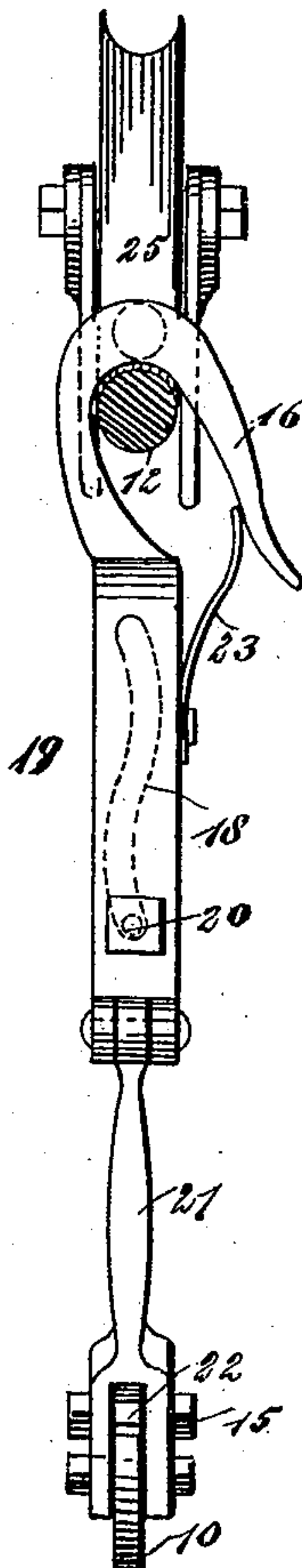
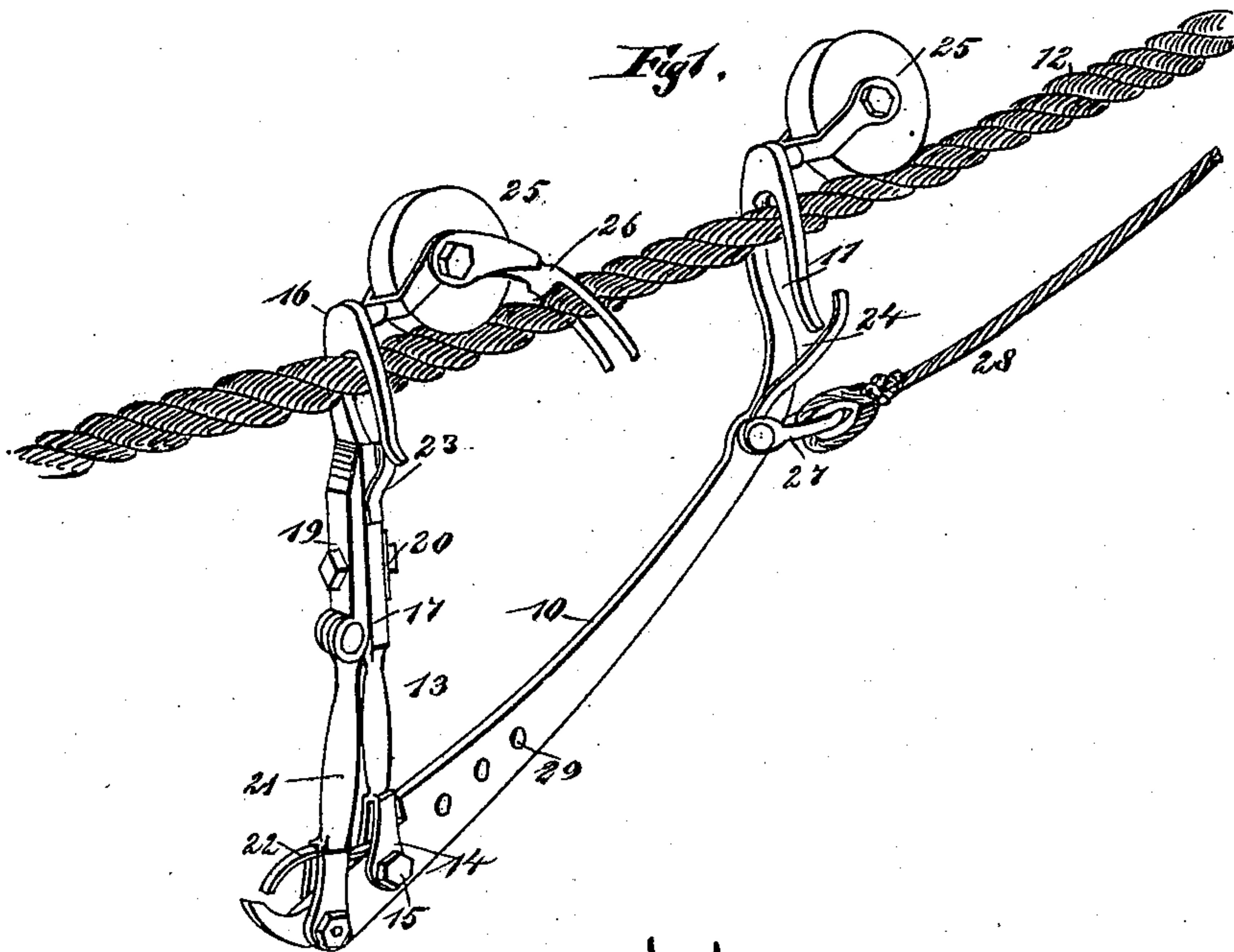


