(No Model.)

A. W. OPPMANN & J. SMITH.

BRANDING APPARATUS.

No. 336,343. Patented Feb. 16, 1886.

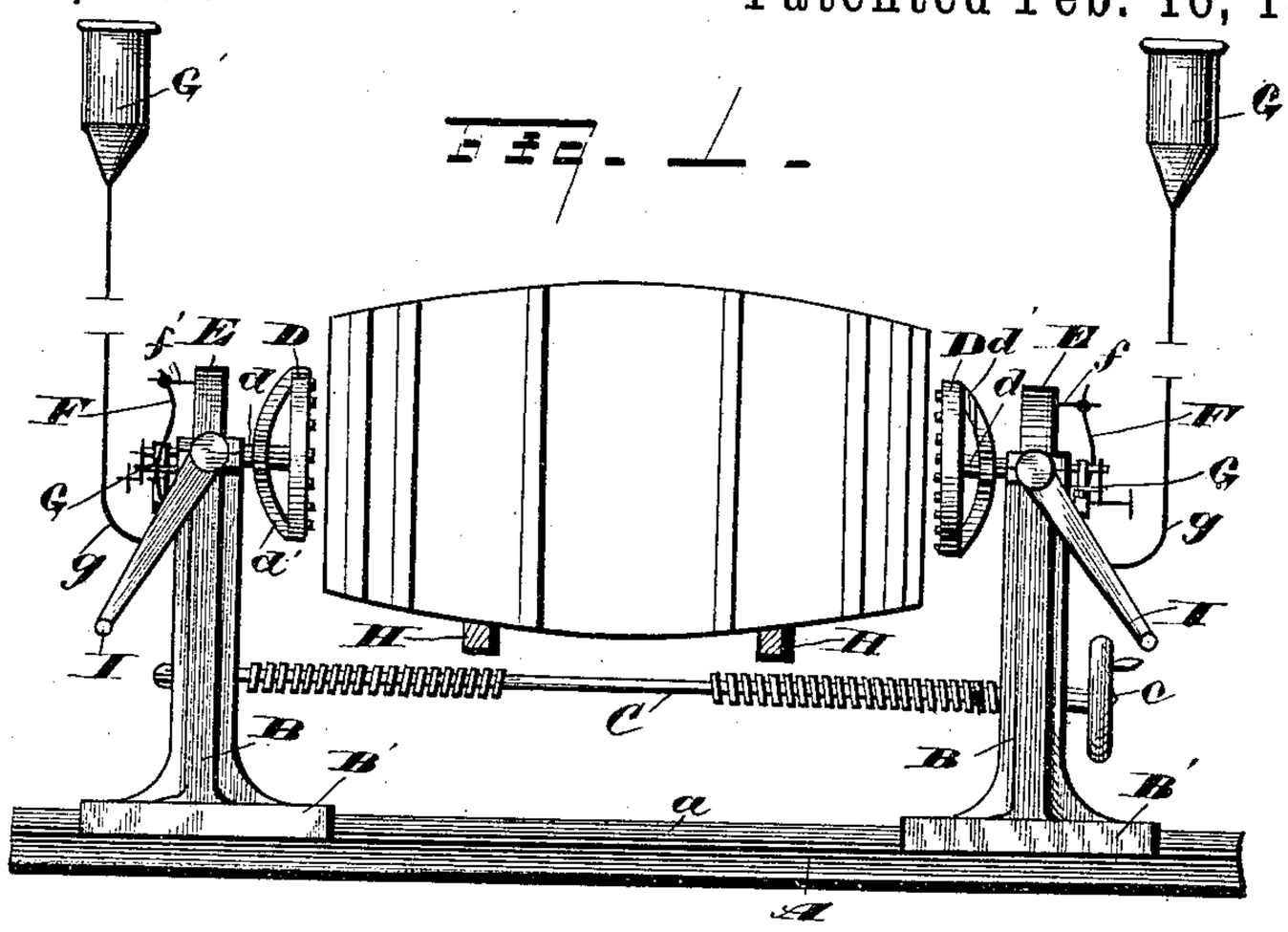

Fig. 1.

