(No Model.) 2 Sheets—Sheet 1.

J. W. SHARRETT.

GUIDE FOR SAIL RIGGING.

No. 279,985. Patented June 26, 1883.

Fig 1.

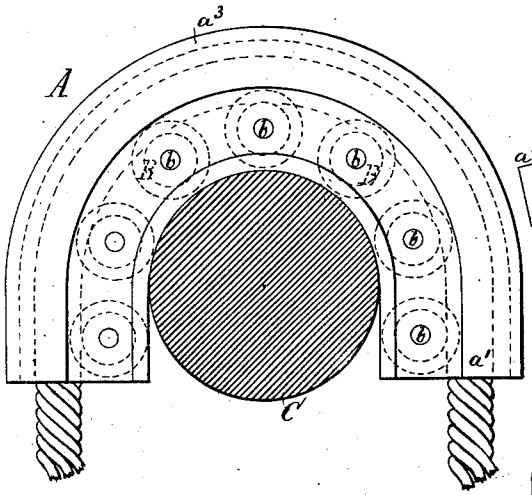


Fig 3.

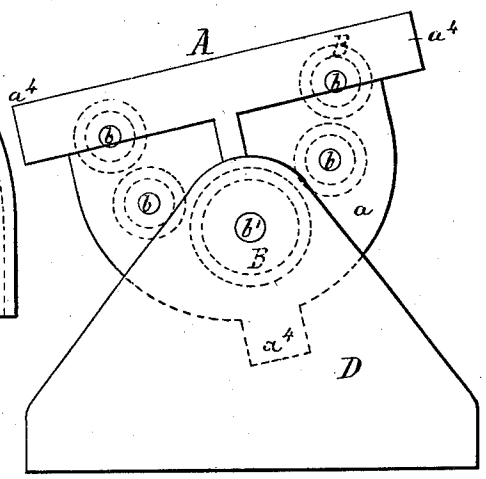


Fig 2.

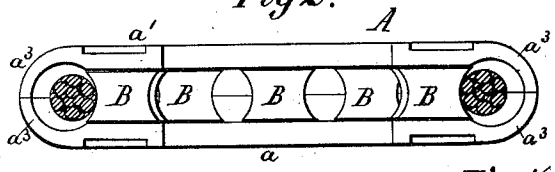


Fig 4.

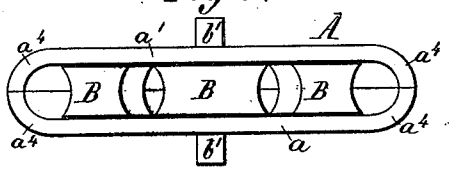


Fig 5.

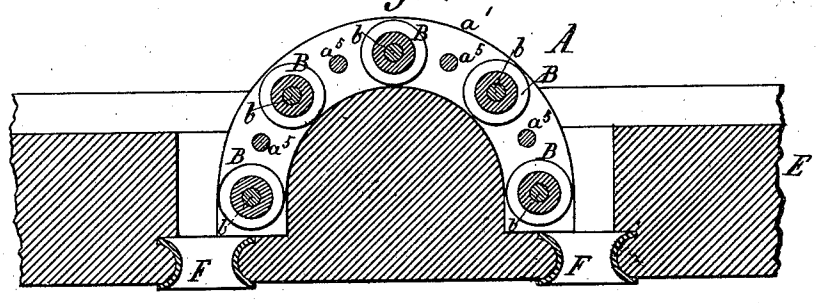
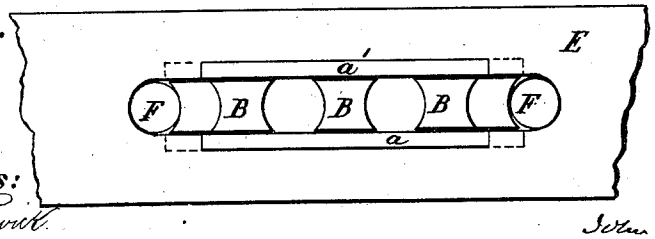


Fig 6.



Witnesses:

P. C. Tenwick.

J. P. Theo. Lang.

Inventor:

John W. Sharrett
by his Attys
Pennie & Lawrence

(No Model.) 2 Sheets—Sheet 2.

J. W. SHARRETT.

GUIDE FOR SAIL RIGGING.

No. 279,985. Patented June 26, 1883.

Fig 7.

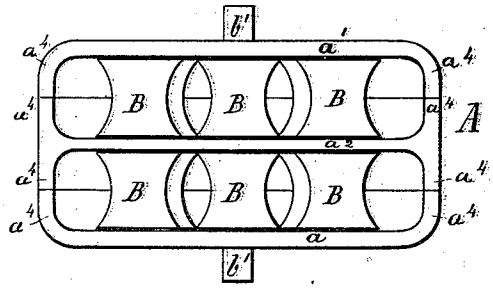


Fig 8.

