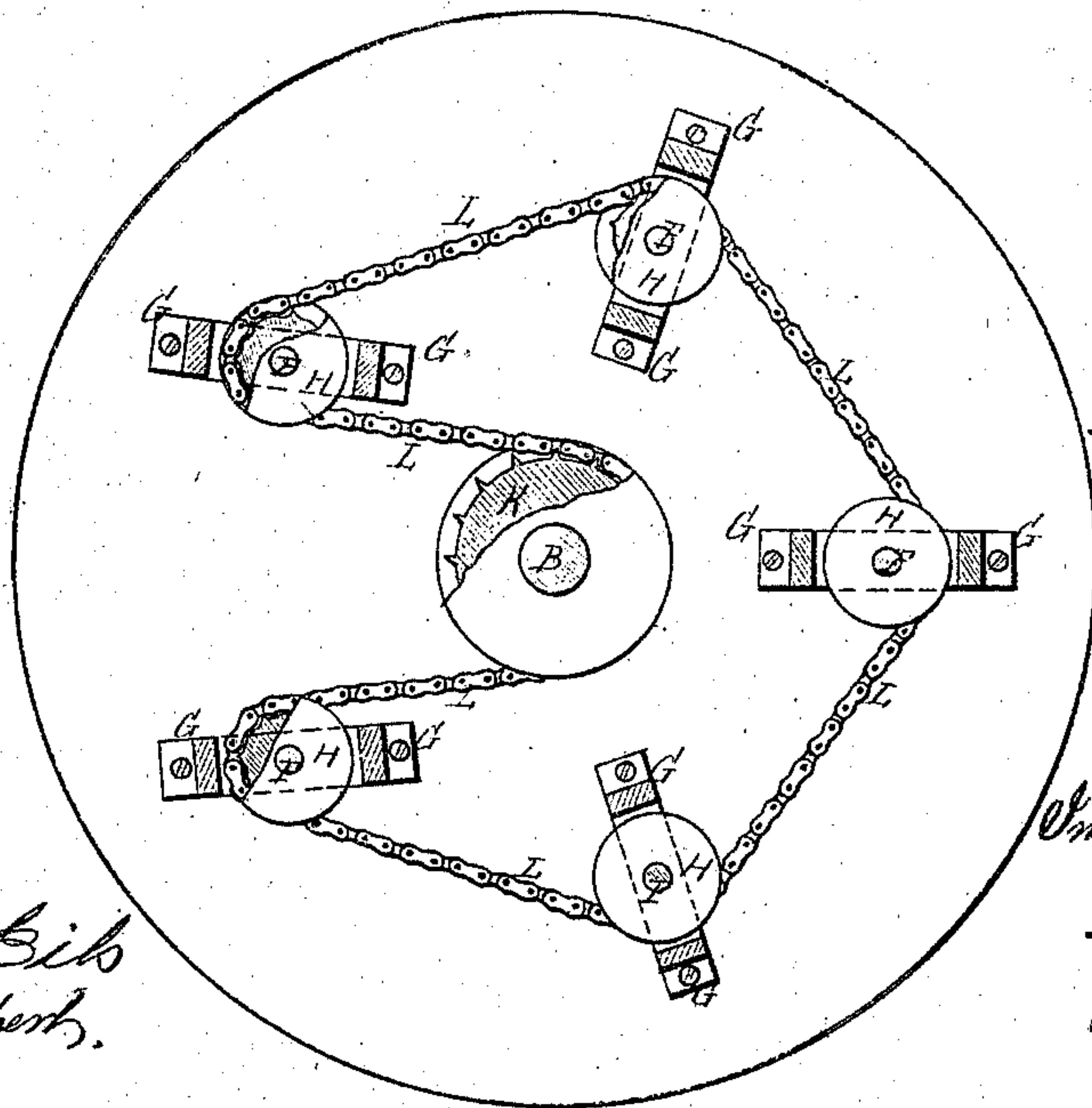
