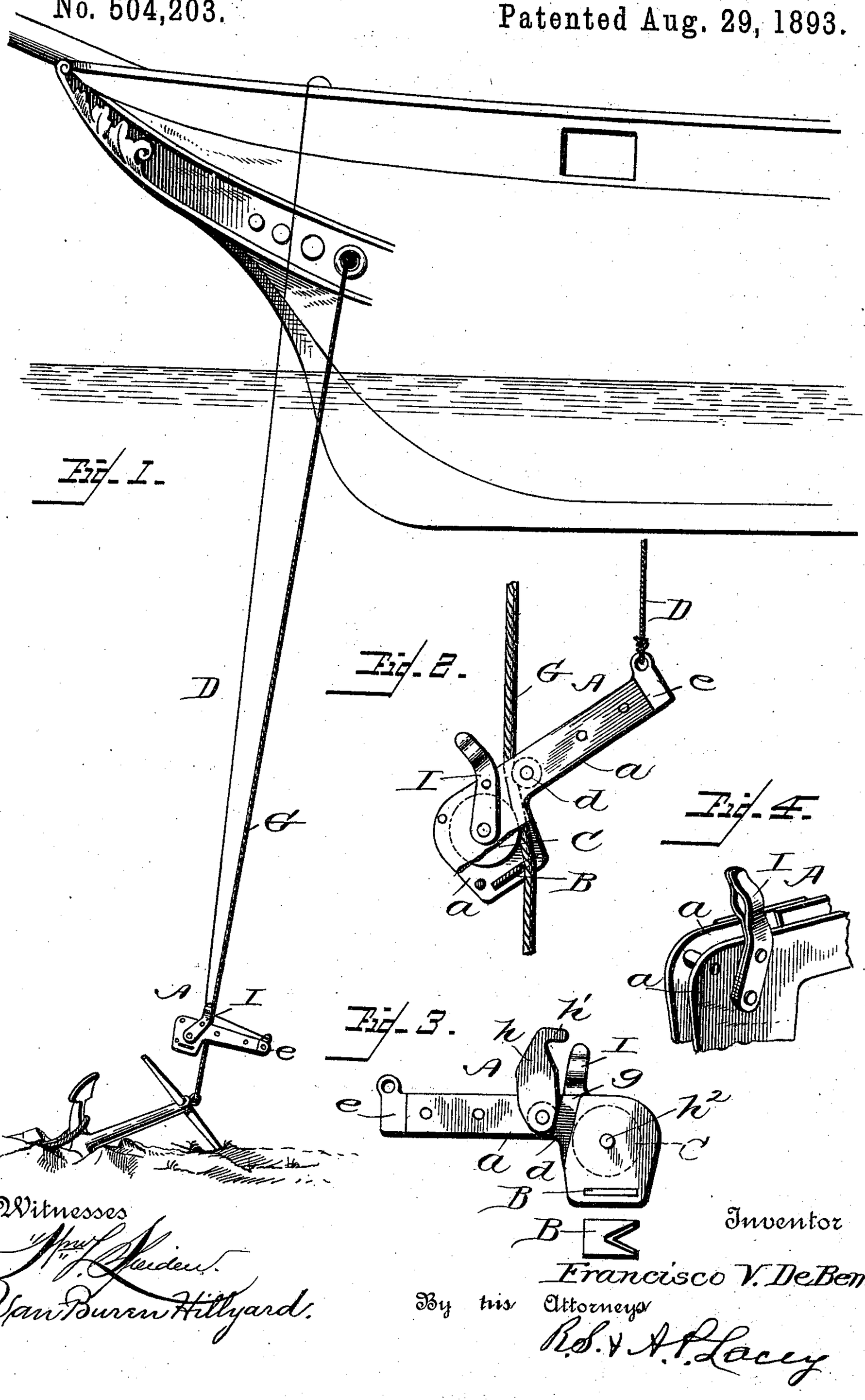
(No Model.)

F. V. DE BEM.

DEVICE FOR CUTTING SHIPS' CABLES.

No. 504,203. Patented Aug. 29, 1893.



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UNITED STATES PATENT OFFICE.

FRANCISCO VIEIRA DE BEM, OF GLOUCESTER, MASSACHUSETTS.

DEVICE FOR CUTTING SHIPS' CABLES.

SPECIFICATION forming part of Letters Patent No. 504,203, dated August 29, 1893.

Application filed October 13, 1892. Serial No. 448,785. (No model.)

To all whom it may concern:

Be it known that I, FRANCISCO VIEIRA DE BEM, a subject of the King of Portugal, residing at Gloucester, in the county of Essex, State of Massachusetts, have invented certain new and useful Improvements in Devices for Cutting Cables for Boats; 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.

My invention relates to a device for cutting a cable or rope beneath the water close to the anchor or at any required point, or for cutting cables and lines generally where the same cannot be conveniently reached. It is especially designed for use on ship board to cut the cable or anchor line in the case of an emergency so that said cable or line may be quickly drawn aboard the ship and thus saved.

The improvement consists essentially of a cutting device which can be readily and quickly applied to the cable or anchor line, and which is adapted to travel upon the same freely in either direction, being controlled in its movements by an operating line.

The improvement further consists in combining with such cutting device a temporary holder for retaining the operating line in such relative positions that said cutting device may be moved on the cable or anchor line to the required position, and which will release said operating cord when the latter is jerked or pulled suddenly to bring the cutting appliance into proper position to sever the cable or anchor line upon a strong and steady pull being applied to the operating line.