(No Model.)

J. SQUIRES & C. PETRIE.
DEVICE FOR CUTTING SHIPS' CABLES.

No. 488,847.

Patented Dec. 27, 1892.



WITNESSES:

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JOHN SQUIRES AND CHARLES PETRIE, OF ST. JOHN'S, NEWFOUNDLAND.

DEVICE FOR CUTTING SHIPS' CABLES.

SPECIFICATION forming part of Letters Patent No. 488,847, dated December 27, 1892.

Application filed May 6, 1892. Serial No. 432,097. (No model.)

To all whom it may concern:

Be it known that we, JOHN SQUIRES and CHARLES PETRIE, of St. John's, Newfoundland, have invented a new and Improved Device for Cutting Ships' Cables, of which the following is a full, clear, and exact description.

Our invention relates to a device especially adapted for use in cutting ships' cables, and has for its object to provide a machine simple, durable and economic in character and which may be conveniently and expeditiously sent down a cable to a point at or near where the cable connects with the anchor, and whereby the machine may be operated from the deck in a manner to conveniently and expeditiously sever the cable; thus in the event of the anchor fouling, or in the event of a sudden storm wherein there is not time to heave up the anchor, the cable may be cut close to the latter and the cable be thereby saved, the only loss suffered being that of the anchor.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in both the views.

Figure 1 is a perspective view of the machine, illustrating it in position upon a cable; and Fig. 2 is a front elevation of the machine.

It is frequently desirable and imperative that a vessel should be quickly released from its anchor, and when this necessity occurs it has heretofore been the practice to cut the cable at the bow of the vessel. When this means is employed for releasing the vessel from its anchor, not only is the anchor lost, but what is still more valuable, the cable also, and it is the prime object of this invention to provide a machine wherewith under all circumstances when a cable is to be cut, the machine may be made to travel down the cable to a point at or near the anchor and sever the cable at that point.

The machine consists of a body bar 10, which at its upper end is provided with a hook 11, adapted to surround the cable 12, to be cut. The hook stands at somewhat of an angle,

nearly at a right angle, to the body of the bar 10, and at or near the opposite end of the bar 10 the lower end of a standard 13, is pivoted, the said standard being preferably provided at that end with a fork 14, through which the bar passes, and the pivotal connection is effected by passing a bolt 15, through the forked end of the standard and through the bar. The upper end of the standard is provided with a hook 16, corresponding to the hook 11 of the body bar 10; and the hook of the standard, which is nearly in alignment with the body portion, is adapted also to pass around the cable to be operated upon. When the standard and the body bar are connected with the cable by the latter passing through their hooks, the standard will be at the lower end of the machine, and will stand practically straight, while the body bar 10, will have a downward inclination, as shown in Fig. 1. It will be observed that the standard 13, serves as a fulcrum for the bar 10. Thus the bar 10, is practically a lever, and will be hereinafter termed such.