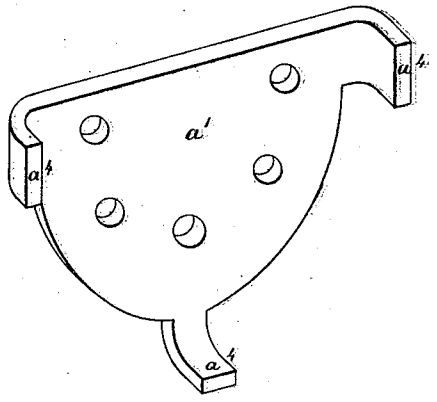


Fig 10.

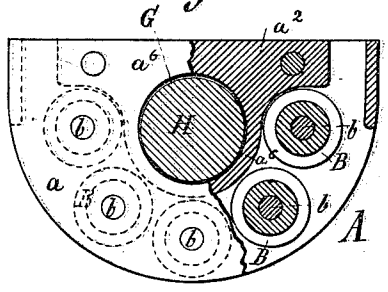


Fig 9.

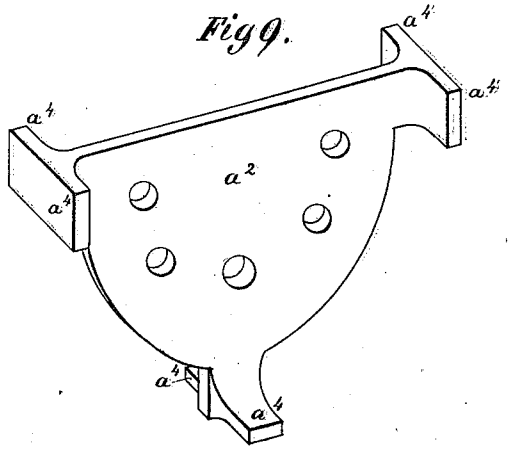


Fig 11.

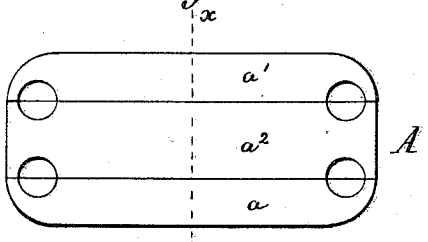
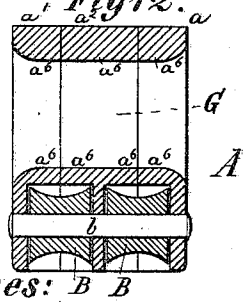


Fig 12.



Witnesses: B B

B. C. Fenwick.

J. P. Theo. Lang.

Inventor

John W. Sharrett
by his Att'y's
Pruett & Lawrence

UNITED STATES PATENT OFFICE.

JOHN W. SHARRETT, OF PORTSMOUTH, VIRGINIA.

GUIDE FOR SAIL-RIGGING.

SPECIFICATION forming part of Letters Patent No. 279,985, dated June 26, 1883.

Application filed October 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. SHARRETT, a citizen of the United States, residing at Portsmouth, in the county of Norfolk and State of Virginia, have invented a new and useful Improvement in Guides for Sail-Rigging, of which the following is a specification.

My invention relates to improvements in rigging-blocks, in which, instead of the circular sheave or pulley, I use a number of guide-rollers arranged in a semicircle or segment of a circle, which rollers so arranged occupy but one-half the space required by the old sheave or pulley, while the cost of the blocks will be reduced.

In the accompanying drawings, Figure 1 is an elevation of one of my improved blocks with rope around its rollers, and represented as riding upon a spar or yard-arm, the latter being shown in section. Fig. 2 is a bottom view of the same, having its rope shown in section. Fig. 3 is an elevation of a deck-block constructed with guide-rollers, and shown swinging on a pivot in a stationary frame or stand. Fig. 4 is a top view of the same. Fig. 5 is a longitudinal section of a spar having one of my improved blocks inserted therein. Fig. 6 is a top view of the same. Fig. 7 is a top view of a deck-block similar to that shown in Fig. 3, but having a double set of semicircularly-arranged guide-rollers. Fig. 8 is a perspective view of one of the cheeks or outer portions of said block. Fig. 9 is a perspective view of the inner or partition plate of the same. Fig. 10 is an elevation of a traveling block with guide-rollers, and adapted to move on a guide-rail, which is shown in section. In this view a portion of the casing or shell of the block is broken away and the exposed rollers shown in section. Fig. 11 is a top view of the same, and Fig. 12 is a vertical section of the same in the line $x\ x$ of Fig. 11.

