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Patented Oct. 2, 1900.

J. PIERCY.
HOISTING GRIP

(Application filed May 15, 1900.)

(No Model.)

2 Sheets—Sheet 1.

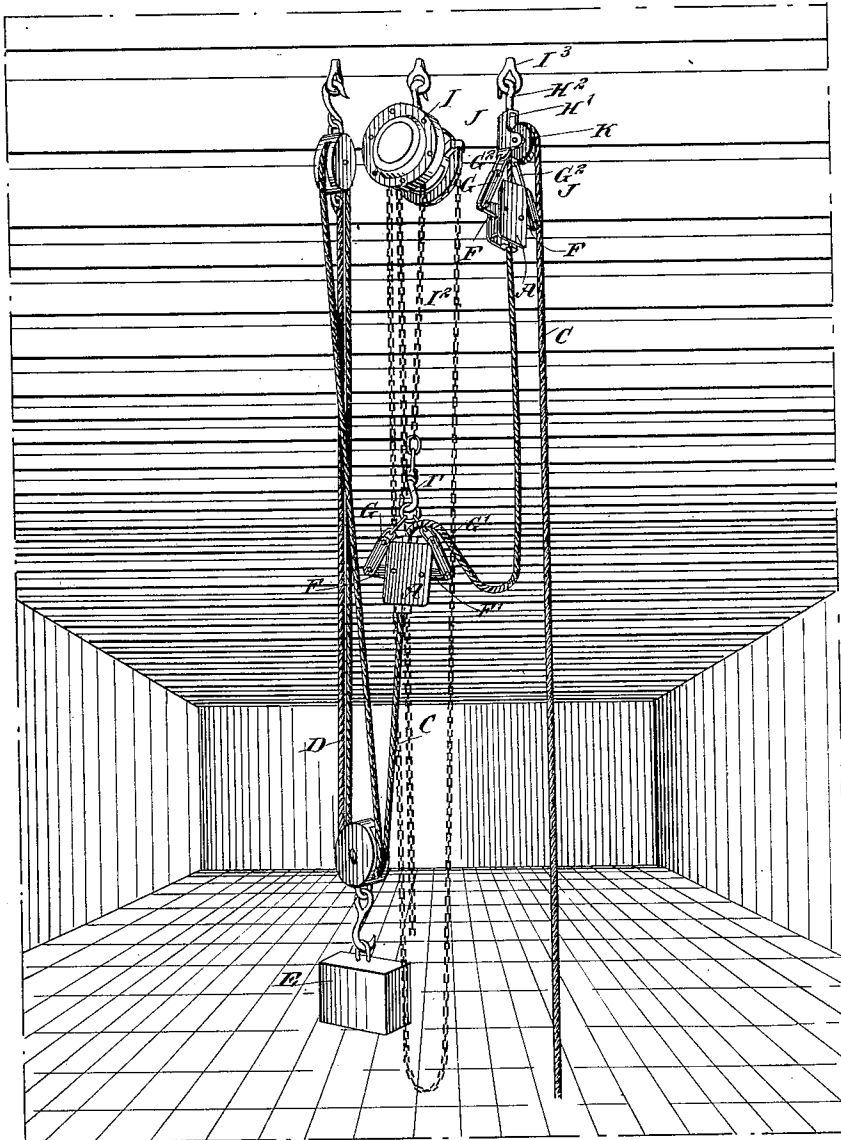


Fig. 1

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2 Sheets—Sheet 2.

