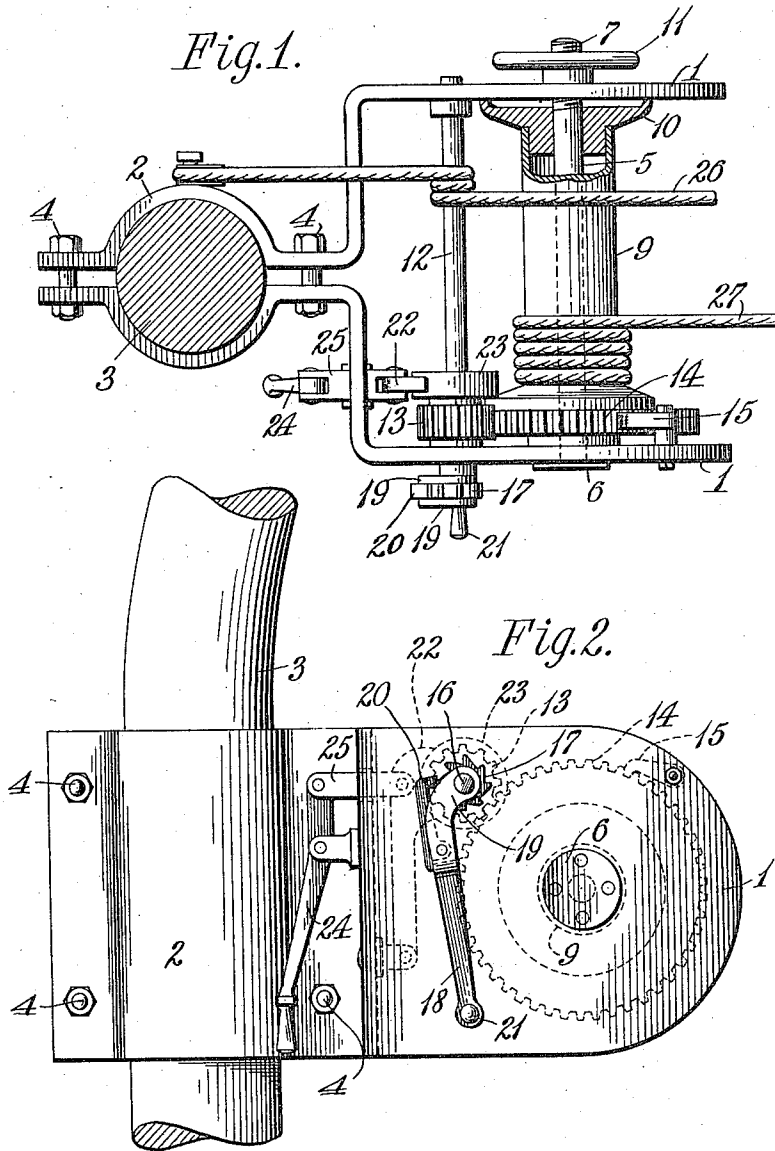


D. JACQUES.
WINCH.
APPLICATION FILED AUG. 10, 1912.

1,059,998.

Patented Apr. 29, 1913.



Witnesses
Chas. W. Stauffer
Anna M. Dorr.

By

Inventor
Damase Jacques,
Damase Jacques
Attorney

UNITED STATES PATENT OFFICE.

DAMASE JACQUES, OF DETROIT, MICHIGAN.

WINCH.

1,059,998.

Specification of Letters Patent.

Patented Apr. 29, 1913.

Application filed August 10, 1912. Serial No. 714,344.

To all whom it may concern:

Be it known that I, DAMASE JACQUES, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Winches, of which the following is a specification, reference being had therein to the accompanying drawings.

In lowering boats away it is desirable that the tackle on the davit be under the control of one person who can graduate the descent of the boat to meet the requirements of the situation. It is also desirable in hoisting boats on shipboard that one person be able to handle one of the davit tackles and be able to control the boat and load with ease.

This invention relates to a davit winch whereby one person can handle one end of a boat for lowering away or bringing on board, the device being arranged to insure safety as well as ease of control.

The invention consists in the matters hereinafter set forth and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a plan view of a davit winch mounted on a davit which is shown in section, that forms an embodiment of the invention; and Fig. 2 is a view in side elevation with a davit partially broken away, showing the winch at rest.

