

A. SHEDLOCK.
Barrel-Holding Clamp.

No. 220,995.

Patented Oct. 28, 1879.

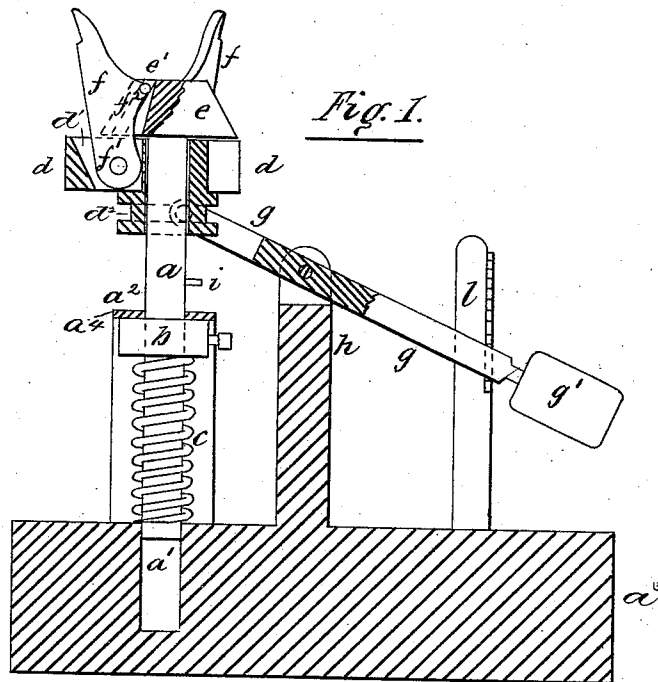
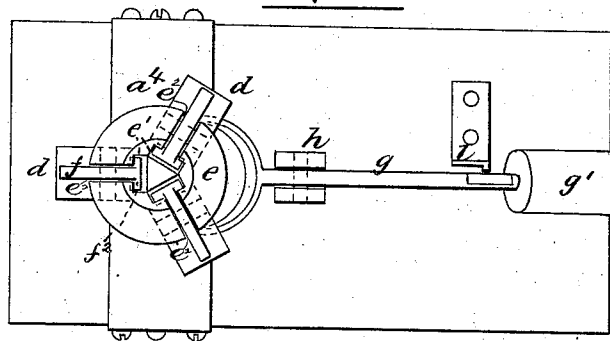


Fig. 2.



Witnesses.

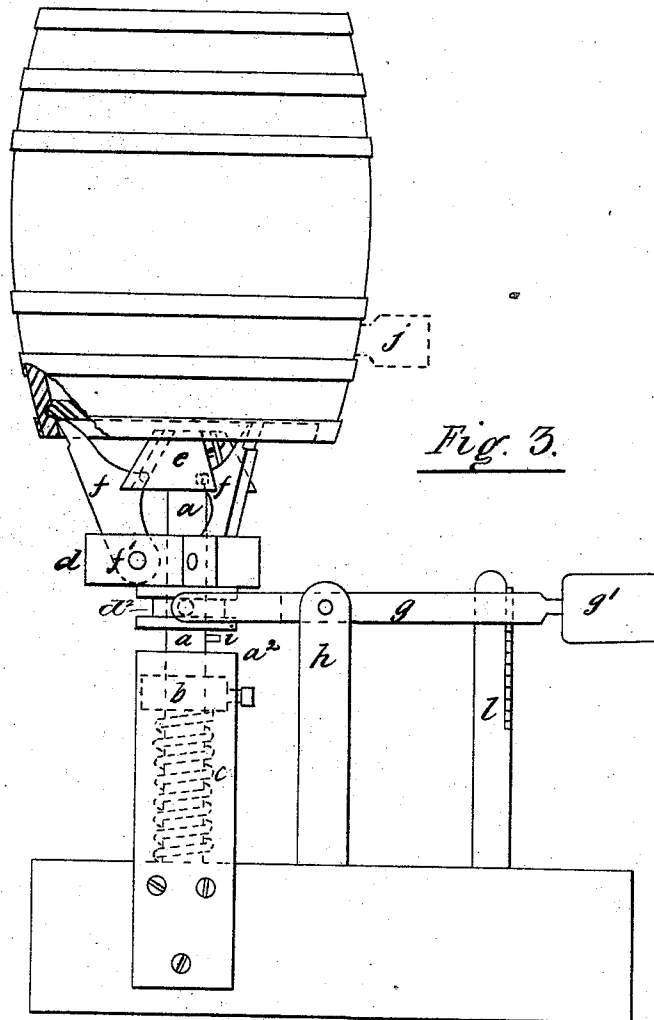
H. D. Williams
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Alfred Shedlock,
Inventor

