(No Model.)

T. R. FERRALL.

HOISTING BLOCK.

No. 492,550. Patented Feb. 28, 1893.

Fig. 1.

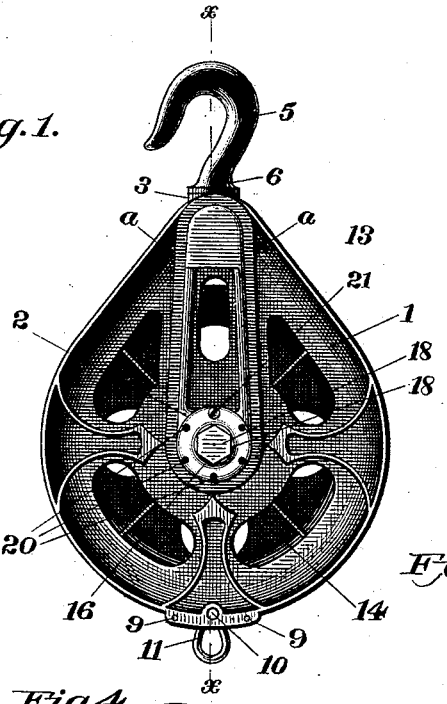


Fig. 2.

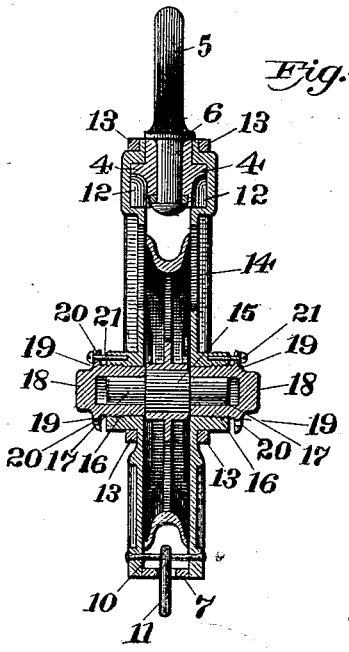


Fig. 4.

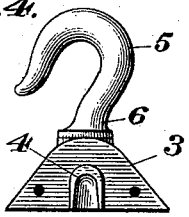


Fig. 3.

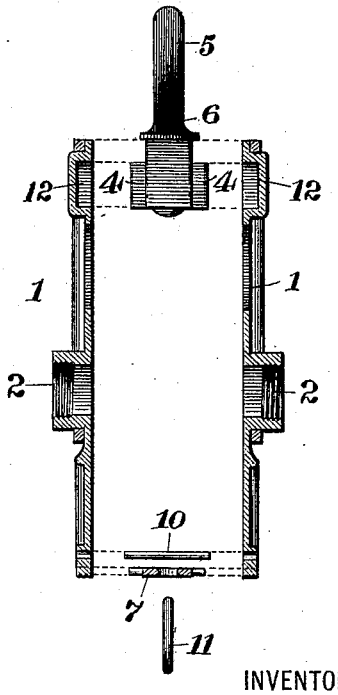
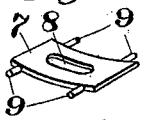


Fig. 5.



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UNITED STATES PATENT OFFICE.

THOMAS R. FERRALL, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR OF TWO-THIRDS TO ANDREW KROUSE AND GEORGE KROUSE, OF SAME PLACE.

HOISTING-BLOCK.

SPECIFICATION forming part of Letters Patent No. 492,550, dated February 28, 1893.

Application filed September 7, 1892. Serial No. 445,285. (No model.)

To all whom it may concern:

Be it known that I, THOMAS R. FERRALL, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Hoisting-Blocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to hoisting blocks such as are used in the lifting or moving of merchandise, &c., and has for its object to insure great strength to the block, to render the parts all interchangeable, and to provide such a bearing for the shaft of the sheave as shall be readily adjusted to present new and true bearing surfaces whenever constant wear shall render this necessary.

In the accompanying drawings,—Figure 1 is a side elevation of my improved block. Fig. 2, a section at the line x, x, of Fig. 1, Fig. 3, a sectional view showing the cheek-plates, hook head, bottom tie, pintle and ring, all in detached condition, but relatively arranged with a view to ready assembling. Fig. 4, a detail of the hook-head, and Fig. 5, a detail perspective of the bottom tie.

Similar numbers and letters denote like parts in the several figures of the drawings.

1 are cheek-plates having cast therewith the hubs 2.

3 is the hook head having lateral tenons 4 cast therewith.

5 is the hook whose tang 6 is secured to the head 3 in any ordinary manner.

The hubs 2 are hollow and are threaded interiorly for the purpose presently explained.

7 is the bottom tie which consists of a plate having an elongated slot 8 in its center and rivet pins 9 extending from opposite sides which pins register with perforations (not shown) in the plates 1, whereby, when these plates are assembled together said tie will thereby be secured.

10 is the guy-ring bolt which extends through the plates 1, as shown at Fig. 2, and 11 the guy-ring around said bolt and projecting out through the slot 8. The plates 1 have mortises 12 cast therewith which conform to the tenons 4 in the completed block, whereby great strength is insured, which strength is considerably augmented by wrought iron bands 13 which are shrunk around the mortises 12 and hubs 2.

The cheek-plates, hook-head, bottom-tie and guy-ring, are all secured together by the bolts and rivets 9, 10 and a.

14 is the sheave rigid on the shaft 15.

16 are journal boxes exteriorly threaded to conform to the interiorly threaded hubs 2. The journals 17 of the shaft 15 extend within the boxes 16 and are supported thereby. These boxes have on their outer faces wrench holds 18 and flanges 19 which latter are perforated at intervals as seen at 20.

Constant use of hoisting blocks will wear away the journal-boxes to such an extent that the sheaves will drop and bite the rope, but at any time, in the use of my improvement, the boxes may be turned and secured in a new adjustment by means of the check screws 21 passed through one of the perforations 20 into the hubs 2. It will thus be seen that I not only provide a closed journal box, but that I am enabled to adjust the latter, to compensate for wear, without opening the box. The slot 8 is elongated to allow the play of the ring 10, when the usual guy-rope is secured to the latter.

I am aware that metal bands have been shrunk or otherwise bound around a sheave-block, but I know of no construction in which the hook-head is yoked with the journal-box hubs. This yoking of the hook-head and hubs not only prevents the latter from becoming strained but it reinforces the block at those points where the greatest strength is needed. Also the construction of the hook-head and cheek-plates with their respective tenons and mortises affords great advantages as to strength and ready assembling.

I claim—

1. In a hoisting-block, the combination of the cheek-plates having formed therewith the hollow interiorly threaded hub, the journal boxes formed and exteriorly threaded to fit within said hubs, the latter having wrench holds and perforated flanges as described, and

the sheave-shaft having journals which extend within said boxes, whereby the latter may be adjusted circumferentially to afford new bearing surfaces, substantially as shown and described.

2. The combination of the cheek-plates having the hubs and mortises integral therewith, the hook head having lateral tenons which conform to said mortises, and the metal strap around said mortises and hubs and constituting a strengthening yoke, substantially as set forth.

3. The combination of the bottom-tie having centrally disposed elongated slot and provided with rivets projecting therefrom, the guy-rivet pin, the guy-ring around said pin and extending outwardly through said slot, and the cheek-plates, substantially as set forth.

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