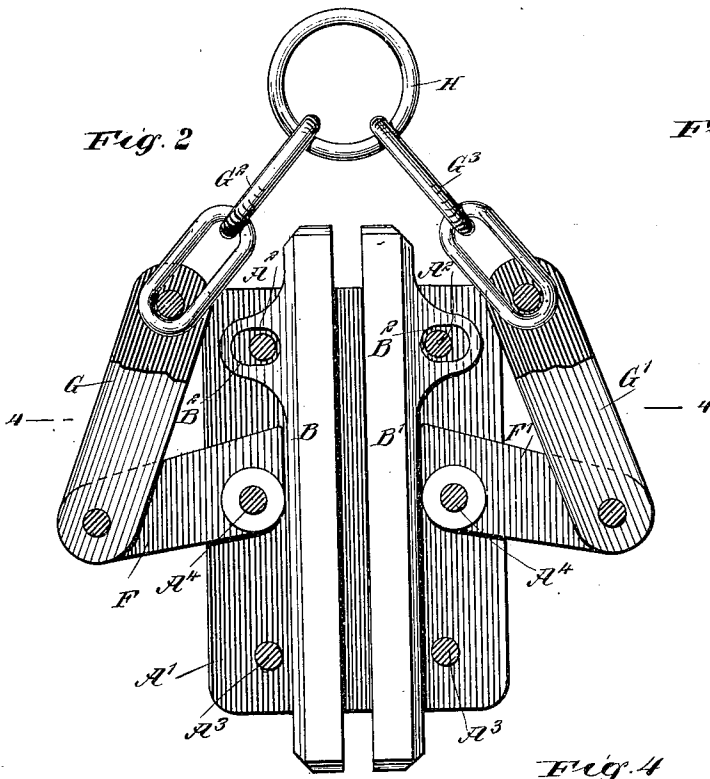


Fig. 3

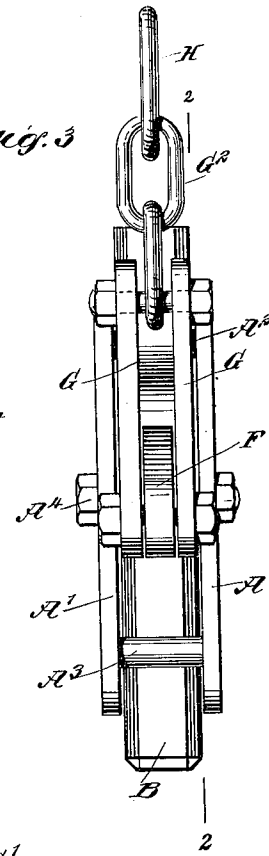


Fig. 4

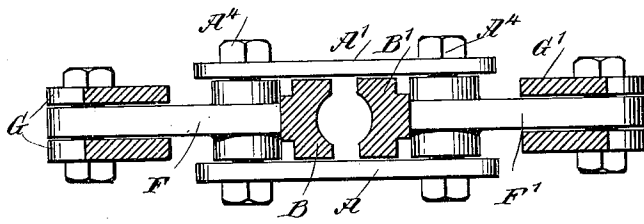


Fig. 5

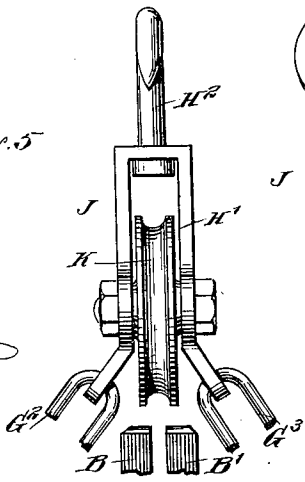
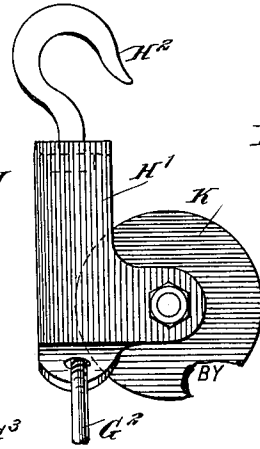


Fig. 6



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UNITED STATES PATENT OFFICE.

JOHN PIERCY, OF NEW YORK, N. Y.

HOISTING-GRIP.

SPECIFICATION forming part of Letters Patent No. 659,100, dated October 2, 1900.

