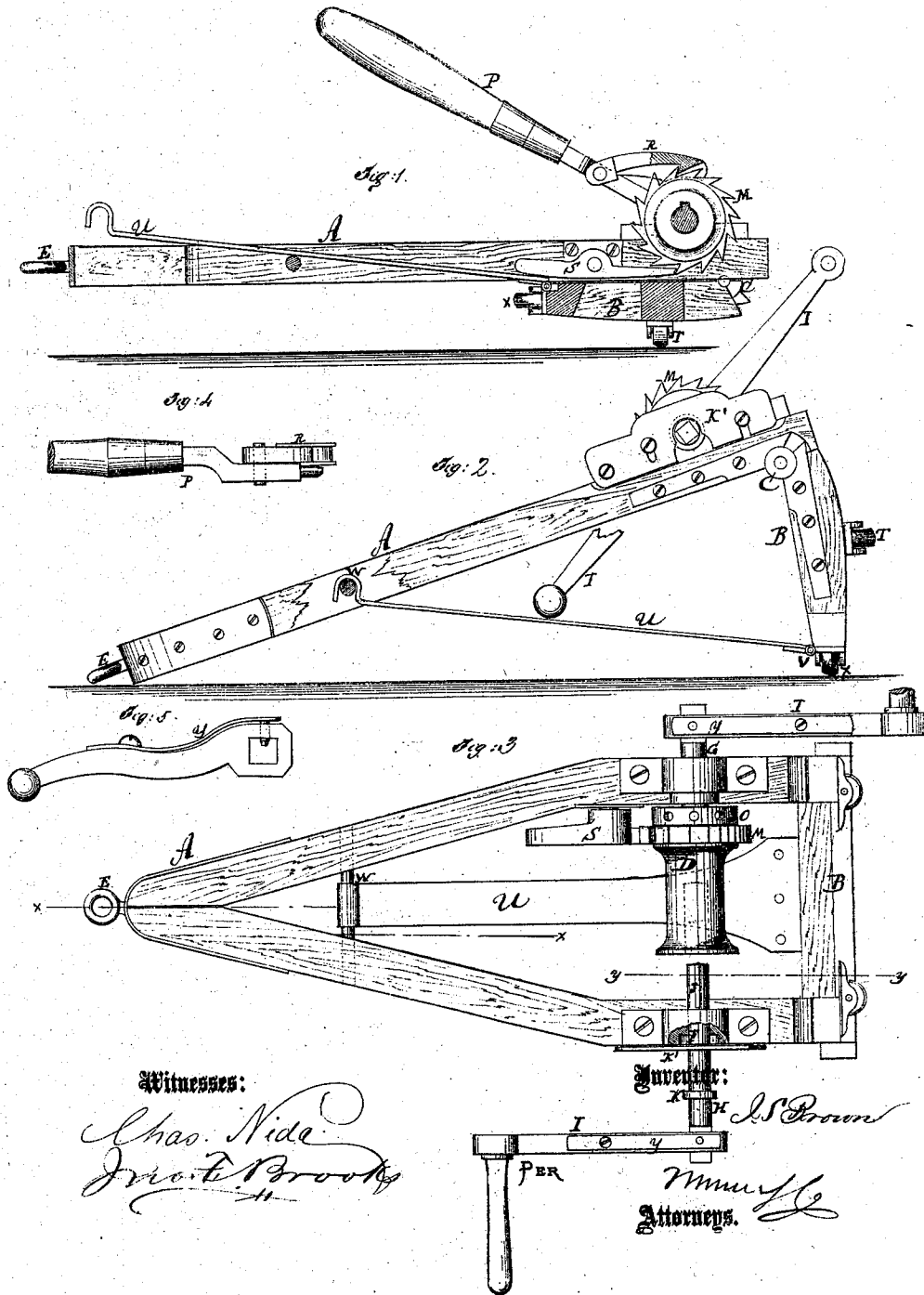


J. S. Brown,

Miner's.

No. 100,594.

Patented Mar. 8, 1870.



UNITED STATES PATENT OFFICE.

JOHN S. BROWN, OF SCHENECTADY, NEW YORK.

IMPROVEMENT IN ADJUSTABLE WINDLASSES.