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UNITED STATES PATENT OFFICE.

ALFRED SHEDLOCK, OF NEW YORK, ASSIGNOR TO CHARLES G. SINGER, OF SAME PLACE, AND JOSIAH H. MACY, OF HARRISON, N. Y.

IMPROVEMENT IN BARREL-HOLDING CLAMPS.

Specification forming part of Letters Patent No. **220,995**, dated October 28, 1879; application filed July 21, 1879.

To all whom it may concern:

Be it known that I, ALFRED SHEDLOCK, of New York, county and State of New York, have invented a certain new and Improved Barrel-Holding Clamp, of which the following is a specification.

This invention relates to that class of devices whose object is to hold barrels and similar articles of varying sizes and bring their axes to a common center, and at the same time allow them to rotate freely on their axes. It is specially designed to be used in conjunction with or to form a part of machines for branding barrels around the staves at their central part or between the hoops.

It consists of three or more fingers or levers pivoted at their lower ends to a frame free to slide on a vertical shaft, and to the upper end of the shaft is secured a conical head which is provided with grooves in which fit studs projecting from the sides of the fingers, so that as the frame is moved up and down on the vertical shaft, the upper ends of the fingers move to and from the central line of the shaft.

The forked end of a lever which is weighted at the other end is connected to the frame by pins on the fork fitting into a circular groove made in the hub of it, so that the normal position of the fingers is when their upper ends are nearest together, they being then embraced in a circle a little less than the inside of the chine of the smallest barrel the device is designed to hold.

The barrel to be operated on is simply placed head-downward on the top of the fingers, when the weight of it carries the frame with the fingers down with it; the grooves in the conical head force the ends of the fingers outward against the inside of the chine and hold the barrel so firmly that it cannot be displaced by the pressure of the brand, &c., bearing against its side.

The vertical shaft and fingers are free to rotate with the barrel, but are held up by a spring which is strong enough to sustain the shaft, &c., and the barrel in their highest position, and the part of the barrel to be branded is brought opposite the brand by raising up the weighted end of the forked lever, thereby compressing the spring and lowering the

barrel, and at the same time causing the ends of the fingers to bear harder against the inside of the chine than they do by the weight of the barrel alone.

By referring to the accompanying drawings, forming part of this specification, and to the following description of the same, a more perfect understanding may be had of the invention.

Figure 1 is a sectional elevation. Fig. 2 is a plan view. Fig. 3 is an elevation with the barrel in position to be operated on.

The vertical shaft *a* is fitted in the bearings *a'* of the frame *a³* and *a²* of the base-plate *a⁴*. On the part of it between these bearings is secured the collar *b*, and surrounding it, between the bottom of the collar and the top of the lower bearing *a'*, is the spiral spring *c*, whose action keeps the top of the collar against the under side of the upper bearing, *a²*. On the part of the shaft *a* projecting above the bearing *a²* is placed the frame or finger-carrier *d*, which fits loosely on the shaft, so as to slide freely thereon; and secured to the top of the shaft is the truncated conical-shaped head *e*. This head is provided with three radial grooves, *e²*, cut equidistant in the sides of it, and in the sides of these radial grooves are formed the grooves *e'*, parallel to the sides of the head *e*.

The frame *d* has three slots, *d'*, formed in it, and corresponding to the radial grooves in the head *e*, and in these slots are placed the lower ends of the three fingers or levers *f*, which are held therein by the pins or bolts *f'*, and on which they are free to move, the slots in the frame *d* being sufficiently long to allow of such movement.