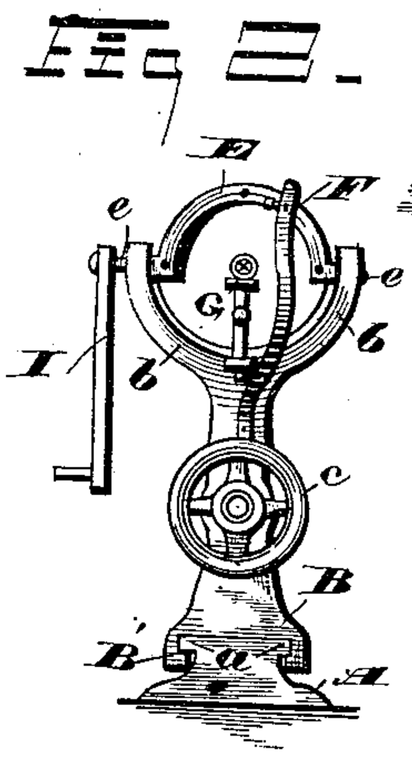

Fig. 2.

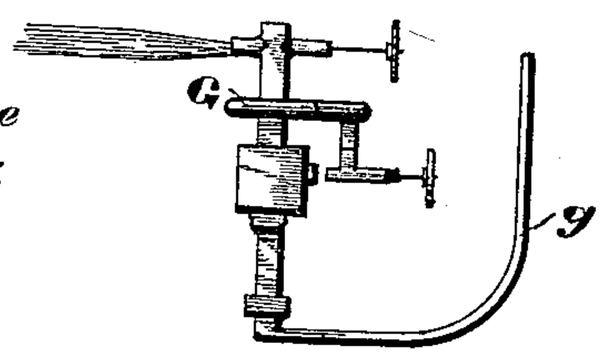

Fig. 3.

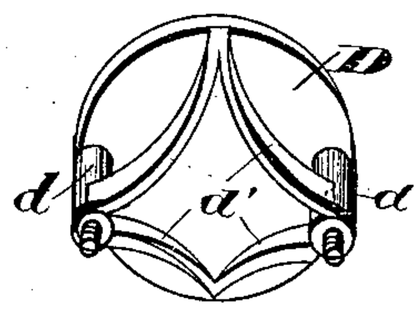

Fig. 4.

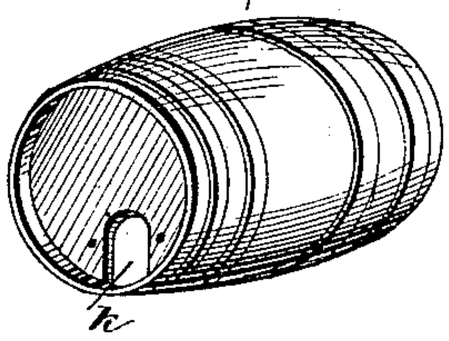

Fig. 5.

WITNESSES

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UNITED STATES PATENT OFFICE.

ANDREW W. OPPMANN AND JOSEPH SMITH, OF CLEVELAND, OHIO; SAID SMITH ASSIGNOR TO BOSWORTH & SCHMIDT, SAME PLACE.

BRANDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 336,343, dated February 16, 1886.

Application filed February 24, 1885. Serial No. 156,911. (No model.)

To all whom it may concern:

Be it known that we, ANDREW WM. OPPMANN and JOSEPH SMITH, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Branding Apparatus; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

Our invention relates to improvements in branding apparatus; and it consists in certain features of construction and in combination of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view in elevation of a branding apparatus embodying our invention. Fig. 2 is an end elevation of the same. Fig. 3 is a side elevation of a vapor-burner suitable for heating the branding-irons. Fig. 4 is a view in perspective of a branding-iron and attachments. Fig. 5 is a view in perspective, reduced in size, of a hogshead or storing-tub, showing the opening at the end for pitching the tub inside.

A represents a bed-plate with laterally-projecting ways *a* along the sides.

B are standards with long bases B′, that hook over the ways *a* and slide thereon.

C is a screw-rod with right and left handed screw-threads on the respective ends. This rod passes through suitable nuts in the respective standards, and is provided on one end with a hand-wheel, *c*, or crank for revolving the rod, and by this arrangement of parts by revolving the screw-rod the standards are made to simultaneously move toward or from each other.