Specification forming part of Letters Patent No. 100,594, dated March 8, 1870.

To all whom it may concern:

Be it known that I, JOHN S. BROWN, of Schenectady, in the county Schenectady and State of New York, have invented a new and useful Improvement in Adjustable Windlass; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to new and useful improvements in windlasses for use on canal-boats and on shipboard; and for all the purposes for which windlasses are employed; and consists in making a windlass so that it shall adjust itself to the line of draft in hauling on a line, and so that the power may be increased or diminished, and so that the line or rope may be readily connected with the drum, as will be hereinafter more fully described.

In the accompanying drawing, Figure 1 is a sectional side view of the windlass, the sectional parts being on the lines *xx* and *yy* of Fig. 3. Fig. 2 is a side elevation with parts broken away. Fig. 3 is a top or plan view. Fig. 4 is a detailed view of the ratchet-lever. Fig. 5 is a detail of the crank, either lever or crank being used in rotating the drum, as circumstances may require.

The frame of the windlass is made in two parts, A and B, hinged together, as seen at C.

D is the drum or cylinder, to which the rope is attached in using the windlass.

The part A of the windlass-frame is of a triangular form. The parts of which it is composed are connected firmly together at the rear end by a strong band, with an eye-bolt, E, at the extreme end for fastening the windlass to any suitable fixture on the deck of a vessel, or in any other location where the windlass is to be used.

From the end of the part A the side timbers spread as they extend forward sufficiently far apart to receive and support the drum-shaft F, as seen in Fig. 3. This shaft is in two parts, G and H, a crank, I, being fitted to the end of each part.

G is rigidly connected with one end of the drum. The other part H is allowed to slide

longitudinally in its box, and is connected with the drum by means of a hole in the drum which the shaft enters.

The hole is indicated by dotted lines, as seen in Fig. 3. The hole is grooved and the shaft is prevented from turning round in it by means of a feather, J, which enters the groove where the shaft H is shoved forward into the drum.

As seen in the drawing, the shaft is drawn out from the drum. This allows the rope to be readily adjusted on the drum.

K is a collar on the shaft which enters the recess in the box when the shaft is pushed into the drum; and K' is a drop-plate attached to the side of the journal-box, which falls over the shaft outside the collar, and keeps the shaft in place, as seen in Fig. 2.

On the other end of the drum there is a ratchet-wheel, M. O is a loosening on the shaft, with fulcrum-holes for receiving the end of the pawl-lever P. R is the pawl attached to the lever and operating upon the ratchet, as seen in Fig. 1.

S is a weighted holding-pawl, which prevents any back motion in the windlass, whether the latter is turned by the ratchet-lever or by the crank.

In operating the windlass with the lever P, the part B of the frame is doubled down under the other part, as seen in Fig. 1. The cranks I are removed. It is only when a heavy strain is required that the lever and ratchet is required, as for all light or ordinary draft the cranks are sufficient, and the windlass operated with much greater speed.

T represent small truck-wheels on which the windlass rests, and on which it readily adjusts itself to the draft of the line used from the point of resistance.

U is a brace which is hinged to the part G at V, and hooked onto a transverse rod in the part A, as seen at W.

When the cranks are used, or either of them, the windlass is placed in the position seen in Fig. 2, when it rests on the truck-rolls *x*, so that it may readily adjust itself, as before stated. The windlass being confined to the deck at the point E only, it will be seen that this adjustment must be immediate and perfect wheresoever applied.

The cranks I are fitted to the shaft with

square sockets, and are self-fastening by means of the spring-stops *y*. (Seen in Fig. 5.)

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

1. A windlass-adjustable by means of a single fastening, as seen at *E*, substantially as described.

2. A windlass frame made in two parts jointed together, so as to be adapted for heavy work, with the ratchet-wheel and lever,

or for light work with the shaft and its cranks, substantially as described.

3. The shaft *J*, made capable of being withdrawn from the drum and attached thereto, as and for the purpose specified.

The above specification of my invention signed by me this 11th day of January, 1870.

JOHN S. BROWN.

Witnesses:

GEORGE W. MABEE,

ALEX. F. ROBERTS.