

A. D. STOUT.

FRICITION-WINDLASSES FOR BARRELS, KEGS, &c.

No. 170,203.

Patented Nov. 23, 1875.

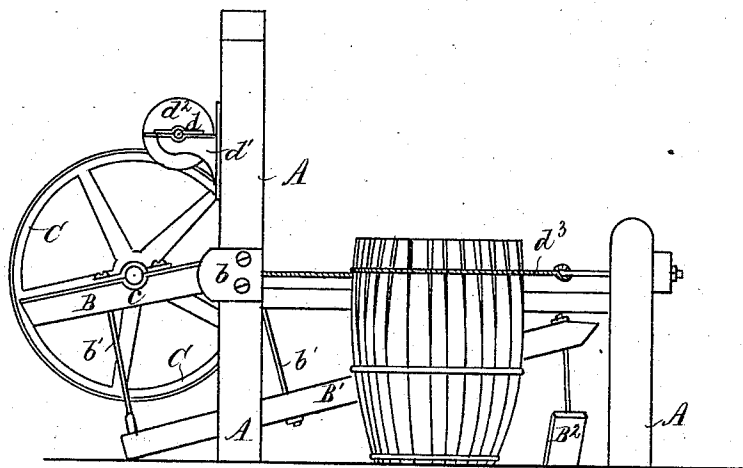


Fig. 1.

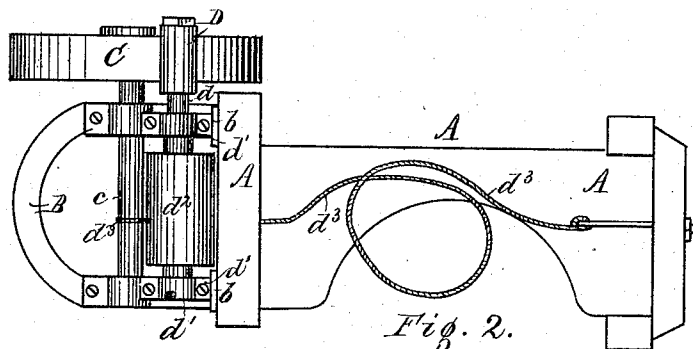


Fig. 2.

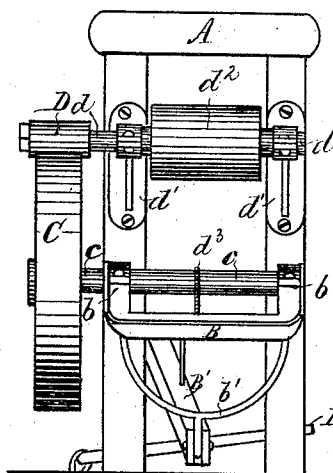


Fig. 3.

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UNITED STATES PATENT OFFICE.

ALONZO D. STOUT, OF ST. LOUIS, MISSOURI, ASSIGNOR TO HIMSELF AND DANIEL W. JAYNES, OF SAME PLACE.

IMPROVEMENT IN FRICTION-WINDLASSES FOR BARRELS, KEGS, &c.

Specification forming part of Letters Patent No. **170,203**, dated November 23, 1875; application filed July 6, 1875.

To all whom it may concern:

Be it known that I, ALONZO D. STOUT, of St. Louis, county of St. Louis and State of Missouri, have invented an Improved Friction-Windlass for Barrels, Kegs, &c., of which the following is a specification:

It is well known that a windlass is used to operate upon an unfinished barrel (that is, when same has its staves only hooped at the lower end) in order to draw in the upper end of the staves or head of barrel, and shape the same to the required barrel form.

The use of the ordinary windlass for the above purpose requires extra manual labor to insure proper operation; also necessitates the same revolutions to unwind its rope or release the barrel, and to reoperate the windlass, thus incurring extra time and limiting its capacity for work, and otherwise incurs extra expense.

The object of this invention is, therefore, to form an improved friction-windlass to shape barrels, casks, kegs, &c., and by the use whereof the difficulties and disadvantages above stated are avoided.

Of the drawing, Figure 1 is a side elevation, showing my improved windlass operating upon a barrel. Fig. 2 is a top plan of my invention. Fig. 3 is an end elevation thereof.

A is the frame, constructed as usual, and upon which my improved operating parts are mounted as follows: B (see the figures) is an adjustable frame, hinged at *b* to the upright part of the frame A. The frame B I further connect by proper rods *b'* to the end of a treadle-lever, *B¹*, as shown in Figs. 1 and 3. The rear end of lever *B¹* properly connects to a foot-treadle, *B²*. (See Figs. 1 and 3.)

By, therefore, operating the foot-treadle the hinged frame B can be raised or lowered—an advantageous feature, as will hereinafter appear.

The hinged frame B carries a large friction-wheel, C, which is mounted upon the outer end of a shaft, *c*, which has its bearings in proper journals secured to said frame B. (See figures.) By raising the adjustable frame B it carries the large wheel C with it, and causes it to come in friction contact with an upper driving friction-wheel, D. (See Figs. 2 and 3.)

The driving-wheel D is keyed to an upper shaft, *d*, which turns in proper journal-brackets *d¹*, secured to the upright frame A. *d²* is the belt-wheel on shaft *d*, and by means thereof it is connected to a power-source, by which the windlass is operated. Secured to the shaft *c* is one end of a chain, rope, or wire-rope, *d³*, the opposite end of which is properly fastened to the rear end of the frame A.

Thus constructed, the operation of my improvement is as follows: The barrel is placed by the operator in the frame A, with the loop of the wire-rope round the head of the barrel, as indicated in Fig. 1. He next operates the foot-treadle, so that the frame B causes its wheel C to be raised, so as to establish friction contact with the driving friction-wheel D. This done, the windlass immediately revolves and causes the wire-rope to wind round the barrel, drawing in its staves until the barrel assumes its required form and shape. The top hoops being placed on the barrel, it is ready to be released and taken away from the windlass, and for this purpose the operator needs simply to release the foot-treadle, causing the frame B and its wheel C to immediately drop to original position, and as the windlass is then out of frictional contact with power-source, the wire-rope instantly releases itself from the barrel.

It will be, therefore, noticed that the drop-gravity feature above described enables the operator to release the windlass from the power-source immediately, and that this sudden release unwinds the wire-rope quickly, and consequently the barrel is released immediately. Thus a great saving in time is had, enabling the windlass to operate upon a greater number of barrels than by the old means can possibly be accomplished. These new results are further due to the fact of my arrangement of frictional contact with power-source, whereas the usual windlass of this class has gearing or tooth wheels, the operation of which incurs, as before stated, loss of time, extra labor, and expense.

What I claim is—

The combination of the friction-wheels C D, the drop-gravity frame B, its connection to a foot-treadle, *B²*, the rope *d³*, said parts being

constructed and arranged to form a windlass of the character herein shown and described, and by means whereof said rollers can be instantly placed in or out of friction contact, and the gravity of said frame B is utilized to unwind said rope, in the manner and for the purpose set forth.

In testimony of said invention I have hereunto set my hand.

ALONZO D. STOUT.

Witnesses:

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