shaft of the sheave, constructed and arranged substantially as described, and for the purpose set forth.

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

GEORGE A. FORD.

Witnesses:
W. H. BURRIDGE,
J. H. BURRIDGE.