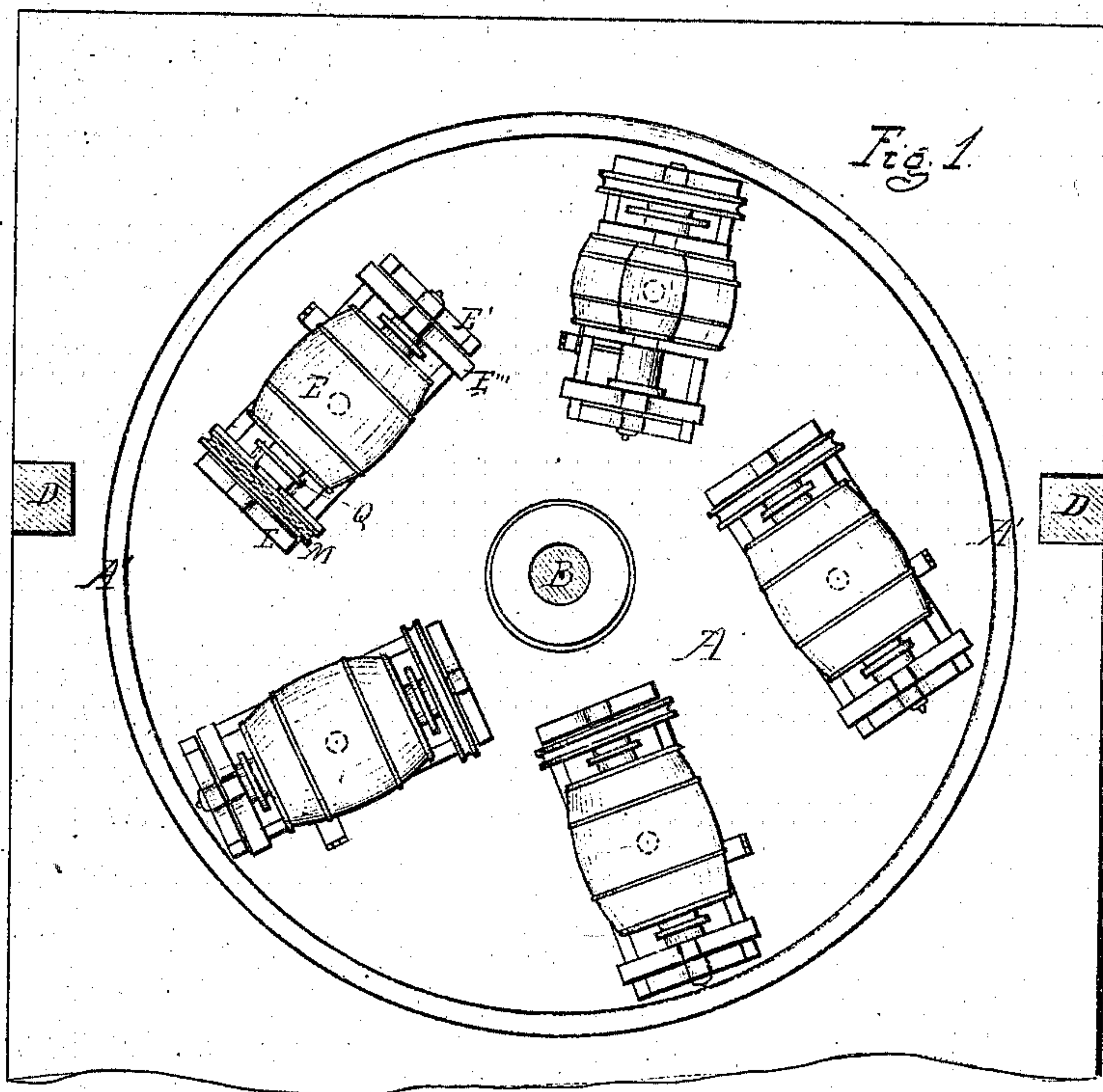


