(No Model.)

J. SAMUELSON.

ROPE GRIP AND TAKE-UP.

No. 589,224. Patented Aug. 31, 1897.

Fig. 1.

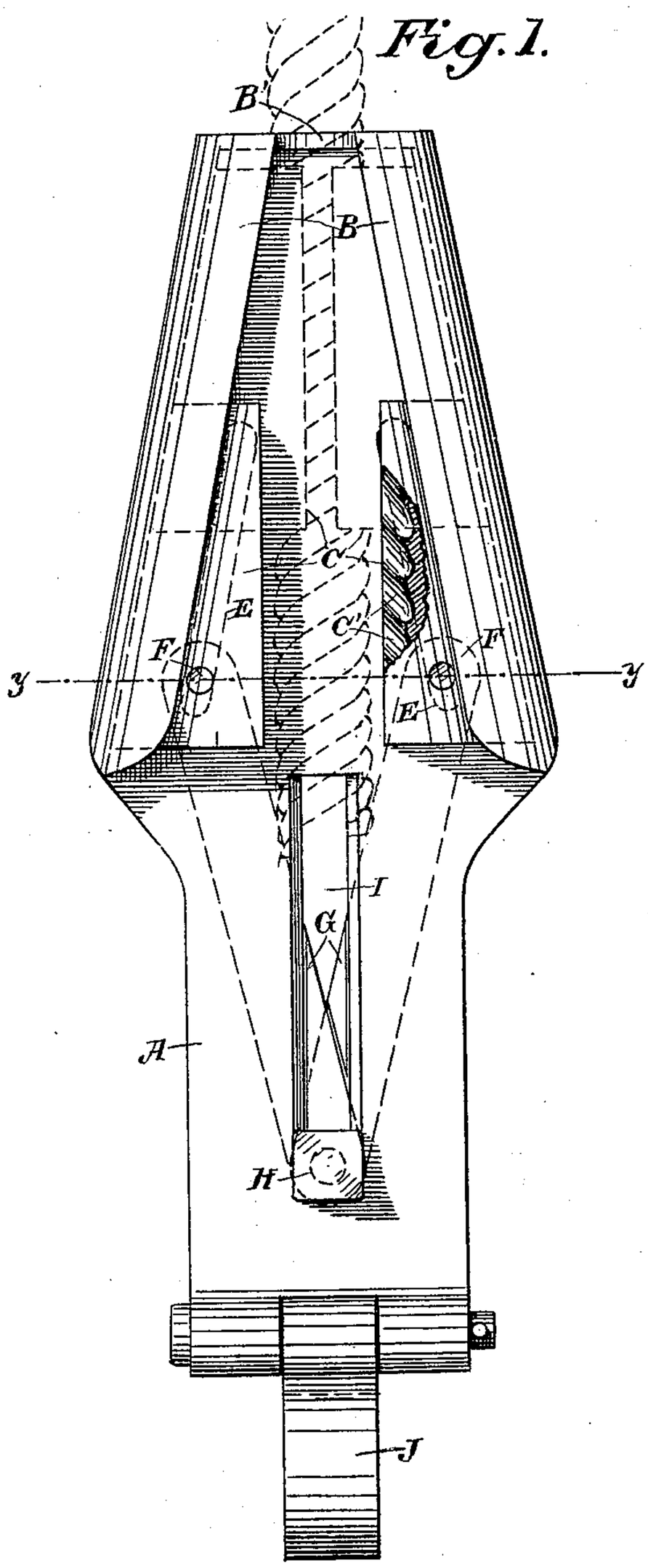


Fig. 2.

