

(No Model.)

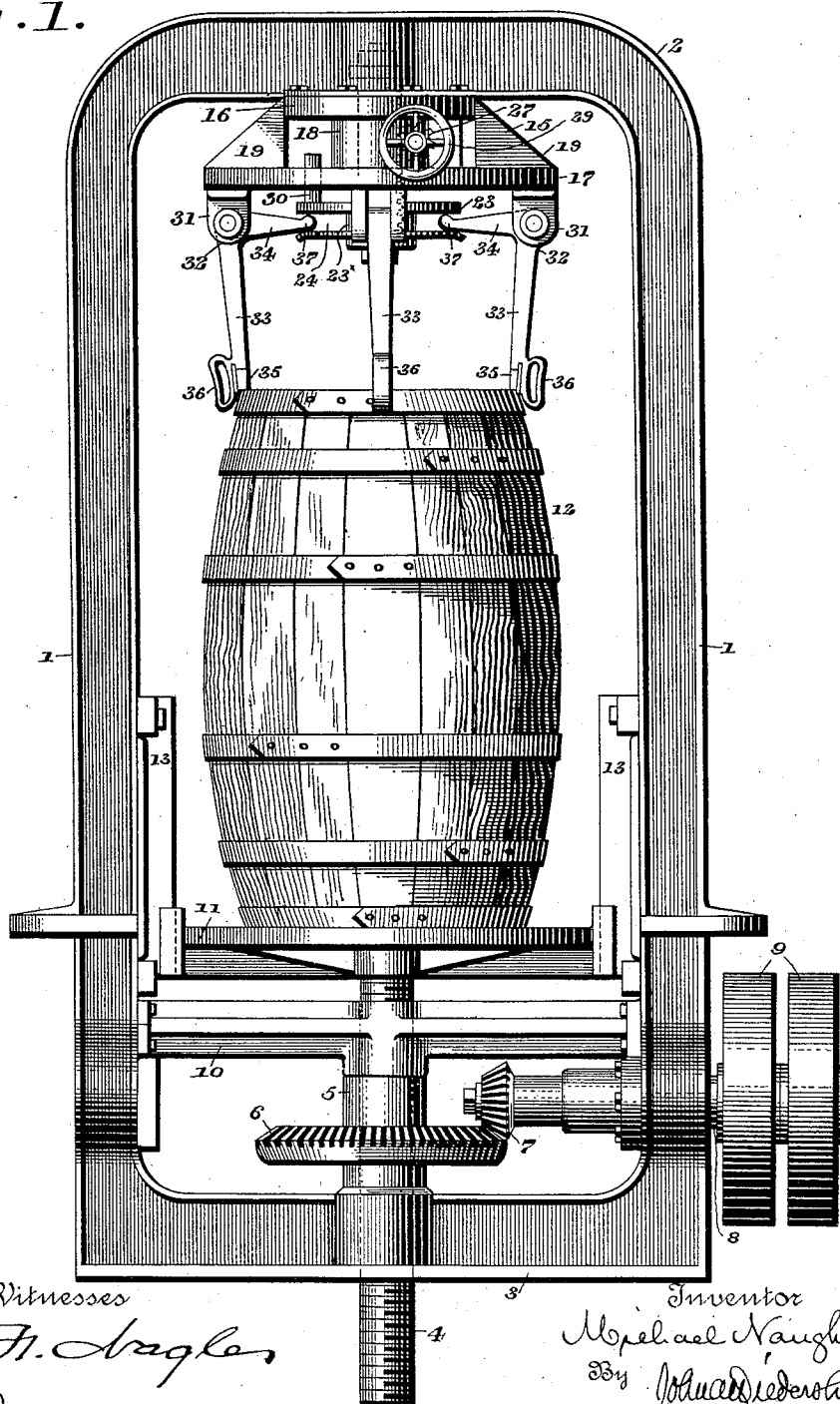
2 Sheets—Sheet 1.

M. NAUGHTON.
HOOP SETTING OR DRIVING MACHINE.

No. 566,006.

Patented Aug. 18, 1896.

Fig. 1.



