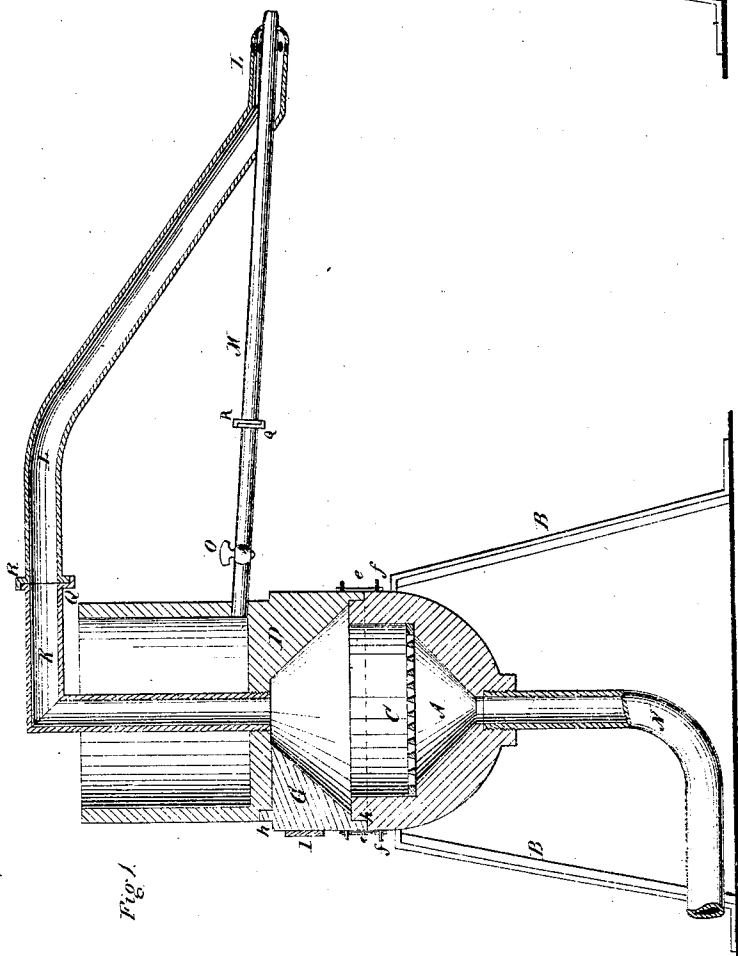
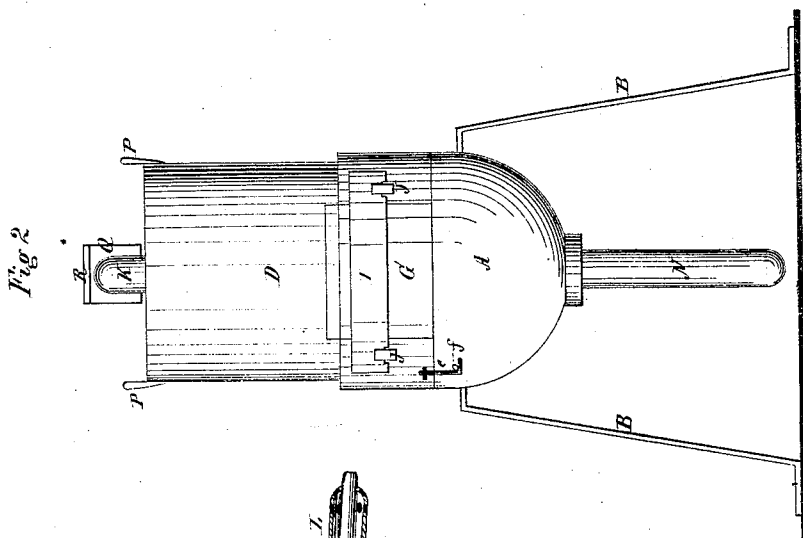


*J. W. Brady,*

*Fitching Barrels.*

*No. 110,193.*

*Patented Dec. 20, 1870.*



*Witnesses:*  
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# United States Patent Office.

JAMES W. BRADY, OF BALTIMORE, MARYLAND.

Letters Patent No. 110,193, dated December 20, 1870.

## IMPROVEMENT IN APPARATUS FOR PITCHING 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, JAMES W. BRADY, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Apparatus for Pitching Barrels; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a sectional elevation of my improved apparatus, and.

Figure 2, a front elevation of the same.

Similar letters of reference indicate corresponding parts in the several figures of the drawing.

The means adopted by brewers and others for pitching beer-casks, barrels, &c., consist, essentially, in placing a quantity of pitch within the barrel, and subjecting the same, together with the interior of the barrel, to such a degree of heat as will liquefy the pitch, and cause it to enter the pores of the heated staves.

