R. CLARKE.

SAFETY HOOK.

APPLICATION FILED MAY 13, 1915.

1,193,516. Patented Aug. 8, 1916.

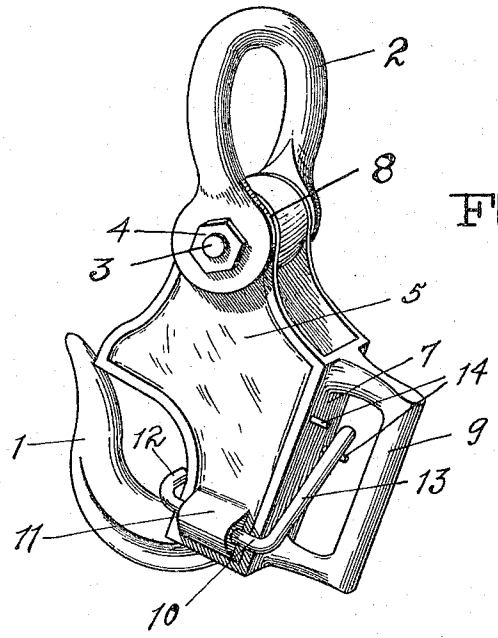


FIG. 1

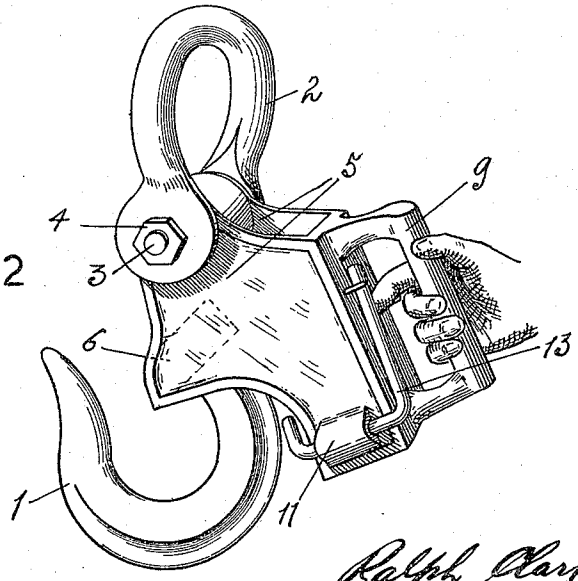


FIG. 2

Ralph Clarke

INVENTOR.

BY William P. Hammond

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RALPH CLARKE, OF RAMSEY, NEW JERSEY, ASSIGNOR TO CONTRACTORS TRADING COMPANY, INCORPORATED, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

SAFETY-HOOK.

1,193,516. Specification of Letters Patent. Patented Aug. 8, 1916.

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To all whom it may concern:

Be it known that I, RALPH CLARKE, a citizen of the United States, residing at Ramsey, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Safety-Hooks, of which the following, taken in connection with the accompanying sheet of drawings, is a full, clear, and concise description thereof.

My present invention relates particularly to certain improvements in safety appliances for hooks such as are commonly used in connection with hoisting apparatus, and the like.

The object of my present invention is to render such hooks more secure, thus reducing to a minimum the element of hazard in handling the same when engaged in the character of work in which they are used.

The safety appliance embodying my invention is preferably formed of a single casting, adapted to be applied to the conventional form of hook and operated by one hand of the user, to uncover the mouth of the hook and tilt the same to release the load successively in one operation. A retaining catch is provided which normally holds the appliance locked to the hook to prevent their independent movement and accidental release of the load.

In the accompanying drawing, I have shown by way of example one preferable embodiment of my invention in which—

Figure 1 illustrates in perspective a hook with which my safety appliance and retaining catch are coöperatively associated; and Fig. 2 is a similar view thereof showing the safety appliance and retaining catch in released position and the hook about to be tilted to release the load.

1 indicates a hook of the usual conventional type which is provided with the usual link 2 connected therewith by means of the threaded bolt 3 and nut 4.

The safety appliance consists of a cast metal rectangular yoke-like structure provided with parallel side walls 5, front wall 6 and rear wall 7. The side walls 5 are provided with extending bearing ears 8 which are perforated to accommodate the threaded bolt 3. The rear wall 7 has preferably cast integral therewith a handle or hand-grip 9 for the accommodation of the hand of the manipulator. The front wall 6 is formed integral with the side walls 5 and serves as a limiting stop for the rearward movement of the appliance. It will be understood that when the appliance is operated, it is tilted, the front wall 6 being brought into engagement with the hook 1, thus uncovering the jaw or mouth, and, upon further movement, the appliance tilts the hook so as to release the load.

In order to prevent the accidental manipulation of the appliance and an unintentional release of the load, I provide a conveniently-operated latch 10 for locking or retaining the appliance in its closed position, that is, when the hook is in normal load-supporting position. The latch member has an inwardly-turned end 12, which, when in locking position, extends beyond the side wall 5, across and in front of the hook 1 normally in position to abut when either is being moved relatively to the other. The member 10 is provided with a right-angular extension 13, which serves as a convenient means for manipulating it by the hand of the operator. Limiting stop pins 14 are employed for limiting the movement of the catch and to present the same in the most convenient position for manipulation.

The safety appliance is shown in locked position in Fig. 1. In order to release the load from the hook the operator tilts the catch 10 in the manner shown in Fig. 2, rotating the end 12 outwardly and out of the path of the hook thus freeing the same therefrom, and permitting the appliance to be independently moved until the front wall 6 engages the hook, whereupon further movement will tilt the hook and release the load. After the load has been released the catch 10 is maintained in its inoperative, or unlocking, position until the appliance has returned to its normal locking position, when the operator releases it, which, by reason of its angular position and weight, will descend by gravity until it engages the lowermost abutment 14 and during this movement the free locking end 12 is thrown to locking position.

While I have illustrated, by way of example, one preferable embodiment of my invention, I do not wish to be limited in matters of structural details as the same may be changed and altered without departing from the spirit and scope of my invention as defined by the appended claims.

Having thus described my invention, what I claim as new herein and desire to secure by Letters Patent, is:—

1. In a locking device for safety hoisting hooks, the combination with a hook and its pivotally mounted guard shell, of a transverse shaft journaled upon one side of the shell, a latch arm projecting laterally from one end of the transverse shaft and adapted to be swung into engagement with the body of the hook to lock the shell in operative position, and a finger lever projecting laterally from the opposite end of the transverse shaft.

2. In a locking device for safety hoisting hooks, the combination with a hook and its pivotally mounted guard shell which has a looped handle at the back thereof, a transverse shaft journaled upon one side of the shell, a latch arm projecting laterally from one end of the transverse shaft, and a finger lever projecting from the opposite end of the transverse shaft and extending within the looped handle of the shell so as to be manipulated by the fingers of the hand grasping the handle, the latch arm being adapted to be swung into engagement with the body of the hook to lock the shell in operative position.

In witness whereof I have hereunto set my hand.

RALPH CLARKE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."