

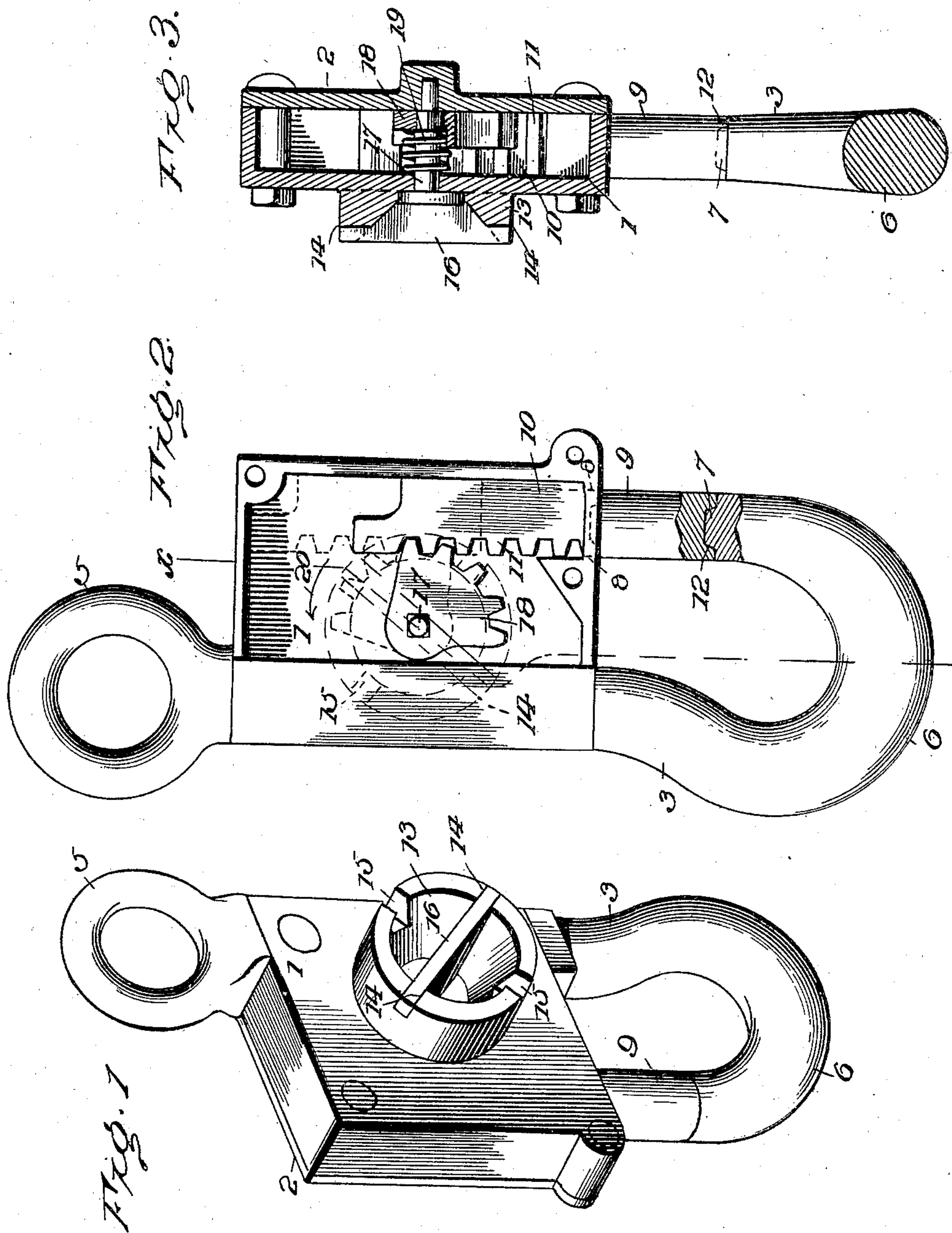
No. 709,572.

Patented Sept. 23, 1902.

S. COWAN.  
HOISTING HOOK.

(Application filed Mar. 27, 1902.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

SAMUEL COWAN, OF JARDINE, MONTANA.

## HOISTING-HOOK.

SPECIFICATION forming part of Letters Patent No. 709,572, dated September 23, 1902.

Application filed March 27, 1902. Serial No. 100,269. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL COWAN, a citizen of the United States, residing at Jardine, in the county of Park and State of Montana, have invented certain new and useful Improvements in Hoisting-Hooks; 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.