The liquefaction and distribution of the pitch was first accomplished by heated irons; but, as this method is laborious and slow, certain improvements were devised by which the barrels were heated, and the pitch liquefied and distributed by the action of a hot blast thrown into the barrels containing the pitch.

These improvements are a great advance upon the first crude method of employing heated irons, but are objectionable in one respect, viz., the necessity of placing the pitch in the barrels by hand before the application of the hot blast. To avoid this difficulty is the principal object of my invention; and to this end—

It consists, primarily, in forcing melted pitch into barrels, casks, &c., by the action of a hot blast, both entering the barrels together.

It consists, secondly, in the construction and combination of devices by which this result is attained.

In the drawing—

A is an upright furnace, composed of metal, or other suitable material, mounted upon legs, B, and provided with a grate, C, and cover, D.

The upper portion of the cover is constructed in the form of a kettle, and its under surface forms the top or crown of the fire-pot. It is adapted to fit upon the furnace by a rebated joint, to prevent lateral displacement, and is secured in place by means of hooks, e, engaging with pins or staples, f, affixed to or cast upon the sides of the furnace, as shown.

The entrance to the furnace is effected through a door, G, in the lower portion of the cover D, the inner surface of such door being inclined to correspond with the under surface of the cover.

The door is also constructed with flanges, h, let into corresponding recesses in the outer surface of the cover, to form a tight joint, and is held in place by a curved bar, I, notched in its lower edge near each end, to fit over hooks, J, affixed to the cover upon each side of the door.

K is a pipe communicating directly with the furnace through the cover D, and passing vertically through the kettle to the outside of the cover. This pipe is attached to or forms a part of the perforated nozzle L, and through it the hot blast is driven from the furnace into the barrel to be pitched, the nozzle being inserted in the bung-hole of the latter.

M is a pipe entering the kettle through the side of the latter, and connected at its opposite end with the nozzle L, through which it passes longitudinally, terminating at or near the end of the same.

N is another pipe, connected to a suitable blower, and entering the bottom of the furnace under the grate, as shown.

The operation is as follows:

A fire having been started in the furnace, a quantity of pitch is placed in the kettle, where it is rapidly melted, and the nozzle L inserted in the bung-hole of a barrel.

The blower, attached to the end of the pipe N, is then put in motion, and the cock O in the pipe N turned, to allow the melted pitch to flow freely to the nozzle, the quantity of such flow being, of course, regulated by the cock.

The action of the blower drives a hot blast from the furnace, through the pipe K and nozzle L, into the barrel, which blast encounters the melted pitch as the latter escapes from the pipe N and scatters it uniformly over the interior of the barrel.

The hot blast from the nozzle, in addition to distributing the pitch, heats the inner surface of the barrel, and prepares the latter to receive the proper coating of pitch.

If desired, the discharge end of the pipe N may terminate in the nozzle, so that the melted pitch shall be forced into the barrel with the hot blast, through the perforations in the nozzle.

The cover D may be lifted off the furnace by means of a derrick, being provided with ears, P, to receive the derrick-chains or ropes.

The nozzle L is connected to the pipe K in the following manner:

Upon the end of the pipe K is firmly secured a plate, Q, having beveled flanges upon its side and bottom edges; and upon the proximate end of the nozzle L is a plate, R, having its side edges beveled to correspond with the bevel of the flanges upon the plate Q, and with a straight flange across its top.

The two are united by slipping the plate R between the flanges of the plate Q, the top flange of the former resting upon the upper edge of the latter, as shown in fig. 1.

This construction forms a perfectly tight joint, and, at the same time, permits the ready separation of the pipe and nozzle.

A similar joint is provided in the pipe M, so that the outer end of the same can be removed with the nozzle from the pitch-kettle.

If preferred, the pipe K and nozzle may be made in one piece, as also the pipe M, and attached to the kettle in any convenient manner, the object being to effect their connection without regard to the precise means employed.

Having thus described my invention,

What I claim as new is—

1. An apparatus by which melted pitch is injected into barrels, casks, &c., to pitch the interior of the same, substantially as described.

2. An apparatus by which melted pitch, combined with a hot blast, is injected into barrels, casks, &c.,

to pitch the interior of the same, substantially as described.

3. In an apparatus for pitching barrels, casks, &c., a furnace having its cover constructed to form the pitch-kettle, substantially as described, for the purpose specified.

4. In combination with the furnace and kettle, the pitch-pipe M and the hot blast-pipe and nozzle, substantially as described, for the purpose specified.

5. In combination with the hot blast-nozzle L, the pitch-pipe M, substantially as described, for the purpose specified.

6. The flanged plates Q R, constructed as described, to connect the sections of pipe, substantially as set forth, for the purpose specified.

7. The door G, constructed as described, and applied to the furnace and its cover, in the manner set forth, for the purpose specified.

J. W. BRADY.

Witnesses:

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