Witnesses

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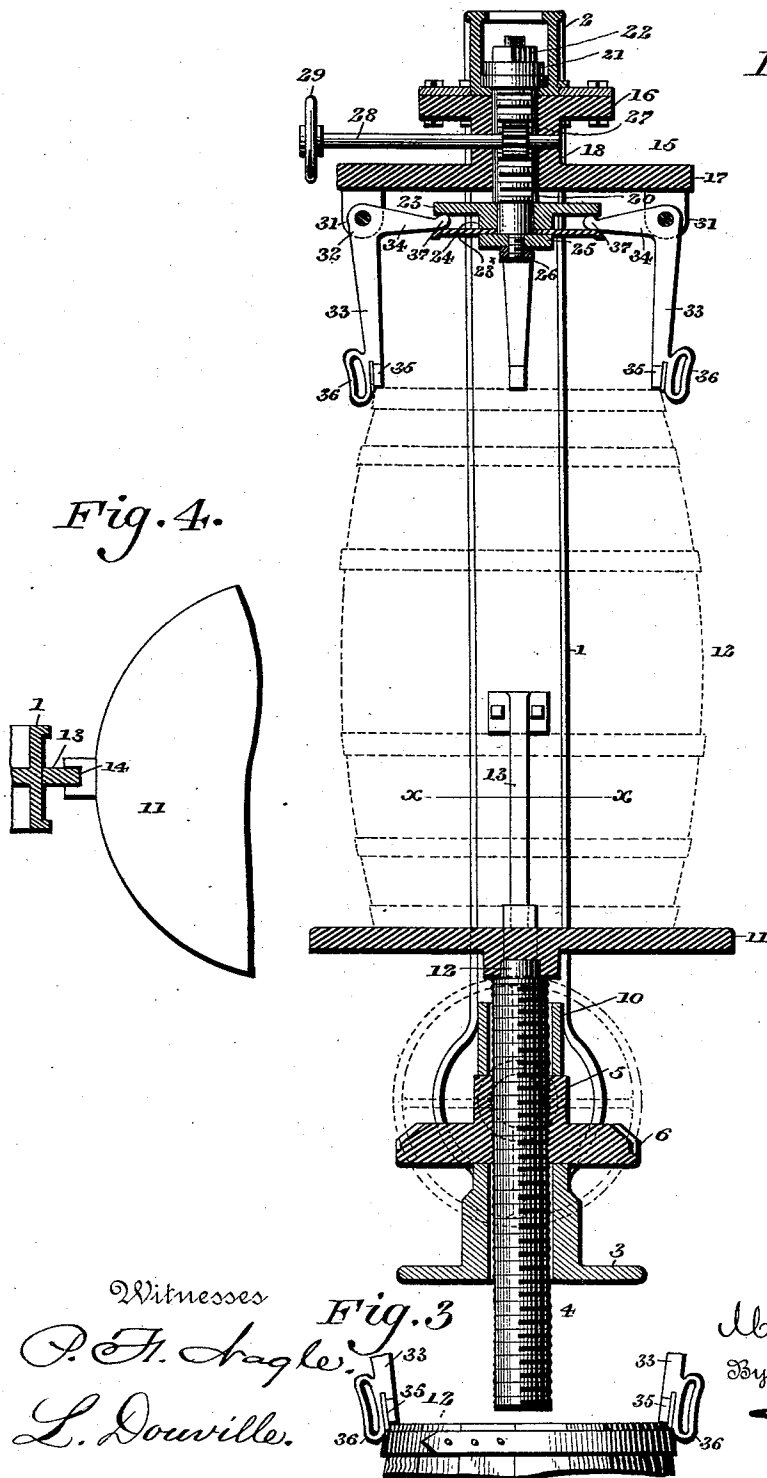
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Witnesses
P. H. Ingle.
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Fig. 3

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UNITED STATES PATENT OFFICE.

MICHAEL NAUGHTON, OF PHILADELPHIA, PENNSYLVANIA.

HOOP SETTING OR DRIVING MACHINE.

SPECIFICATION forming part of Letters Patent No. 566,006, dated August 18, 1896.

Application filed March 27, 1895. Serial No. 543,334. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL NAUGHTON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Hoop Setting or Driving Machines, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a novel construction of hoop setting or driving machine, whereby hoops may be set or driven on casks or barrels of any size with ease and rapidity, provision being made for readily adjusting the setting or driving mechanism to hoops of different diameters, and also for giving a vertical adjustment to both the support for the barrel and to the setting or driving mechanism.

It further consists of novel details of construction, all as will be hereinafter set forth.

Figure 1 represents a front elevation of a hoop setting or driving machine embodying my invention. Fig. 2 represents a vertical sectional view of the principal operative portions of the same. Fig. 3 represents a detail view showing the top of a barrel and one of the chime-hoops forced into position. Fig. 4 represents a section on line *x x*, Fig. 2.

Similar numerals of reference indicate corresponding parts in the several figures.

Referring to the drawings, 1 designates the framework of the machine, which has the upper and lower cross-pieces 2 and 3, respectively. The lower cross-piece 3 has the threaded shaft 4, passing freely therethrough and engaging the internally-threaded sleeve 5, which rests on said cross-piece and has the toothed rim 6, which meshes with the bevel-gear 7, the latter being secured to a shaft 8, which is mounted in suitable bearings, and is rotated in any suitable manner, as by power applied to the pulleys 9.

10 designates a cross-piece which is rigidly secured to the lower portion of the framework 1 and serves as a stop or rest for the platform or base 11, upon which is supported the barrel 12. The said cross-pieces 10 and 3 hold the sleeve 5 in position, the shaft 4 passing freely through both and having its upper end 12 resting in a suitable seat in said platform.

13 designates upright guides, which are

secured to the framework 1 and which enter the grooves 14 in the sides of said platform, as will be understood from Fig. 4, whereby said platform is guided in its vertical movement.

