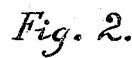


William Carr.
Windlass
No 2449. Patented Feb. 7/1842.

Patented Feb. 7, 1842.



UNITED STATES PATENT OFFICE.

WM. CARR, OF BATH, MAINE.

SHIP'S WINDLASS.

Specification of Letters Patent No. 2,449, dated February 7, 1842.

To all whom it may concern:

Be it known that I, WILLIAM CARR, of Bath, in the county of Lincoln and State of Maine, have invented a new and useful Improvement in the Mode of Moving the Windlasses of Ships; and I do hereby declare that the following is a full and exact description thereof.

The nature of my invention consists in the use of double knee levers attached to the brakes at one end, and operating by pawls attached to the other upon ratchets affixed to the windlass.

To enable others skilled in the art to make and use my invention, I proceed to describe its construction and operation.

The windlass, windlass bits and pawl bit, all marked A, in the accompanying drawings, are to be constructed and used as in other cases, with the usual pawl and pawl plates. To these my new machinery is to be applied as follows, viz—On each side of the usual pawls, and about eighteen inches distant therefrom, a ratchet wheel is to be placed and affixed around the windlass, about as large in circumference as the windlass itself, and about six inches in thickness, marked B. Directly forward of these, at each side of the pawl bit, marked A, C, which for the purpose should be about three and a half feet wide, one foot and a half thick, and five and a half feet high, an aperture is to be made sufficient to insert a two knee lever, as hereafter described, and have the same fastened by a pivot in the middle, on which it may play, which aperture or mortise is to be 8 or 10 inches above the top of the windlass. The two knee levers marked D to be thus inserted consists of a horizontal arm marked 2 in the middle part, about 24 or 26 inches long, eight or nine inches from the after end of which is the pivot, and about four inches square. On the end of this arm next to the windlass, is a firm, fixed knee, with the arm, marked 3, extending therefrom perpendicularly, downward, about seven inches by three and nine or ten inches long. To the lower end of this arm, by a

mortise and pin or pivot on which they may play, are to be attached, side by side, and fastened by the same pivot, three pawls, about two inches square, a little flattened at the end inserted into the lever, and of unequal lengths, with the other ends resting, at unequal distances, upon the ratchet, the lengths being 11—12 and 13 inches. At the other or forward end of the horizontal arm, is to be another knee, formed by the arm marked 1, which is to be about 2 inches square, and to be inserted by a joint, so as to admit of sufficient motion by one end to said horizontal arm, and by the upper end to one end of the crosshead of the usual double brake marked E, which is to play on a pivot in the middle, affixed to the pawl bit near the top. The downward motion of the brake, at each end, will thus by means of the two-knee lever and its pawls, force round the ratchet on that side, and consequently the windlass to which it should be firmly affixed, and by the continued motion on both sides, giving a rotary motion to the windlass.

The new materials may be of iron, and all cast, except the pins or pivots and pawls. The foregoing dimensions are calculated for a ship of about 500 tons. They may be increased or diminished for ships of greater or less burthen.

I am aware that ships' windlasses have been operated with a lever working upon a fulcrum, and having a pawl or hand on each side thereof so as to actuate the windlass by the up and down motion of one end of the lever, and therefore I do not claim this as my invention; nor do I claim the mere application of the brake to a ship's windlass.

What I do claim and desire to secure by Letters Patent, is—

The combination of the brake with the two-knee lever and pawls and ratchets for the purpose, and in the manner described.

WILLIAM CARR.

Witnesses:

B. RANDALL,
S. A. RANDALL.