The improvement also consists in combining with the cutting device pulleys to facilitate the travel of the same upon the cable or anchor line.

The improvement also further consists in having the frame of the cutting device slotted to admit of the same being readily applied to the cable or anchor line, and in providing a locking device to extend across the said slot and prevent said cable or anchor line from slipping therethrough.

A still further improvement consists in having the cutting apparatus weighted so that under normal condition the cutting appliance will be held out of contact or engagement with the cable or anchor line, and which when the operating line is pulled upon will cause the cutting device to assume a position to bring the cutting appliance into efficient service to sever the cable or anchor line.

The improvement also consists in the peculiar construction and combination of the parts which will be hereinafter more fully described and claimed and which are shown in the annexed drawings in which—

Figure 1 is a detail view showing the application of the invention, the operating line being engaged by the temporary holder to admit of the cutting device being moved to the required point on the cable or anchor line. Fig. 2 is a detail view showing the relative position of the cutting device when the operating line is released from the temporary holder and drawn upon to sever the cable or anchor line. Fig. 3 is a side view of the cutting device on a larger scale, showing the lock for closing the slot in the side of the frame thrown open so as to disclose said slot. Fig. 4 is a detail view showing the temporary holder.

The cutting device consists of a frame A comprising two side pieces *a* of similar construction placed in parallel position and suitably connected together by cross pieces. One end of the frame is comparatively wide and receives the cutting appliance B and a guide pulley C. The remaining portion of the frame is narrow, forming an arm which is weighted at its outer end, as shown at *e*, and which weighted end has the operating line D attached thereto. A small guide pulley *d* is located at the inner end of the arm or narrow portion of the frame between which and the pulley C the cable or anchor line G is received. One of the side pieces of the frame is provided with a transverse slot *g* opposite the space between the pulleys C and *d* to admit of the cutting device being applied to the cable or anchor line to be severed. This slot is adapted to be closed by a locking device *h* which is pivoted at one end to said frame on one side of the slot and which is provided at its opposite end with a hook *h'* to engage with

a pin or stop h^2 by means of which said locking device is held in place after being extended across said slot *g*.

The cutting appliance B may be of any suitable construction devised for the required purpose to suit the nature of the cable or anchor line to be severed. In its simplest form of construction the cutting appliances, as shown, consists of a blade having a V knife formed in the cutting edge thereof. This form of blade is especially designed for severing cables which are formed from manila, hemp and similar substance, but for wire ropes and chains a cutting appliance will be provided to effect the desired result. The term cutting appliance embodies within its scope any suitable cutter to sever the cable or anchor line whether the same be composed of manila or similar substance, or wire, or links.

The temporary holder I is designed simply to engage with the operating line D and hold the same in such relation to the cutting device that the latter may be moved to the required position on the cable or anchor line to be cut and which will release said line on the latter being suddenly pulled, thereby permitting the cutting device to change its relative position so as to bring the cutting appliance in proper position to sever the cable or anchor line on said operating line receiving a strong and steady pull. As shown, the holder consists of two spring jaws which are free at one end to receive the operating line and which are fastened at their opposite ends to the frame of the cutting device.

In the drawings the cable or anchor line to be severed is represented by G. This line may be a hawser or guy line.

To apply the cutting device to the line G the slot *g* in the side of the frame thereof is disclosed to receive said line. After the cutting device is in position on the line G the operating line D is engaged with the temporary holder I, as shown in Fig. 1. Obviously, by a proper manipulation of these operating lines the cutting device may be moved on the line G to the required position and on giving said line D a smart pull it will become detached from the temporary holder and the cutting device will assume the position shown in Fig. 2 which will bring the cutting appliance in position against the line G to sever the same on a strong and steady pull being applied to the operating line D. After the line G has been cut the cutting device and the line D may be drawn in and thus saved.

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

1. A cutting device for severing a cable or anchor line, consisting of a frame provided with a cutting appliance and weighted to normally hold the cutting appliance out of engagement with the said cable or anchor line, and an operating line to control the movements of the device and bring into efficient service the cutting appliance, substantially as described.

2. A cutting device for severing a cable or anchor line, consisting of a frame provided with a cutting appliance and weighted to normally hold the cutting appliance out of an operative position, a line for controlling the movements of the device, and a holder to retain the line in such relative position as to overcome the weighted end of the said frame under ordinary conditions, but which will release the said line when the latter is suddenly pulled upon, substantially as described for the purpose specified.

3. A cable cutting device, comprising a frame having a cutting appliance, and having a slot in one side to receive the cable, and a locking device to close the said slot and retain the cable in place in the said frame, substantially as set forth.

4. A cable cutting device consisting of, a frame having a slot in one side to receive the cable and provided with a cutting appliance and weighted to hold the cutting appliance out of operative position, a locking device to close the slot in the frame, guide pulleys on each side of the said slot, a temporary holder, and an operating line to control the movements of the device and held by the said temporary holder to overcome the weighted end of the frame under normal conditions, substantially as specified, and adapted to bring the cutting appliance into active position when suddenly pulled upon to sever the cable, substantially in the manner herein set forth.

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

FRANCISCO VIEIRA DE BEM.

Witnesses:

FRANK F. MARTIN,

BEV. FRANCISCO S. DE BEM.