

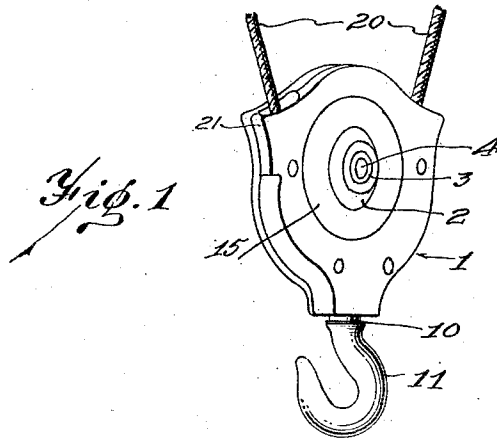
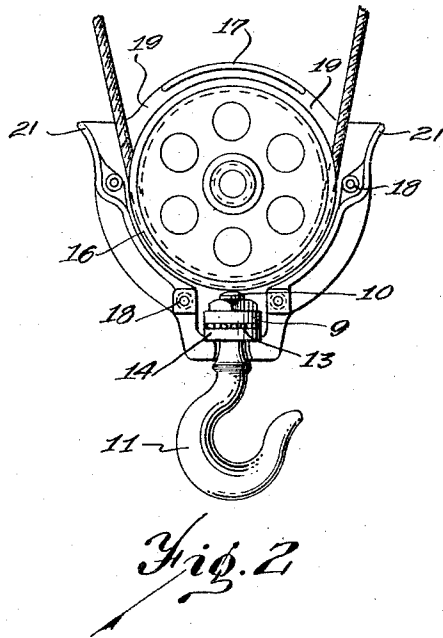
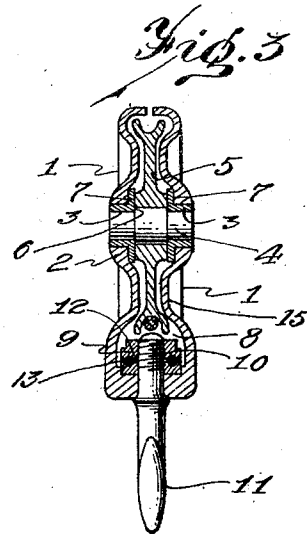
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W. E. SIMPSON

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HOIST BLOCK

Original Filed Aug. 13, 1920



Inventor

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UNITED STATES PATENT OFFICE.

WILLIAM E. SIMPSON, OF HIGHLAND PARK, MICHIGAN.

HOIST BLOCK.

Application filed August 13, 1920, Serial No. 403,180. Renewed January 26, 1925.

To all whom it may concern:

Be it known that I, WILLIAM E. SIMPSON, a subject of the King of Great Britain and Ireland, residing at Highland Park, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Hoist Blocks, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to hoists and refers particularly to hoist blocks. The invention has for its main object the provision of a hoist block which is simpler and can be manipulated with greater safety to the operator than is the case with hoist blocks as ordinarily constructed. Other objects reside in the novel features of construction and arrangements of parts as more fully hereinafter set forth.

In the drawings:

Figure 1 is a perspective view of a construction embodying my invention;

Figure 2 is a side elevation thereof with one of the cheeks or side plates removed;

Figure 3 is a vertical central section there-through.

The hoist block consists of a pair of cheeks or side plates 1 having bosses 2 adapted for engagement with bushings 3 which form bearings for the axle 4 of the grooved rope sheave 5. The central portion of the axle upon which the sheave 5 is mounted is of larger diameter than the end portions, thereby forming the shoulders 6 which engage the annular flanges 7 at the inner ends of the bushings 3.

Within the lower parts of the cheeks or side plates 1 are recesses 8 adapted to receive the nut 9 threadedly engaging the upper end of the shank 10 of the hoist hook 11. This nut has an annular groove 12 on its under side engageable by the series of balls 13, these balls also engaging a similar groove in the upper surface of the ring 14, surrounding the upper end of the shank 10 and located within the recesses 8. This arrange-

ment permits of the free rotation of the hook 11 relative to the cheeks or side plates 1.

The cheeks or side plates 1 have the annular inwardly depressed portions 15 surrounding the bosses 2 and fitting within the grooved rim portion of the sheave 5, whereby a convenient handhold is provided for the operator. These cheeks or side plates 1 have inwardly extending flanges 16 and 17 for enclosing the sheave 5 and are secured to each other by suitable securing means 18 such as screws. Slots 19 are provided between the flanges 16 and 17 to permit the passage of the hoist rope 20 which extends around the sheave 5. These slots are guarded by the flaring portions 21 of the flanges 16. The inwardly extending flanges 17, which are located above the sheave 5, serve to protect the sheave from injury and also to prevent it from being withdrawn from the hoist block in case of failure or accidental removal of the axle 4.

What I claim as my invention is:

The combination with a flexible hoisting element, of a hoist block comprising a pair of spaced complementary side plates having bosses, bushings engaging said bosses, an axle journaled in said bushings, a sheave mounted on said axle and suspended in a bight of said hoisting element, a hook connected to said plates, said plates having annular inwardly depressed portions surrounding said bosses forming a convenient handhold, flanges extending inwardly from said plates above said sheave for protecting the same and for preventing accidental removal thereof from between said plates, and flanges extending inwardly from said plates and cooperating with the flanges aforesaid to provide slots to permit of the passage of said hoisting element, the last-mentioned flanges having flaring portions guarding said slots.

In testimony whereof I affix my signature.

WILLIAM E. SIMPSON.