Similar letters refer to similar parts throughout the several views.

The block A in Figs. 1 and 2 consists of a divided shell, $a\ a'$, of semicircular form, and a number of rollers, B, fastened between said shell by means of their shafts b, and arranged in a semicircular curve as shown. The shell $a\ a'$ may be of open or closed or partly open and closed construction, as circumstances may require.

In Figs. 1 and 2 the cheeks or parts $a\ a'$ of the shell are shown as being formed with a curved rim, a^3, whereby the back or outer side of the block is closed up, and whereby also the parts $a\ a'$ are kept at a proper distance from each other. This construction of blocks is adapted specially for use on spars, upon which the blocks are made to ride, as illustrated in the drawings, Fig. 1, wherein the spar C is shown in cross-section; and thus applied the block may rock and yield to the inclination of the rope or brail passing through it, or it may be moved longitudinally upon the spar to be placed in the most advantageous position for the operation of the brail.

In Fig. 3 the block A is shown pivoted at b', by one of the roller-shafts, to a stationary stand, D, on the deck of the ship, and it has thus a chance to swing freely to either side in following the boom, which is tacked by this means instead of by the old traveler-block. The cheeks or parts $a\ a'$ of this block (shown in Figs. 3 and 4) are formed at top with ears a^4, which bear against each other and serve as stays for keeping the cheeks $a\ a'$ at a proper distance from each other. In Fig. 5 the cheeks or parts $a\ a'$ are shown as held separate by means of stays a^5, of ordinary construction. These might be dispensed with if the pins b are formed with shoulders. This block, provided with rollers B, is permanently fastened into the end of a spar, E, in a longitudinal position, and it holds or guides the ropes or sheets used for operating the sails. The lower side of the spar E may be protected against the cutting action of the rope by metal thimbles or ferrules F.

In cases where it becomes necessary to use more than one semicircular set of rollers B, they may be arranged side by side, as are the circular sheaves in the ordinary blocks, or as represented in Fig. 7, one set of shafts, b, answering for the two, or several sets of rollers B. In this block, Fig. 7, a middle part or partition, a^2, is used in conjunction with the cheeks or outer parts, $a\ a'$, of the block, and this middle part, a^2, is provided with ears a^4 on either side, which are constructed to meet the ears a^4 of the outer parts, $a\ a'$, as shown in Figs. 7, 8, and 9.

For the ordinary traveling block used in tacking the boom I substitute a block, A, as

shown in Figs. 10, 11, and 12, provided with the rollers B. This block is provided with a central aperture, G, by means of which it travels upon a rail or rod, H. (Shown in section in Fig. 10.) The respective parts a a' a^2 of the shell or casing are in this block provided with an inner rim, a^6, whereby the aperture G is formed and the parts are kept a proper distance apart from each other. In all of the above-described constructions the shafts b of the rollers B are passed through the shells or casings of the blocks and riveted at their ends; but, if desired, the shafts may be provided with suitable shoulders or stops, in order to assist the rims a^3 or ears a^4 in keeping the parts of the shells at a proper distance from one another, as described. In lieu of the riveted ends of shafts b, other suitable means of fastening may be adopted, such as screw-threaded ends and nuts or key-pins, as deemed most advisable.

The construction of a block with a semicircularly-arranged series of small guide-rollers has important advantages over the use of one sheave, inasmuch as it does away with the heavy side wear encountered with the one sheave, whereby block and rope are injured; and, inasmuch as the block takes less room, it is cheaper to construct and is more easily adapted to its various uses than the ordinary block now in use.

I am aware of the Letters Patent No. 67,540, and therefore do not claim a series of rollers having straight sides, and confined at their ends to flat segmental plates, and such rollers and plates being applied to the spar in such a manner as to admit the sail rolling inside between the spar and the rollers, as described and represented in said patent. I also am aware of Letters Patent No. 179,126, which represents an ordinary style of single or double pulley-block with a peculiarly-constructed frame, and therefore I do not claim anything shown in said patent; but

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

1. The combination of guide-rollers having concave peripheries, and arranged in a segment of a circle, with a rigging-block shell, A, provided with a passage between the rollers and the outer inclosing portion of the shell, through which the rope or brail passes, substantially as and for the purpose described.

2. The combination of sets of guide-rollers having concave peripheries and riveting-axles, and arranged in segments of circles, with a rigging-block shell, A, consisting of the sections a a' a^2, having ears a^4, whereby a double block with a passage between the rollers and the ears a^4 for the rope or brail is formed, and said sections are kept at the proper distance from each other when riveted together by the axles of the rollers, substantially as described.

JOHN W. SHARRETT.

Witnesses:
JOHN W. SHARRETT, Jr.,
WILLIAM W. ROLLINS.