*I. Pfeiffer,*  
*Barrel Cleaner.*

*2. Sheets. Sheet 1.*

*No. 97,688.*

*Patented Dec. 7. 1869.*



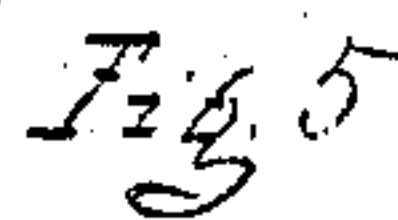
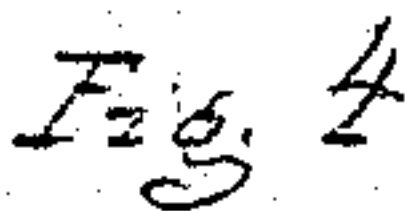
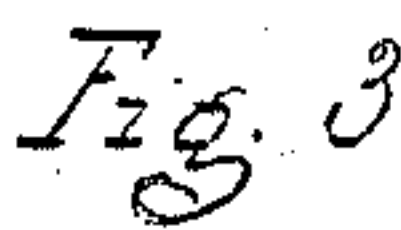
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# United States Patent Office.

IMMANUEL PFEIFFER, OF NEW YORK, N. Y., ASSIGNOR, FOR ONE-HALF,  
TO HENRI M. BRAEM, OF SAME PLACE.

*Letters Patent No. 97,688, dated December 7, 1869.*

## IMPROVEMENT IN APPARATUS FOR CLEANING BARRELS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, IMMANUEL PFEIFFER, of New York city, county of New York, and in the State of New York, have invented a new and useful Improvement in Machines for Cleaning Hogsheads, Barrels, Casks, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a top or plan view.

Figure 2 is a bottom view.

Figure 3 is part of an elevation.

Figure 4 is a plan view of one of the revolving frames, in which the barrel, cask, &c., is secured.

Figure 5 is a vertical transverse section of a revolving frame.

The same letters of reference, where employed in the drawings, denote identical parts.

The nature of my invention consists in the construction of a machine, in which one or more hogsheads, barrels, casks, &c., may be cleaned outside and inside.

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

A is a circular vessel or reservoir, the upper part of which, A', is inclined toward the centre.

The vessel A is, at its centre, secured to a vertical shaft, B, and revolves with the shaft B.

The socket C serves as a rest for the shaft B, and has, at its upper surface, a groove or recess large enough to admit the shaft to enter, and allow it to revolve with the least friction possible.

At its upper end, the shaft B is secured to the vertical frame D, and provided with a handle or pulleys, in such a manner that it may be rotated either by hand, horse, or steam-power. Pulleys might also be placed below the vessel A, and, in such case, the frame D might be entirely dispensed with.

The vessel A serves as a receptacle for one or more revolving frames E, in which one or more barrels, casks, &c., are suspended.

The vessel A is filled with water when in operation, and, consequently, great care must be taken that it does not leak, and that packings are provided where the main shaft B and the minor shafts F penetrate the bottom of same.

The water in the vessel A serves to clean the outside of the barrels, casks, &c., and a perfect cleaning will be accomplished in about one minute.

The barrel, cask, &c., which is to be cleaned, is partly filled with water, and then placed in the revolving frame E, when, by revolving the main shaft B, three different movements are imparted to it, which has the effect of cleaning a barrel thoroughly in less than two minutes.

The revolving frame E consists of a horizontal plat-

form or bench, resting on a movable vertical shaft, F. On said shaft, two ratchet-wheels are secured, one wheel above and one wheel below the bottom of the vessel A.

The shaft F rests in the base G, which is secured at G' to the under surface of the bottom of vessel A.

The lower ratchet-wheel H is in the same level as the ratchet-wheel K, which is permanently secured to the socket C, and both wheels are connected by a chain, L. The links of the chain L fit into the ratchets, and, when the vessel A is rotated, the chain L will rotate the smaller ratchet-wheels H.

Fig. 2 represents the position of the chain L, wheel or sheave K, and wheels H.

