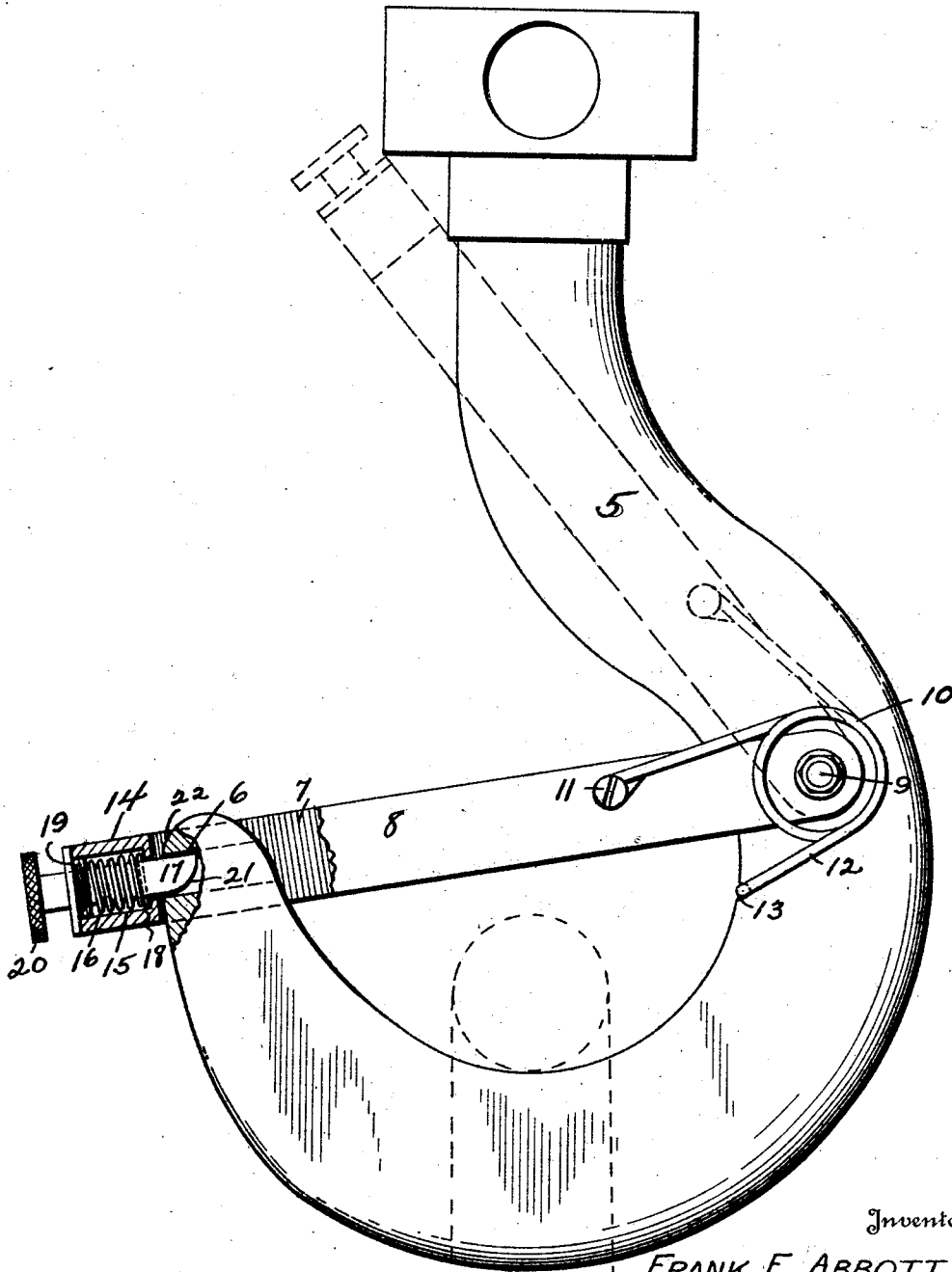


F. E. ABBOTT.
GUARD FOR HOOKS.
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1,411,549.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK E. ABBOTT, a citizen of the United States, residing at Coalinga, in the county of Fresno and State

of California, have invented certain new and useful Improvements in Guards for Hooks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to guards for hooks of the type frequently employed on cranes, derricks and the like for lifting heavy objects. The object of the invention is to provide a guard which will prevent the accidental disengagement from the hook, of the object engaged therewith, such, for example, as the link of a chain, a loop in a rope or any other element which supports the object to be lifted.

Further objects and advantages of the invention will be set forth in the detailed description which follows.

The figure shown in the accompanying drawing is a side elevation of a hook having the invention applied thereto with certain of the parts in section.

Referring to the drawing 5 designates a hook which is of a usual and known formation except that it has a transverse opening 6 formed therethrough adjacent the point thereof.

The guard comprises a yoke consisting of the side bars 7 and 8 pivotally connected to the body of the hook 5 by a bolt 9. A coil spring 10 is connected with the yoke as at 11 and has a bight portion 12 engaged in a slot 13 formed in the body of the hook and this spring tends to throw the guard to the dotted line position illustrated in the drawing. The side bars 7 and 8 are united by a block 14 at their outer ends and this block is recessed at 15 for the reception of a spring 16 which surrounds latch 17. This spring bears between a pin 18 carried by the latch and a plug 19 which is threaded into the outer end of the recess 15 and through which the latch 17 slides. The latch 17 is provided with a finger grasp or head 20 upon its outer end by which it may be drawn outwardly against the tension of the spring 16 to release the latch from the opening 6. The lower face of the latch is rounded at 21 to adapt it to coact with the rounded end 22 of the hook to force the latch 17 outwardly,

when the yoke is swung downwardly. When this downward movement has continued far enough, the latch will snap into the opening 6.

Among the advantages present in this structure over any other device of this nature with which I am familiar are these:

First: The parts are so related that when the guard is swung to the dotted line position shown in the drawing, the mouth or throat of the hook is entirely unobstructed and the chain link or other element to be engaged with the hook may be freely entered into the opening of the hook without contact with or interference by the guard;

Second: All of the latch mechanism is carried by the guard, none of it is carried by the nose of the hook. The hook is of the usual formation except for the presence of the opening 6; consequently there is no possibility that any of the latch mechanism will be battered out of shape by accidental engagement with heavy chain links or the like. The inclination of the point of the hook is such that the entrance to the opening 6 is protected and thus the part of the opening with which the latch 17 engages is maintained in good condition.

It is to be understood that the invention is not limited to the precise construction set forth but that it includes within its purview whatever changes fairly come within either the terms or the spirit of the appended claims.

Having described my invention, what I claim is:

1. A lifting hook having an opening therein adjacent its point and extending from the outer face of said point inwardly, a guard pivoted for swinging movement to the body of the hook substantially opposite said point and comprising a yoke adapted to embrace the point of the hook, a spring actuated latch operable longitudinally of the yoke and adapted to snap into the opening of the hook and means tending to throw said yoke upwardly, said yoke straddling the body of the hook and lying entirely outside of the throat thereof when in its upper position.

2. In combination with a lifting hook having an opening formed therein adjacent its point and extending from its outer face inwardly, of a guard comprising a yoke con-

sisting of a pair of side bars and a transverse element, said yoke straddling said hook and being pivoted thereto at the rear side of the hook and at a point substantially opposite the point of the hook, a coiled spring engaging said yoke and the body of the hook and tending to throw said guard to an ele-

vated position and a spring actuated latch movable longitudinally in the transverse member and adapted to snap into the opening of the hook. 10

In testimony whereof I hereunto affix my signature.

FRANK E. ABBOTT.