2 Sheets—Sheet 1.

C. POHL.

Barrel and Cask Scrubbing Machine.

No. 213,447. Patented Mar. 18, 1879.

Fig. 1.

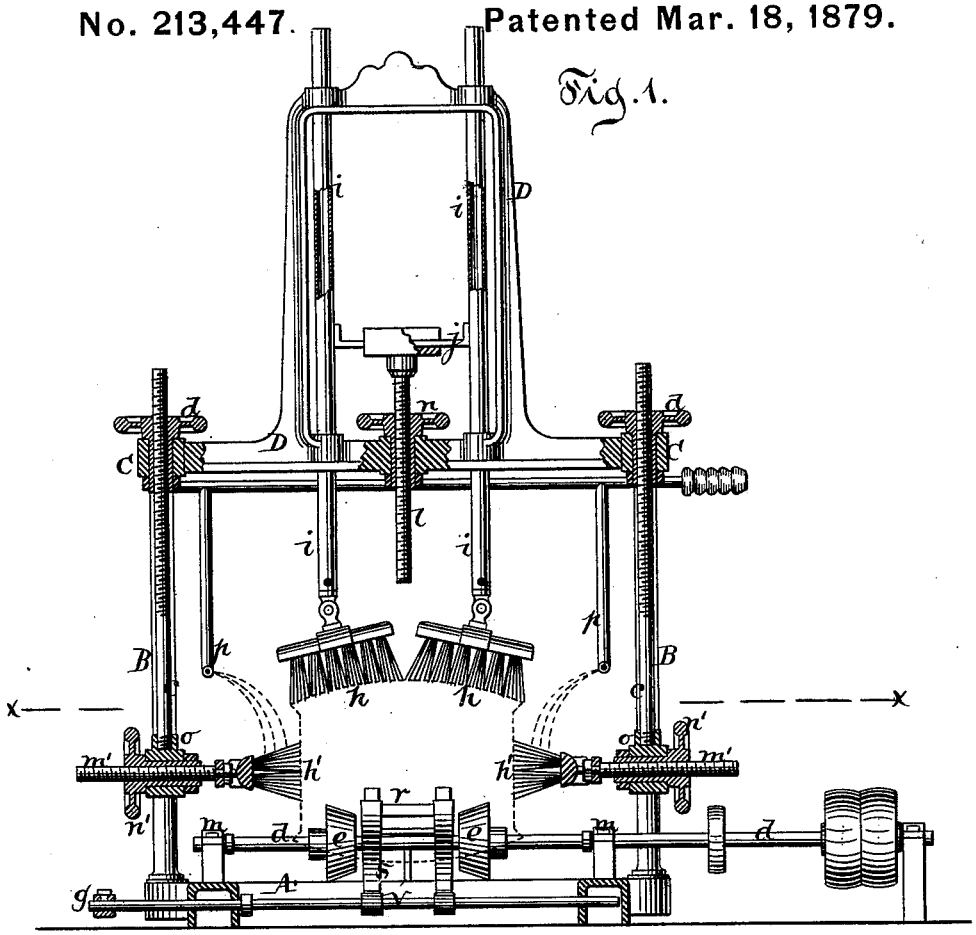
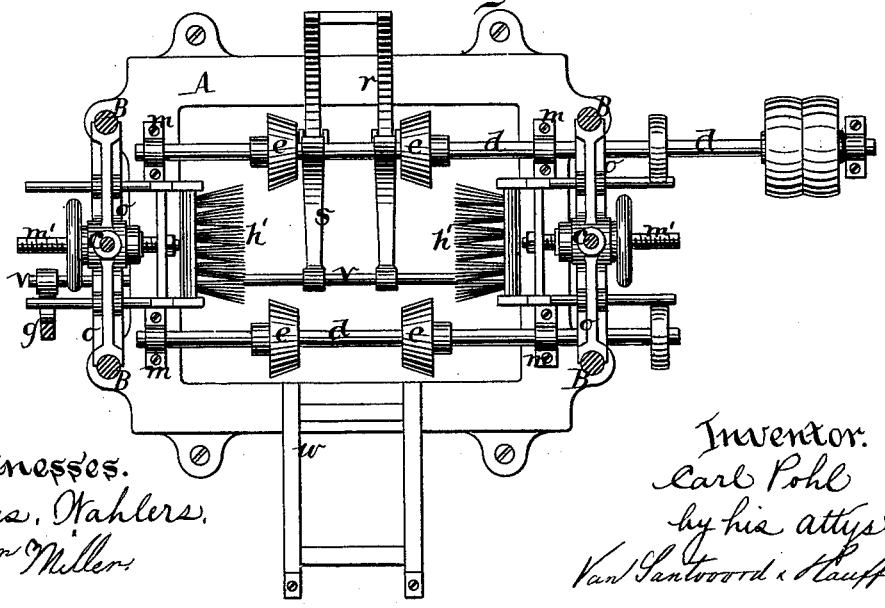


Fig. 2.