As herein indicated a pair of oppositely disposed frame plates 1 have their inner end portions interturned and brought into parallel spaced relation with portions 2 thereof adapted to embrace the stock of a davit 3 or other support. Bolts 4 or other suitable means clamp the frame plates in position. A spindle 5 is non-rotatably secured as by a properly formed head 6 in one of the plates and has a screw threaded portion 7 that extends through an opening in the other frame plate. A drum 9 is rotatably mounted on the spindle with a dished or flanged end plate 10 adjacent the screwthreaded portion 7 of the spindle to bear outwardly against the plate 1 especially if the latter be forced inwardly as by a hand wheel or controlling brake wheel 11 on the screwthreaded portion of the spindle. A countershaft 12 is journaled in the plates in parallel relation to the drum 9 with which it is geared by means of a pinion 13 and gear 14 secured to the end of the drum remote from the flanged head 10. Or other suitable means may be used for positively driv-

ing the drum from the shaft. A pawl 15 suitably mounted on one of the plates 1 may be thrown into engagement with the gear 14 to prevent the drum from running back under load. The outer end portion 16 of the shaft 12 is provided with ratchet teeth or a ratchet wheel indicated at 17. A ratchet lever 18 is rotatably mounted on the shaft 12 with ears 19 embracing the ratchet wheel. The lever 18 is off-set near its upper end so that a ratchet plate or dog 20 that is pivoted between the ears 19 hangs clear of the ratchet wheel 17 when the lever 18 is in normal position as indicated in Fig. 2. When the lever 18 is rotated, a handle 21 being provided for this purpose, the dog 20 interlocks with the wheel 17 and turns the shaft. An emergency brake shoe 22 is pivotally mounted on the inner face of one of the plates with its free end riding on a brake drum 23 of the shaft 12. An emergency brake lever 24 that is fulcrumed on the outside of one of the plates 1 is coupled by a link 25 to the free end of the brake shoe whereby the latter may be forced into frictional engagement with the drum 23. If it is desired to control the winch from a boat that is being lowered, a rope 26 or the like attached to one of the end plates is given a turn or two around the shaft 12 with its free end passed to the boat so that the occupant thereof may effectually brake the shaft 12.

In operation, when the winch is secured as shown to a davit and the davit is outboard, and the brake free, a person can by oscillation of the ratchet lever raise a boat even under heavy load without difficulty, it being understood that the latter is hooked on to a tackle whose rope 27 is passed around the drum 9. The pawl 15 of course locks the drum against backward movement during this operation. In lowering the boat, as the ratchet lever hangs free, and the safety pawl is released, one person by manipulation of the hand brake wheel can readily lower away at any desired speed. If desired the emergency brake may be applied or as above stated the occupant of the boat can control the davit by the rope that passes around the jack shaft.

When the davit is turned inboard the winch swings clear of surrounding objects and extends inwardly toward the boat. When the davit is turned outwardly the winch handle is convenient for operation

by a person braced against the davit. While the winch may be secured to the floor or deck it is preferably mounted as shown herein in order to swing with the davit and be in the most convenient position for operation.

Obviously, changes in the details of construction may be made without departing from the spirit of my invention and I do not care to limit myself to any particular form or arrangement of parts.

What I claim is:—

1. The combination with a support, of a winch detachably mounted thereon consisting of a pair of oppositely disposed side plates whose inner end portions embrace the support, a spindle non-rotatably secured across the outer end portions of the plates, a drum rotatable on the spindle between the plates, a brake wheel in screwthreaded engagement with the outer portion of the spindle for forcing the frame plate against the end face of the drum, a shaft rotatably mounted on the plates in parallel relation to the spindle, means operatively connecting the shaft and drum, oscillatory means for manually turning the shaft, and an emergency brake for the shaft.

2. The combination with a support, of a winch consisting of a pair of oppositely disposed side plates whose inner end portions embrace the support, means securing said end portions together around the support, a spindle non-rotatably secured across the outer end portions of the plates and provided with a screwthreaded end portion extending through one of the plates, a drum rotatable on the spindle between the plates, a flanged head on the drum adjacent the screwthreaded portion in sliding contact with the companion plate, a hand brake wheel in screwthreaded engagement with the outer portion of the spindle for forcing the plate against the flanged head, a gear

wheel on the drum, a shaft rotatably journaled in the plates in parallel relation to the spindle, a pinion secured on the shaft in mesh with the gear, a ratchet wheel on the shaft, a ratchet lever oscillatory on the shaft adjacent the ratchet wheel, and a ratchet pawl on the lever adapted to engage the ratchet wheel when the lever moves out of its lowest position.

3. The combination with a support, of a winch consisting of a pair of oppositely disposed side plates whose inner end portions embrace the support, means securing said end portions together around the support, a spindle non-rotatably secured across the outer end portions of the plates and provided with a screwthreaded end portion extending through one of the plates, a drum rotatable on the spindle between the plates, a flanged head on the drum adjacent the screwthreaded portion in sliding contact with the companion plate, a hand brake wheel in screwthreaded engagement with the outer portion of the spindle for forcing the plate against the flanged head, a gear wheel on the drum, a shaft rotatably journaled in the plates in parallel relation to the spindle, a pinion secured on the shaft in mesh with the gear, a ratchet wheel on the shaft, a ratchet lever oscillatory on the shaft adjacent the ratchet wheel, a ratchet pawl on the lever adapted to engage the ratchet wheel when the lever moves out of its lowest position, a brake drum on the shaft and an emergency brake for frictionally engaging the drum.

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

DAMASE JACQUES.

Witnesses:

ANNA M. DORR,
OTTO F. BARTHEL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."