The fingers or levers *f* fit into the radial grooves *e²* in the head *e*, and the studs *f²* on their sides fit into the grooves *e'*, made in the sides of the radial grooves.

The upper ends of the fingers or levers *f*, which project some distance above the top of the head *e* when the frame *d* is in its highest position, are rounded, so as to slide freely against the head of the barrel, and their outer sides are slightly undercut, so as to correspond to the bevel of the chine of the smallest-size barrels, as the fingers or levers are about vertical when holding such barrels.

Around the hub, on the under side of the

frame *d*, is formed the groove *d*², in which the pins or studs on the forked end of the lever *g* fit. This lever is pivoted to the standard *h*, and the free end of it is provided with a weight, *g'*, which is just heavy enough to overbalance the weight of the frame *d* and levers or fingers *f f*, so that when no barrel is being held by the device the fingers or levers *f f* are in their highest position, and their upper ends nearest to the central line, as shown in Figs. 1 and 2.

The pin *i* in the shaft *a* is merely for the purpose of preventing the frame *d* from being moved down low enough to allow the studs or pins on the sides of the fingers or levers *f f* to leave their grooves in the head *e*, should the weighted end of the lever *g* be raised up when no barrel is resting on the tops of the fingers or levers.

When a barrel is placed on the top of the fingers or levers *f f* the weight of it forces them and the frame *d* down and raises the weighted end of the lever *g*. The upper ends of the fingers *f f* expand outward by reason of the pins or studs *f*² *f*² sliding down the incline grooves *e' e'* in the head *e* until they come in contact with the inside of the chine, thus holding the barrel firmly on account of the bevel of the chine, and the larger and heavier the barrel is the firmer it is held while being branded.

The dotted lines *j* represent an end view of the brand, which, as it is moved longitudinally, causes the barrel and holder to rotate as the letters are burned into the sides of the barrel.

To bring the part of the barrel it is desired to brand opposite the brand, the weighted end of the lever *g* is raised upward, thus compressing the spring *c* and causing the fingers or levers *f f* to more firmly hold the barrel, and when the barrel is properly adjusted it is held so by allowing the lever *g* to catch over one of the notches provided for this purpose in bar *l*.

To relieve the barrel, so that it can be removed, all that it is necessary to do is to release the lever *g*, when the barrel may be lifted off the fingers *f f*, and any sized barrel within the capacity of the device is instantly firmly held by simply placing it on the top of the fingers or levers *f f*.

It is obvious that a spring placed under the frame *d* may be substituted for the weighted forked lever *g*, and such substitution I propose to make when it is desired to place the device in a horizontal instead of a vertical position; and where it is not required to adjust the barrel longitudinally, as in some machines, the brand itself may be adjusted to mark the barrel in the right place, the function of the weighted lever being, as before described, two-fold.

This invention is, broadly, for a device for holding barrels, in which levers are forced outward against the chine of the barrel by the weight of the barrel itself when placed on the top of the levers. There being many mechanical equivalents for the incline grooves in the fixed head and pins fitting therein on the levers to cause the upper ends of the levers to be forced outward as they are pressed downward by the weight of the barrel.

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

1. In a device for holding a barrel by the inside of the chine, in combination, the levers or fingers *f f*, frame *d*, shaft *a*, and fixed conical grooved head *e*, constructed and operated substantially in the manner and for the purpose hereinbefore set forth.

2. The combination of the shaft *a*, spring *c*, and expansible device for holding a barrel by its chine, with the lever *g*, whereby the barrel is caused to be firmly held and at the same time longitudinally adjusted, substantially in the manner and for the purpose hereinbefore set forth.

3. In a barrel-holding device, in combination, the fingers or levers *f f*, frame *d*, shaft *a*, conical grooved head *e*, and weighted lever *g*, substantially as hereinbefore set forth.

4. The combination of the fingers or levers *f f*, frame *d*, shaft *a*, conical head *e*, and lever *g* with the spring *c*, substantially as and for the purpose hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 17th day of July, 1879.

ALFRED SHEDLOCK.

Witnesses:

H. D. WILLIAMS,
F. W. GRIFFITH.