Witnesses.
Chas. Wahlers.
Wm Miller.

Inventor.
Carl Pohl
by his attys.
Van Santvoord & Hauff

2 Sheets—Sheet 2.

C. POHL.

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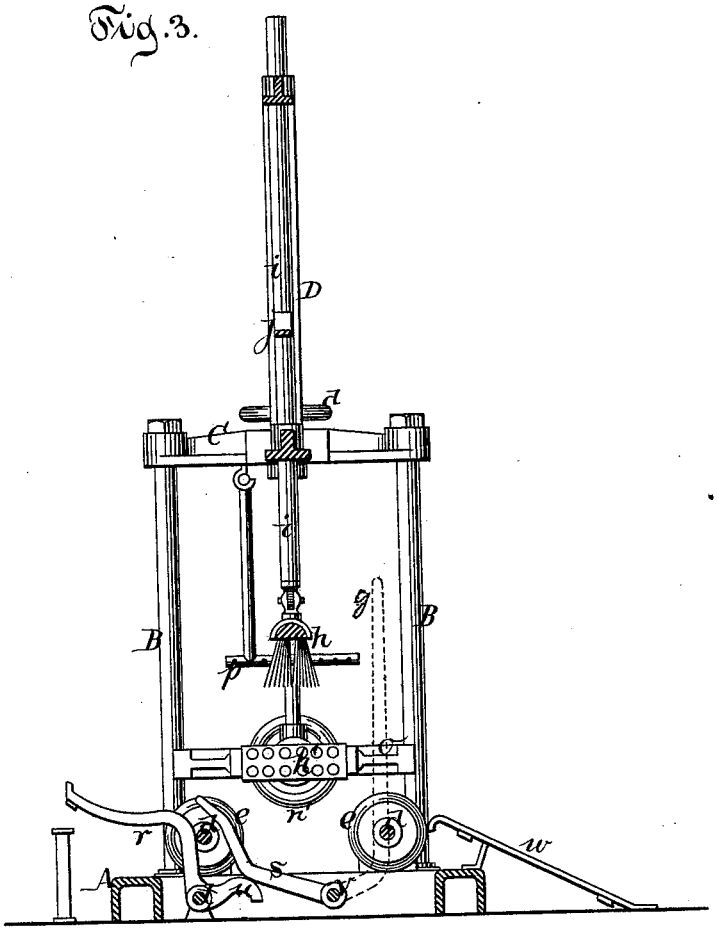
Fig. 3.



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UNITED STATES PATENT OFFICE.

CARL POHL, OF DRESDEN, SAXONY, GERMANY.

IMPROVEMENT IN BARREL AND CASK SCRUBBING MACHINES.

Specification forming part of Letters Patent No. **213,447**, dated March 18, 1879; application field January 3, 1879; patented in Germany, September 6, 1877, and in France, September 3, 1877.

To all whom it may concern:

Be it known that I, CARL POHL, of Dresden, in the Kingdom of Saxony and Empire of Germany, have invented a new and useful Improvement in Machines for Scrubbing Barrels and Casks, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a longitudinal vertical section of a machine containing my invention. Fig. 2 is a horizontal section in the plane of the line *x x*, Fig. 1. Fig. 3 is a vertical cross-section thereof.

Similar letters indicate corresponding parts.

My invention relates to machines for scrubbing the outside of barrels and other cylindrical vessels; and it consists in certain combinations of the following instrumentalities, namely: a series of rollers adapted to support and impart a revolving motion to the barrel to be scrubbed; brushes for cleaning the side of the barrel; brushes to clean the ends of the same, and means for supplying the brushes with water; a pivoted frame located adjacent to the rollers, for receiving the barrel and depositing the same on the rollers, and a pivoted frame located between the rollers to remove the barrel therefrom, this last-named frame being arranged to actuate the receiving-frame, whereby one is enabled to thoroughly scrub or clean a barrel on its outer surface with little labor and in a short space of time.

In the drawings, the letter A designates the base part of the machine-frame, from which rise two pairs of standards, B B, which are each joined at the top by a cross-head, C, supporting a top frame, D. The base-frame A carries pillow-blocks *m*, forming the bearings for two parallel shafts, *d d*, on which are secured rollers *e e*. These rollers serve to support the barrel to be scrubbed, and their shafts *d d* are arranged to receive a revolving motion, so that a like motion can be imparted to the barrel.

Motion may be given to the roller-shafts *d d* either by hand or power, as may be found most expedient.