D are branding-irons connected with the respective standards, and arranged facing each other. The branding-irons have lugs *d* and braces *d′* integral therewith that connect with the branding-irons at or near the edges, leaving the central portion of the branding-irons unobstructed and entirely exposed. The lugs *d* are bolted to a yoke, E, that curves upward in the central part, so that it is above and does not cover the central portion of the branding-iron. The yoke E has trunnions *e* at the ends, that are journaled in suitable boxes in the arms *b* of the standards. As the branding-iron is some three or four inches (more or less) away from the axis of the yoke, a spring, F, is secured to the standard, and the free end is connected by a screw-rod, *f*, with the upper portion of the yoke or branding-iron, as may be preferred, and the rod *f* is screwed up to give the spring F sufficient tension to hold the branding-iron in position with its face approximately vertical.

G are vapor burners of the ordinary construction, supported from the respective standards, and arranged so that the flames will impinge the rear of the branding-irons in the central part. Supply-pipes *g* lead from the burners to the containers G′, and these should be located several feet (say ten or twelve feet, more or less) above the burners, to give the necessary pressure to project the flames a considerable distance, in which case the burners may be distant as aforesaid from the branding-iron, and the flames, by thus passing some distance through the air, will gather in more air to commingle with the flames and aid the combustion, and this lessens the amount of burning-fluid required.

The vapor-burners if properly arranged will soon heat the branding-irons to a dull-red heat, suitable for branding, and by controlling the discharge of gases the branding-iron is kept at a uniform heat, as required. The standards are separated a sufficient distance to receive the articles to be branded.

In Fig. 1 a large cask is shown in position on the skids H for branding. Of course, the skids and standards are arranged to accommodate the package to be branded, after which a package is placed in position, and by turning the crank or hand-wheel *c* in one direction the branding-irons are simultaneously pressed upon the opposite ends of the package and the branding is done in a moment. A reverse movement of the crank separates the branding-irons, so that the package can be removed or replaced by another. As the branding-irons are pressed against the ends of the package, the spring F allows the branding-iron to turn, if necessary, to adapt itself to the surface of the package, the ends of which are not always parallel with each other or even.

Hand-levers I may be attached to the yokes or to the trunnions thereof by means of which, if necessary, one side of the branding-iron may be pressed with more force against the package, as in case of a knot that would not easily be branded.

When the apparatus has been adjusted for a package of given size, the branding can be done with great dispatch, and it requires but a moment to adjust it for different-sized packages.

This apparatus is adapted to perform other important work, to wit: The large casks in breweries that store the beer by long use become foul, and it is necessary at least once in a year to melt the pitch on the inside, thereby purifying it, and to add new pitch and recoat the inner surface. In Fig. 5 such a cask is shown having an opening, K, of considerable size in one end. For treating such casks, if they are of such size that they will not enter between the standards, one of the latter is removed, together with the screw-rod and the branding-iron, from the remaining standard. The cask may then be placed in position, so that the flame from the remaining burner will enter the orifice K. The heat from the burner soon melts the pitch, the melting of course purifying it, after which more pitch is added and melted. The cask is then removed and rolled in the usual manner to distribute the pitch while it is cooling. This apparatus for this purpose will be found a great improvement over the devices commonly used.

It is found that a burning-fluid composed of about ninety-seven per cent. of gasoline with three per cent. of liquid ammonia gives an intense heat, and is recommended both for heating the branding-irons and for repitching casks.

For smaller cheaper machines, one of the standards may be made stationary and the other standard operated by a lever, and for light work will answer a very good purpose, although the operator will have to push the package against the stationary branding-iron and remove it therefrom, or otherwise the movable iron, having to push the package, would brand too deep, and the package, if not removed from the stationary iron immediately after the branding, would burn the brand out of shape and spoil it.

What we claim is—

1. In a branding-machine, the combination, with movable standards and mechanism for operating the same simultaneously to or from each other, of branding-irons pivotally attached to the standards, and springs arranged to yieldingly support the branding-irons in position presenting their faces toward the package, and vapor-burners arranged to move with the branding-irons and heat the same, substantially as set forth.

2. In a branding-machine, the combination, with the bed-plate, standards, and screw-rods arranged and operated as described, of branding-irons pivoted to the standards, vapor-burners for heating the branding-irons, a spring and lever for presenting the face of the branding-iron toward the package and distributing the pressure as may be required, substantially as set forth.

In testimony whereof we sign this specification, in the presence of two witnesses, this 18th day of February, 1885.

ANDREW WM. OPPMANN.
JOSEPH SMITH.

Witnesses:
L. L. LEGGETT,
ALBERT E. LYNCH.