15 designates a frame secured, preferably, to the cross-piece 2, the same consisting of the flanges 16 and 17, connected by the neck 18, said flanges being suitably braced by means of the ribs 19.

20 designates a rack which moves freely in said neck 18, the downward movement of said rack being limited by means of the washers 21, held in position by the nut 22, while its upward movement is limited by means of the disk 23, which has a hub 23^x and a spring-plate 24, adjacent thereto, but separated from said disk by said hub, both the disk and plate being held in position by the washer and nut 25 and 26, respectively.

The rack 20 is actuated by means of the pinion 27, which is attached to the stem 28, which is suitably journaled in said neck and provided with the hand-wheel 29, whereby the pinion is rotated. The upright pin 30 is attached to the disk 23 and passes freely through a hole in the flange 17, thus serving as a guide.

31 designates ears attached to said flange 17, to which are pivotally secured the elbow-levers 32, whose limbs 33 and 34, as will be noticed, are inclined to each other at preferably an acute angle, the ends 37 of the limbs 34 entering the space between the disk 23 and the plate 24. In the lower portion of the vertical limbs 33 are secured the drivers 35, which are adapted to contact with the hoops on the barrel or cask and are made of solid metal and preferably provided with a groove and an offset to prevent the chime-hoops from being driven too far.

The depending limbs 33 are provided with handles 36, whereby any of the said drivers can be released from a hoop whenever desired, said handles being of such shape and so placed that its lower wall serves as a guide to the driver 35, and it will further be noticed that the arms are pivoted outside or above the intersection of the central lines of the said arms, so that when the pressure is applied the lower arms will be forced to the side of the barrel, and it will also be evident that said drivers 35 may be made interchangeable

or integral with the arms 33, as may be desired.

The operation is as follows: A barrel having been placed on the platform and the hoop placed loosely thereon, the drivers are adjusted to the diameter of said hoop by the proper manipulation of the hand-wheel and pinion. The sleeve 5 is then caused to revolve by means of the gearing seen in Fig. 1, whereupon the threaded shaft is elevated, as is also the platform 11, carrying the barrel, and the hoop will be forced against the drivers and thus driven firmly and evenly at all points upon the barrel. When the same has been hooped, it can be removed and a new one placed on the platform and the operation repeated. The drivers 32 are readily adjusted to hoops of different diameters by rotating the pinion 27 and thus moving the rack up and down, whereupon it will be seen that the engagement of the ends 37 of the limbs 34 between the disk 23 and plate 24 will cause the aforesaid drivers 35 to be moved in or out, the spring-plate always bearing against the lateral limbs of the drivers and serving to retain them in their adjusted position, as is evident.

It will of course be understood that the shaft 8 can be rotated by hand, if desired, and that the number of drivers can be increased or diminished according to requirements. It will also be noted that in locating a hoop with respect to the drivers the lower portions of the handles 36 serve to guide the hoop into the groove of said drivers, whereby said hoop will be properly seated therein, as will be apparent from Fig. 3.

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

1. A hoop-setting device consisting of a frame, with upper and lower cross-pieces, an intermediate cross-piece rigidly secured to the sides of said frame, a platform guided in ways in the sides of said frame and provided with operating mechanism secured thereto, and a supplemental frame secured to said upper cross-piece and provided with a rack, freely moving in a neck thereof, a disk and spring-plate connected with said rack, and elbow-levers mounted on the said supplemental frame, each with a limb between said plate and disk, and drivers on the other limbs,

said parts being combined substantially as described.

2. In a hoop setting or driving machine, a frame, with an upper cross-piece, a supplemental frame secured to said upper cross-piece and consisting of flanges with a connecting-neck, a rack freely moving in said neck, means connected with said rack for limiting the movements thereof, a pinion mounted on a supplemental frame for operating said rack, a disk and spring-plate connected with said rack, elbow-levers mounted in ears on one of the flanges of the supplemental frame, one of the limbs of each of said levers having one of its ends between said disk and plate and the other limb having a driver secured thereto, said parts being combined substantially as described.

3. A hoop setting or driving machine consisting of a frame having upper and lower cross-pieces, a vertical platform with operating mechanism connected with the lower part of the frame, a supplemental frame, connected with the upper cross-bar, a rack vertically movable in said latter frame, having a disk and a spring-plate attached thereto, pivoted elbow-levers having a limb between said disk and spring-plate, and drivers connected with the other limbs of said levers, said parts being combined substantially as described.

4. In a machine for the purpose set forth, the stationary frame 15, the reciprocating rack 20 movable in said frame, the disk 23 and spring-plate 24 connected with said rack and pivoted elbow-levers having drivers on their lower limbs and their upper limbs being held between said disk and plate, said parts being combined substantially as described.

5. In a machine for the purpose set forth, a frame, a rack movable therein, a disk and a spring-plate connected with said rack and having an interposing hub, elbow-levers pivoted to said frame, and having drivers on their lower limbs, the other limbs projecting between said disk and plate, and means connected with said rack and frame for limiting its downward movement, said parts being combined substantially as described.

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Witnesses:

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