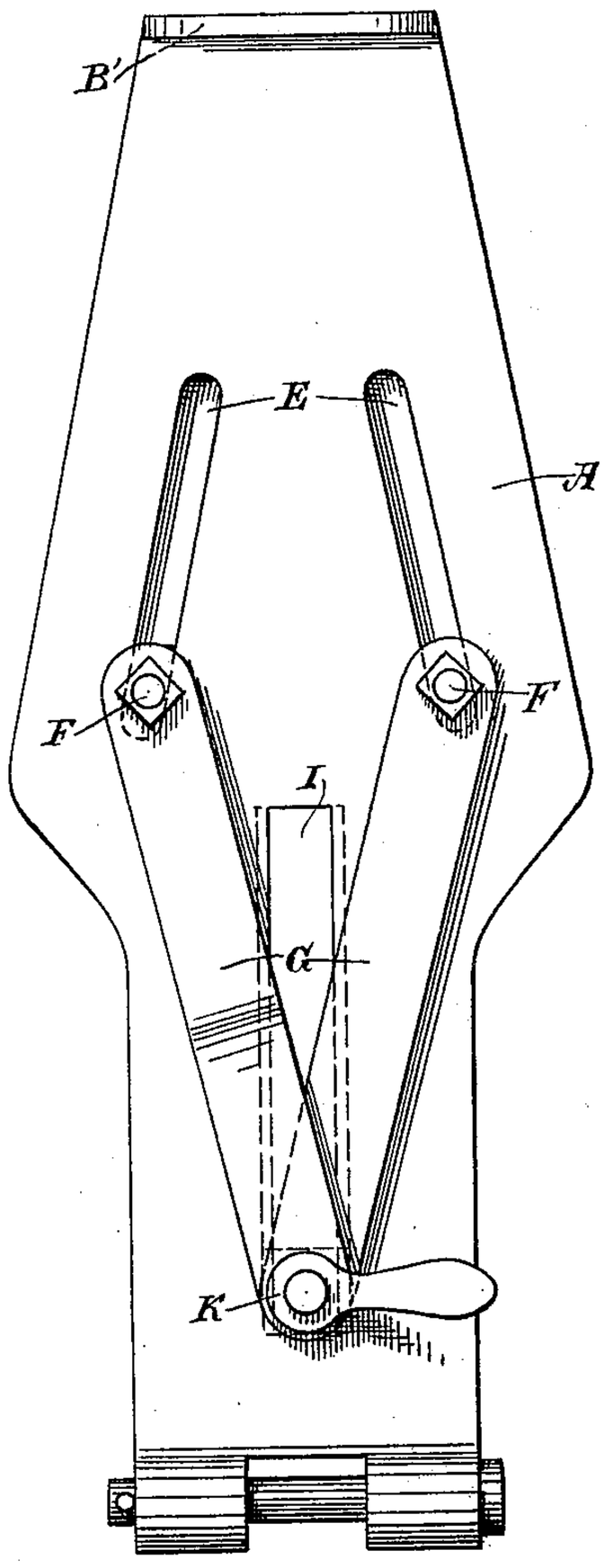
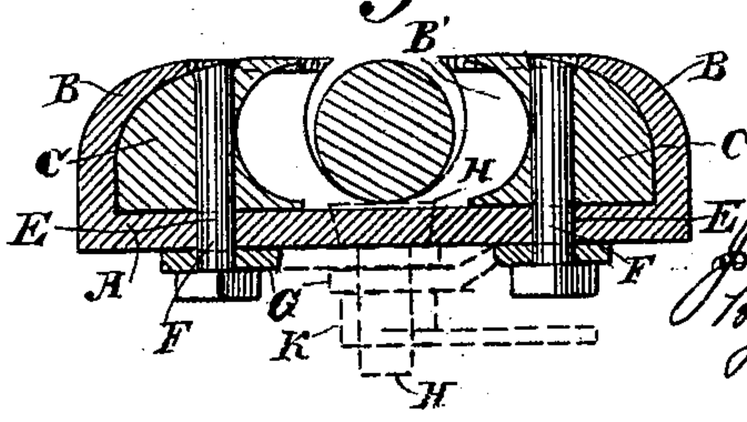


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN SAMUELSON, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO CORNELIUS KRAMER, OF SAME PLACE.

ROPE GRIP AND TAKE-UP.

SPECIFICATION forming part of Letters Patent No. 589,224, dated August 31, 1897.

Application filed November 27, 1896. Serial No. 613,497. (No model.)

To all whom it may concern:

Be it known that I, JOHN SAMUELSON, a citizen of Sweden, residing in the city and county of San Francisco, State of California, have invented an Improvement in Rope Grips and Take-Ups; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device which I call a "rope grip and take-up."

The object of my invention is to provide a device which is readily attached to a rope, whereby any slack of the rope may be instantly taken up and the rope firmly gripped in the device for the purpose of setting up rigging on ships or for the handling of running rigging and ropes where they are to be drawn in or shortened and for otherwise instantaneously operating to grip and haul a rope in any desired direction.

It consists of certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a front elevation of my improved rope grip and take-up. Fig. 2 is a rear view showing the links and guides which connect with the movable gripping-jaws. Fig. 3 is a section on line *y y* of Fig. 1.

In carrying out my invention I employ a base-plate A, having converging guides B formed or fixed upon it, and jaws C, adapted to slide in the converging guides, so as to be opened or closed by a longitudinal movement therein. These jaws are made of considerable length, the proportion depending upon the size of the rope and the strain which is to be put upon them.