Thus the revolving frame E rotates on its axle F, and also round the main or driving-shaft B; but, in order to complete and quicken the cleaning process, a third revolution is procured, whereby the barrels, secured in the revolving frame E, turn on their own axis. This operation is performed in the following manner:

The revolving frame E is, at its inner end, provided with a vertical grooved wheel, M, which is secured to the frame E'.

Two friction-wheels, N, are placed below the platform E, one on each side of the platform, and provided with grooves cut in the edge of the wheel.

A chain, M', connects the upper grooved wheel I with the wheel M, passing over the friction-wheels N, and, as the wheel I is permanently secured to the shaft F, it will, through the chain M', communicate motion to the wheel M, when the shaft F is rotated.

As the length of barrels or casks may be of different dimensions, the device by which they are secured in the revolving frame is adjustable, and consists of a circular plate, P<sup>1</sup>, which is secured to a cross-head, E'', by adjustable thumb-screws, P<sup>2</sup>. At the centre of plate P<sup>1</sup> is a projection, P, in which is inserted an India-rubber cushion, Q, projecting out from P<sup>2</sup>, and resting against the end of the barrel, cask, &c., secured in the revolving frame E.

The device for keeping the barrel and cask in place is the same at both ends, the only difference is, that at one end it is fastened to the cross-head E, while at the other end it is fastened to the wheel M.

Figs. 3 and 4 represent a revolving frame, in which no barrel is placed.

R is a bar resting on the platform E, and secured by means of the fastenings R'. Said bar is, at its centre, bent sufficiently, (forming a crank,) and a bolt, S, is here fastened to the bar R. At one end, outside of the platform E, a lever, O, is attached to the end of bar R.

The outer vertical part E', of the revolving frame E, is pivoted, at c, to the platform E; and the bolt S, which at one end is secured to the crank or bar R, is at its other end secured to the vertical frame E'.

When the lever O is moved, it will, through the



bent bar or crank R and bolt S, communicate motion to the vertical frame E', to the cross-head E'', and the device resting against the end of the barrel, cask, &c., thus enabling the operator to secure any size barrel, cask, &c., in the revolving frame E. Thus the distance between the India-rubber cushions may be regulated according to the length of the barrel, cask, &c.

One revolving frame may serve as a support for two or more minor casks, and, with some slight alterations from the herein described invention, other bodies may be placed in the revolving frames, and cleaned in the same manner as the barrels, casks, &c., or churns, washing-machines, &c., may be suspended in the frames E.

As the barrel, cask, &c., placed in the revolving frame is exposed to three different movements, there is no place for it, neither outside nor inside, that is not worked by or in contact with the water. The revolving frames moving round the main driving-shaft, causes the water, with great force, (by the centrifugal power,) to be thrown or forced from the centre of the machine, and, as the barrels, casks, &c., always change their position to the centre of the machine, the cleaning process will be thoroughly effected in a very short time. The machine may be constructed in such a manner that it may move in a vertical as well as in a horizontal position.

Having thus described my invention,

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

1. A machine for cleaning hogsheads, barrels, and

casks, combining in its construction a revolving circular vessel, around the axis of which are arranged (on pivots) one or more revolving frames, in which such hogsheads, barrels, and casks are to be suspended, a stationary sheave, an endless chain for rotating the pivoted revolving frames, and another endless chain for rotating the hogsheads, barrels, and casks round their axis, substantially as and for the purpose set forth.

2. The combination and arrangement of vessel A, main or driving-shaft B, socket C, stationary sheave or ratchet-wheel K, movable ratchet-wheels H, endless chain L, shafts F, ratchet-wheels I, and the revolving frames E, when constructed substantially as and for the purpose set forth.

3. The combination and arrangement of the revolving frames E, consisting of platform E, vertical frames E' and E'', cross-head E'', plate or flange P<sup>1</sup>, adjustable thumb-screws P<sup>2</sup>, projection P, India-rubber cushions Q, crank or bent rod R, bolt S, lever O, inclined grooved friction-wheels N, endless chain M', and wheel M, when constructed and operated substantially as and for the purpose set forth.

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

IM. PFEIFFER.

Witnesses:

J. B. BRINSMADE,

H. GUNER.