The letters *h h* designate two brushes, whose function is to clean the side of the barrel, and *h′ h′* are brushes to clean the opposite ends thereof. The brushes *h h* are attached to the lower ends of rods *i i*, a swivel-joint being, preferably, used for this purpose, so that the brushes may accommodate themselves to the shape of the barrel to be washed, and said rods slide in the top frame, D, the same being connected together by a cross-piece, *j*, so that they move in unison. The cross-piece *j* rests on the head of a screw, *l*, which passes through a nut, *n*, confined in the top frame, D, and cross-head C, so that by turning this nut the rods *i i* can be raised or lowered, to adjust the brushes *h h* in the required position relatively to the diameter of the barrel. I arrange the cross-piece *j* to rest loosely on the screw *l*, so that the rods *i i* and the brushes are susceptible of being raised independently of the screw.

The rods *i i* are hollow, and constitute the means whereby the brushes *h h* are supplied with water; but this can obviously be accomplished in other ways.

The end brushes, *h′ h′*, are each secured to a screw, *m′*, passing through a nut, *n′*, which is confined in a bridge or cross-head, *o*, so that by turning this nut at either or both ends of the machine either or both brushes can be moved horizontally and adjusted in the required position relatively to the length of the barrel.

In order to steady the end brushes, *h′ h′*, I secure the same to rods sliding in the bridge *o*, as shown in Fig. 2.

The bridge *o* moves up and down between the standards B, and it is supported by a vertical screw-rod, *c*, engaging with a nut, *d*, so that the end brushes, *h′ h′*, are rendered adjustable also in a vertical direction.

The means for supplying the end brushes, *h′ h′*, with water consist in the example shown of perforated sprinkling-tubes *p*, which are connected to a suitable feed-pipe.

The letter *r* designates a frame serving to receive the barrel to be scrubbed and deposit the same on the rollers *e*, and *s* is a frame for removing the barrel from the rollers. The receiving-frame *r* is situated adjacent to or in front of the rollers *e*, and is supported by pivots *t*, on which it is pivoted, while it is provided with inwardly-projecting toes *u*. (See Fig. 3.) The barrel-removing frame *s* is located

between the rollers *e*, and is secured to a rock-shaft, *r*, to which is also secured a handle, *g*. When the barrel-removing frame *s* is in its normal position it is beneath the barrel resting on the rollers *e*, and rests on the toes *u* of the receiving-frame, as shown in Fig. 3.

In the operation of my machine the barrel to be scrubbed is placed on the receiving-frame *r*, and the barrel-removing frame *s* is brought to its normal position, or, in other words, it is brought in contact with the toes *u* of the receiving-frame with sufficient force to tilt the receiving-frame, whereupon the barrel rolls down on the rollers *e*. A revolving motion is then imparted to the rollers *e*, and the water is turned on, the brushes having first been properly adjusted, so that the barrel is rotated in contact with the brushes, and when the barrel reaches the proper state of cleanliness the frame *s* is tilted, whereby the barrel is removed from the rollers and ejected from the machine, rolling down an inclined plane, *w*, to the ground.

When the receiving-frame *r* is tilted by the action of the barrel-removing frame it is brought to the position shown in Fig. 3. When in this position a barrel is placed thereon, the outer end thereof sinks down, thereby causing an elevation of the inner end or toes *u*.

I am aware that machines have heretofore been constructed for keeping various kinds of vessels in rotation under the action of brushes and jets of water, and that the vessels in some of these machines have been caused to rotate by the rotation of shafts upon and partially between which they have been placed, and I do not claim, broadly, the invention of such a machine or devices.

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

1. The combination, with the supports for holding the barrel, of a frame pivoted on a rock-shaft beneath said supports, and adapted to swing up between the supports for removing the barrel from the same, substantially as and for the purpose described.

2. The combination, with the supports for holding the barrel, of a rocking frame pivoted beneath the supports and projecting in front thereof, for receiving the barrel and delivering it on the supports, and pivoted frame beneath and between the supports, adapted to swing vertically for removing the barrel from the supports after being cleaned, substantially as and for the purpose described.

3. A machine for scrubbing barrels in which are combined the following instrumentalities, to wit: two horizontal side shafts having suitable rollers for supporting and rotating the barrel, a vertically-adjustable rod provided at its lower end with a swiveled or jointed brush, whereby it can adjust itself to the curvilinear form of the barrel, vertically and laterally adjustable end brushes, and means for supplying said brushes with the washing-fluid, the whole constructed and arranged to operate substantially as and for the purpose described.

4. The combination of swiveled and vertically-adjustable brushes *h*, for scrubbing the sides of a barrel, laterally and vertically adjustable brushes *h'*, arranged opposite each other, for scrubbing the ends of said barrel, and rotating wheels or rollers for supporting and revolving the barrel while being scrubbed, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL POHL.

Witnesses:
LÉON KLEMPERER,
ALBERT ZOLLER.