Application filed May 15, 1900. Serial No. 16,767. (No model.)

To all whom it may concern:

Be it known that I, JOHN PIERCY, a subject of the Queen of Great Britain, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Hoisting-Grip, of which the following is a full, clear, and exact description.

The invention relates to hoisting devices; and its object is to provide a new and improved hoisting-grip which is simple and durable in construction and especially designed for use on a hoisting rope or cable to securely grip the same at any desired point and to allow of shifting the grip on the rope or cable to take a fresh hold thereon whenever desired.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improvement as applied. Fig. 2 is an enlarged sectional front view of the improvement on the line 2 2 in Fig. 3. Fig. 3 is an edge view of the same. Fig. 4 is a sectional plan view of the same on the line 4 4 in Fig. 2. Fig. 5 is a front elevation of the upper part of the auxiliary grip, and Fig. 6 is a side view of the same.

The improved hoisting-grip is provided with a casing consisting, essentially, of front and back plates A A', connected with each other by pins or set-bolts A² A³, located near the upper and lower portions of the plates, bolts A⁴ connecting the plates with each other at or near the middle thereof. Between the plates A A' are arranged jaws B B', adapted to engage opposite sides of a hoisting rope or cable C, forming part of a block and tackle D, supporting the load E; but it is evident that the said hoisting-rope C may form part of a hoisting device of different construction.

The jaws B B' are provided near their upper ends with outwardly-extending ears or lugs B², formed with elongated slots, through which extend the upper pins A², as is plainly illustrated in Fig. 2, to allow the said jaws

B B' to move toward or from each other and at the same time support the jaws between the plates A A'. The lower pins A³ form guides for the lower portions of the jaws B B', and said jaws are engaged at or near their middle by the inner ends of cam-levers F F', respectively, mounted to turn on the bolts A⁴, previously described.

The outer ends of the cam-levers F F' are pivotally connected with links G G', respectively connected by short chains G² G³ with a ring H, adapted to engage a hook I' on the chain I² of a hoisting device I of any approved construction. It is evident that when the ring H is disconnected from the hook I' then the weight of the links G G' causes the levers F F' to swing the cam ends of the levers out of engagement with the jaws B B', so that the latter do not grip the rope or cable C, and consequently the hoisting-grip can be readily moved along the said rope or cable C to the point desired to be gripped. When this has been done, the ring H is engaged with the hook I', and then the hoisting device I is set in motion to draw the hook I' upward, so that the latter pulls on the ring H and the links G G' to impart a swinging motion to the levers F F', so that the inner ends press the jaws B B' firmly in gripping contact with the cable or rope C. As the cable is now firmly gripped, it is evident that upon a further upward movement of the hook I' the rope or cable is pulled in a like direction to raise the load E.

When the hoisting-grip reaches the hoisting device I and the load E is not yet raised to the desired height, then the end of the cable or rope C above the hoisting-grip is fastened to a suitable overhead support to support the load, and then the hoisting device I is reversed to allow the hook I' to move downward, so as to release the links G G', the levers F F', and jaws B B' and permit the hoisting-grip to slide by its own weight down on the cable or rope C. When the hoisting-grip has been lowered the desired distance, then the hoisting device I is again reversed to move the hook I' upward and to again cause a closing of the jaws B B' on the cable or rope and a further raising of the load E in the manner above described.

Instead of fastening the end of the cable

or rope C to an overhead support, as previously mentioned, I prefer to employ an auxiliary holding-grip J, similar in construction to the hoisting-grip, the only difference being
 5 that the chain connections G² G³ instead of engaging a ring H are attached to a casing H', having a hook H², engaging an eye I², fastened to an overhead support, as illustrated
 10 in Fig. 1. In the casing H' is journaled a pulley K, over which passes the loose end of the rope or cable C, the downwardly-hanging end of the rope or cable being within reach of the operator.