This invention relates to improvements in hoisting-hooks.

The object of the invention is to provide in a hoisting-hook means for opening the hook whereby a rope, link, or the like may be suspended thereby and at the same time protect the means from the elements.

A further object of the invention is to provide means for opening the hook proper in combination with a locking device to prevent accidental displacement of the opening of the hook or the closing of the same when it is properly positioned.

In hooks of this type it not infrequently happens that the elements rust the parts, and they become clogged, the result being that at the critical time the parts fail to work. However, I overcome these objectionable features by providing the operating mechanism with a housing.

Many other objects and advantages will be hereinafter referred to, and particularly pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a perspective view of my improved hook. Fig. 2 is a face view looking from the opposite side, the near-by plate of the housing being removed and the movable jaw of the hook being shown open by dotted lines. Fig. 3 is a vertical section on the line X X of Fig. 2.

The numeral 1 indicates a housing having a removable cover 2 bolted or otherwise secured thereto, and the numeral 3 indicates the hook proper, which is also bolted to the housing and forms a part thereof. Formed on the upper end of the housing is an eye 5, and at the lower end is a hook 6, having formed on its upper end a reduced nose 7. Through an opening 8 in the housing plays the rounded end 9 of the movable hook-section 10. On the face of the section are gear-

teeth 11, and at the lower end of the rounded portion 9 is a recess 12, adapted to receive the nose 7 of the hook 6.

A hollow boss 13 is formed on the stationary side of the housing and is provided with two sets of notches 14 and 15, which are engaged by a flange or finger-piece 16, formed on the end of a shaft 17, which is mounted in the housing 1. Mounted on the shaft in such manner that it will turn therewith is the segment 18, adapted to engage the teeth 11 of the hook-section 10. It will be observed, however, that the width of the segment 18 is considerably less than the width of the teeth 11 and that interposed between the segment and the wall of the casing 1 is a coiled spring 19, which normally forces the shaft inwardly and causes the flange 16 to engage either of the sets of notches, as will be hereinafter described.

The parts thus assembled, the operation is as follows: Assuming the parts to be in the position shown in full lines in Fig. 2, the flange 16 is in engagement with the notches 14. Hence the shaft 17 cannot revolve and is thus held locked in position under the influence of the spring 19; but should it be desired to gain access to the hook 6 the operator will pull the flange 16 out of the notch 14 and give said flange a turn in direction of the arrow 20 until the notches 15 are reached, whereupon the flange is forced down in said notches under the influence of the spring 19, also locking the parts in the selected position. By turning the flange 16 the teeth are made to engage the teeth of the section 10, hence raising or lowering the same, according to the desire of the operator.

The nose 7 and recess 12 are fitted to a nicety, so that when the parts are closed an unbroken loop is presented, which will avoid any wear or tear of the ring or rope engaging the same. It will therefore be seen that the construction herein described has many decided advantages over the present state of the art, and it is thought the construction and operation will be fully comprehended by those skilled in the art to which it appertains.

Having thus described the invention, what is claimed as new is—

1. In a hoisting-hook, the combination with a housing, of a hook proper, a slidable sec-

tion forming a continuation of the hook proper, teeth on said section, a shaft, teeth on the shaft, a locking-flange cooperating with said shaft, and a spring adapted to hold the  
5 aforesaid flange in engagement with notches upon a boss located on the housing, substantially as set forth.

2. In a hoisting-hook, the combination with a housing, of a slidable hook-section having  
10 teeth, a segment engaging said teeth, the width of said segmental teeth being less than that of the teeth of the hook-section, a flange by which the segment may be turned, means for locking said flange, and a spring to hold  
15 the flange in a locked position, substantially as described.

3. In a hoisting-hook, the combination with a housing, of a slidable hook-section having teeth, a shaft, a segment on the shaft engag-

ing said teeth, a flange on the shaft, notches  
20 being formed with which the flange engages, and a spring to normally hold the flange in contact with the notches, substantially as set forth.

4. In a hoisting-hook, the combination with  
25 a housing, of a movable hook-section having teeth, a shaft, a segment on said shaft, a flange on said shaft, a hollow boss projecting from the housing having two sets of notches, and a spring for forcing the flange on the  
30 shaft into either designated set of notches, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL COWAN. [L. S.]

Witnesses:

JAS. MYSONG,  
W. S. COWAN.