Between the hook 16 of the standard and its lower end the standard is provided with a flattened surface 17; and in this surface a longitudinally disposed serpentine slot 18, is produced, as shown in dotted lines, Fig. 2. A knife 19, is held to slide upon the outer face of the flat section 17 of the standard, the upper edge of the knife being the cutting edge; and the knife is guided in its movement by passing a bolt 20 through the knife and through the serpentine slot 18 of the standard. The knife is actuated by the upward movement of the lever 10 through the medium of a pitman 21, pivotally connected with the lower end of the lever, and likewise connected with the lower end of the knife. The knife is held in a lower position, that is, in a position below the cable when the machine is placed upon the latter, by means of a spring 22, the spring acting to carry the pitman downward and likewise the end of the lever after the cutting of the cable has been accomplished.

The mouth of the lower hook 16, is normally closed by a spring 23, and the hook 11 is closed by a spring 24, as shown in Fig. 1. Both of these springs may be manipulated to

admit of the hooks being passed over the cable. Each hook has also a guide roller 25, connected therewith, the peripheries of which rollers are grooved in order that they may travel along the cable and prevent the hooks from coming in frictional engagement with the cable. The bearings of the lowermost guide or friction roller 25, are provided with a guard fork 26, which extends rearwardly or upwardly beyond the friction roller, and down one side at each side of the cable.

Near the upper end of the lever 10 a clevis 27, is secured, and this clevis has attached to it one end of a rope 28, the other end of the rope being held upon the vessel.

In operation, after the machine is placed upon the cable, it is permitted to run down the latter until a point at or near the anchor is reached, and at that time, by drawing upon the rope 28, the upper end of the lever 10, will be drawn downward and its lower end carried upward, which will cause the knife, through the medium of the pitman connection 21, to travel up also; and as the movement of the knife is governed by the shape of the slot 18 and the slot is serpentine in character, the knife will approach and pass through the cable with a vibrating movement, thus providing for a rapid cut, as the cutting action of the knife will not only be vertical but will be more or less horizontal also.

It will be readily observed that this device is capable of being expeditiously and conveniently manipulated from the deck of a vessel, that it may be readily sent down a cable, and further that by its use a cable may be expeditiously and conveniently cut at almost any point desired. If it is necessary that the machine should travel extraordinarily fast down the cable, or if the machine is liable to meet with resistance in descending the cable, weights may be attached to the lower end of the lever, as apertures 29, are made in the lever for that purpose.

Having thus described our invention, we claim as new and desire to secure by Letters Patent,—

1. A machine for cutting ships' cables, consisting of a hanger provided with a passage at its upper end to receive a rope, a lever fulcrumed in the lower end of the hanger near one extremity, the other end of the lever being provided with a passage for a cable, a knife held to slide upon the hanger, and a link connection between the lever and the knife, substantially as shown and described.

2. A device for cutting ships' cables, consisting of a hanger adapted to travel upon a cable, a lever fulcrumed upon the hanger, a knife carried by the hanger and capable of a sliding movement thereon, and a driving connection between the knife and the lever, as and for the purpose specified.

3. A machine for cutting ships' cables, consisting of a hanger, a lever carried by the hanger, a knife having movement upon the hanger, a connection between the lever and the knife, and means, substantially as shown and described, for operating the lever to impart a desired motion to the knife, as and for the purpose specified.

4. A machine for cutting ships' cables, consisting of a hanger, a lever fulcrumed in the hanger, a knife having sliding movement, a link connection between the knife and the lever, guide rollers connected with the hanger and the lever and adapted to travel upon the cable, and means, substantially as shown and described, for elevating one end of the lever, as and for the purpose set forth.

JOHN SQUIRES.

CHARLES PETRIE.

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