Now when the first or primary hoisting-grip
 15 has been lifted, as previously described, by the action of the hoisting device I then the operator pulls on the loose end of the rope or cable C and draws the same between the two grips, and when this has been done the hoisting device I is reversed and the hook I', with
 20 the main hoisting-grip, lowered to transfer the pull on that part of the cable or rope C extending between the two grips. As soon as this takes place the jaws B B' in the auxiliary grip J close, so as to suspend the load, while the main hoisting-grip can be further
 25 lowered on the cable or rope C to a desired point, after which the hoisting device I is reversed to cause the jaws B B' of the main hoisting-grip to again grip the cable or rope,
 30 as above explained.

From the foregoing it is evident that the two grips are held in conjunction with each other to accomplish the desired result without a troublesome fastening of the loose end
 35 of the rope in case a second gripping of the cable or rope is desired by the main hoisting-grip.

The device is very simple and durable in
 40 construction, is composed of but few parts, and hence is not liable to easily get out of order.

As the levers F F' are not directly or positively connected with the jaws, it is evident
 45 that the jaws open and close upon swinging the levers in the corresponding direction, as above explained.

Having thus fully described my invention, I claim as new and desire to secure by Letters
 50 Patent—

1. A hoisting-grip, comprising a casing, gripping-jaws arranged in said casing and mounted to move toward or from each other and grip or release a cable or rope, the said
 55 jaws being provided near their upper ends with outwardly-extending ears or lugs formed with elongated slots, pins or bolts extending through said slots, cam-levers pivoted in the casing, the cam ends of said levers being
 60 adapted to move into or out of engagement with the jaws, and arranged to press the said jaws to grip the cable or rope, and links pivotally connected with the outer ends of said levers and connected with a hoisting device,
 65 the links, upon an upward pull, causing the

levers to swing to move the jaws into gripping contact with the hoisting rope or cable, substantially as shown and described.

2. A hoisting-grip, comprising a casing consisting of front and back plates, pins or bolts connecting the plates with each other
 70 the pins or bolts being located near the upper and lower portions of the plates and at or near the middle thereof, gripping-jaws adapted to grip or release a cable or rope and arranged between the plates, the said jaws being provided near their upper ends with elongated slots through which extend the upper pins or bolts connecting the plates of
 75 the casing, the lower pins connecting the casing extending at the outer sides of the jaws at the lower portion thereof, and forming guides for the same, cam-levers mounted to turn on the intermediate bolts and adapted to engage with their cam ends the outer sides
 80 of said jaws and press the latter in gripping contact with the cable or rope, links pivotally connected with said levers, a ring adapted to be engaged by a hoisting device, and chain connections between the links and
 85 the ring, the links upon an upward pull, causing the levers to swing and move the jaws into gripping contact with the hoisting rope or cable, substantially as shown and described.
 90
 95

3. The combination with a main hoisting-grip having movable jaws controlled by the hoisting device, of an auxiliary grip having gripping-jaws, a casing, means connected with the casing for operating said gripping-jaws, means for suspending said casing from
 100 a fixed support, a pulley journaled in said casing and a hoisting cable or rope which passes between both sets of gripping-jaws and over the said pulley, substantially as
 105 shown and described.

4. A hoisting-grip, comprising a support, gripping-jaws, loosely mounted near one end on said support, whereby the jaws may move toward or from each other and grip or release
 110 a cable or rope, levers pivoted near their inner ends on said support, and having cams at said ends adapted to move into or out of engagement with the outer sides of said jaws, and arranged to press the said jaws to grip the
 115 cable or rope, and links pivotally connected with the outer ends of said levers and connected with a hoisting device, the links upon an upward pull causing the levers to swing to move the jaws into gripping contact with
 120 the hoisting rope or cable, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN PIERCY.

Witnesses:

THEO. G. HOSTER,
 EVERARD BOLTON MARSHALL.