The guides B may be more or less divergent, so that the jaws will be opened and closed by a shorter or longer movement within the guides. At the narrowest end the guides are preferably connected by a brace-plate B′, which prevents their being separated or broken by any great strain which may be brought upon them when the gripping-jaws are forcibly driven into the narrower portion between the guides.

The jaws C have segmental grooves formed in their meeting faces, and these grooves are spirally corrugated, as shown at C′, so as to form grips corresponding approximately to the spiral strands of the rope, which will lie within these grooves when the jaws are brought together upon the rope, and it will be thus held firmly. Through the base-plate A are made slots E, parallel with and having the same direction as the guides B.

Pins or bolts F pass through the jaws C and through the slots E, connecting at the opposite side of the plate A with the ends of the links G through which the bolts pass, as shown. The opposite ends of these links are connected with a bolt or pin H, and this passes through a central slot I, made through the base-plate, as shown. This slot serves as a guide for the pin H, and the slots E serve as guides for the pins F, so that when the jaws are moved in one direction the pins F, moving in the diverging slots E, will separate the jaws from each other, keeping them in contact with the guides B, within which they move, and when moved in the other direction they will close together with the jaws.

The ends of the links G which are connected with the bolts F are also separated by drawing backward, while the opposite ends, connected with the bolt H, move in line with the central slot I, and the jaws may thus be drawn back in the diverging guides until they are opened to their fullest extent. The rope being inserted into the jaws, they are then moved in the opposite direction, the parts reversing the movement just previously described, until the jaws have closed upon the rope so as to grip it firmly, and any pull upon the rope after that will draw the jaws still farther into the converging guides, thus making a hold upon the rope as strong as may be desired.

The invention is especially adapted for setting up standing rigging where it has become slack or for taking hold of running rigging to which it is desired to apply a powerful pull, and generally for moving ropes in any direction. By reversing it it may be set to pull upwardly as well as downwardly.

Upon the end of the plate A, opposite to the guides and jaws, is a swivel link, hook, or other connecting device J, to which power may be applied to pull upon the device and its connected rope.

It will be seen that in order to pull upon or take up any rope it is only necessary to loosen the jaws by drawing them into the wider portion of the guides, when the rope may be slipped through the jaws as far as possible. Then the jaws are moved into the narrower portion of the guides until they grip the rope firmly at this point. Power may then be applied to the link J and the whole device and the rope pulled along as far as desired. Then if more rope is to be taken in the rope may be temporarily belayed or attached at some point behind the device, and by moving the grip forward the jaws will be loosened and it can be slid along the rope to a point where a new hold can be taken, and thus the rope may be drawn in by a succession of movements to any desired extent.

The bolt H is shown having a nut K fitting upon its screw-threaded end behind the plate A, and this nut may be turned so as to grip the link G firmly to the plate, the head of the bolt H being beveled where it passes through the correspondingly-beveled slot I.

The nut K has a suitable extension or handle by which it can be turned, and this serves to easily move it when it is desired to slide the jaws backward or forward.

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

1. A rope gripping and take-up device consisting of jaws having channels longitudinally between them adapted to receive and grip a rope, converging guides between which the jaws are slidable, slots made in the guide-plate parallel with the converging guides and an intermediate longitudinal slot beyond the ends of the diverging slots, pins passing through the gripping-jaws and through the diverging slots, links connected with said pins at one end having the other end connected with a pin or bolt passing through the central slot.

2. A rope grip and take-up device, consisting of a base-plate having converging guides, with slots converging coincidently with the guides, gripping-jaws slidable between the guides having channels made in their meeting faces, with corrugations adapted to grip and hold a rope, pins passing through the jaws and through the angular slots, links connecting with said pins at one end and with another pin at the opposite end movable in a central longitudinal slot, and a locking-nut by which the parts are secured at any desired point.

3. A rope grip and take-up device consisting of a base having converging guides formed upon it and angular slots made through the base parallel with the guides, gripping-jaws having their adjacent faces channeled and corrugated to grip and hold the rope, said jaws being movable in the converging guides to open or close, pins passing through the jaws and through the angular channels in the base-plate, a longitudinal beveled channel having its line of direction between the angular channels, a pin having a head to fit the beveled slot through which it extends, links connecting said pin with the pins which pass through the angular slots whereby the jaws and links move in unison, a locking-nut turnable upon the threaded end of the pin which passes through the beveled slot, and an attachment at the end of the base-plate for the application of power.

In witness whereof I have hereunto set my hand.

JOHN SAMUELSON.

Witnesses:
GEO. H. STRONG,
S. H. NOURSE.