

2 Sheets—Sheet 1.

No. 529,310.

Patented Nov. 13, 1894.

Inventor
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(No Model.)

2 Sheets—Sheet 2.

T. J. REINHARD.
CASK PITCHING APPARATUS.

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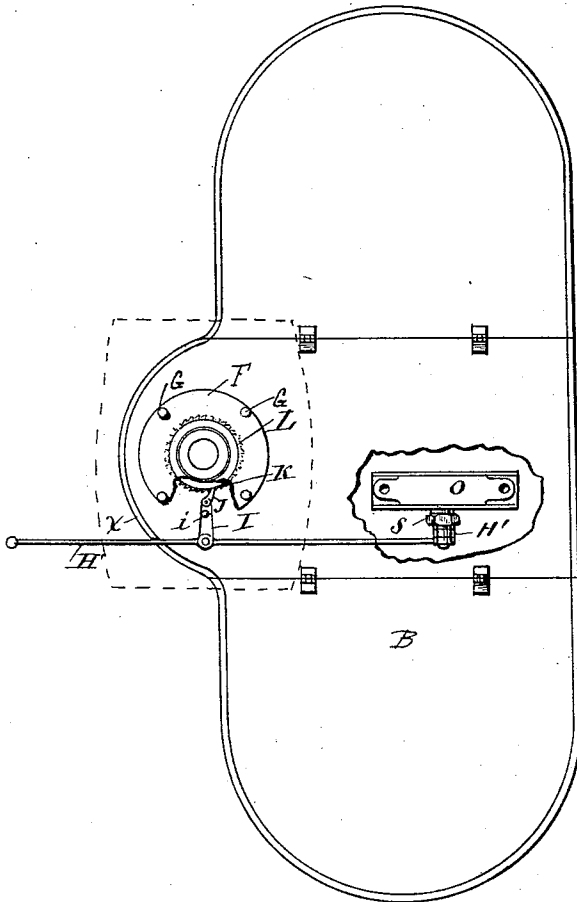


Fig. 3

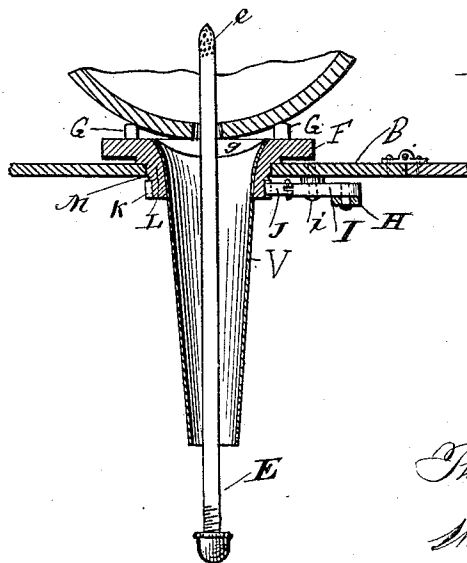


Fig. 5.

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UNITED STATES PATENT OFFICE.

THOMAS J. REINHARD, OF CLEVELAND, OHIO, ASSIGNOR TO PHILIP SHERRER
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CASK-PITCHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 529,310, dated November 13, 1894.

Application filed February 16, 1894. Serial No. 500,403. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. REINHARD, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, State of Ohio, have invented certain new and useful Improvements in Pitching Devices, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which the invention appertains to make and use the same.

My invention relates to improvements in means for coating the inner surface of beer barrels with an adhesive lining such as pitch, rosin, or glue, and its objects are to spray the lining in a heated and liquefied state evenly and quickly over the inner surface of the barrel, and to retain the surplus for future use.

My invention consists in the heating kettle and operating pump, with the barrel supporting and rotating mechanism, and spraying nozzle, and with the details of construction and combination and arrangement of parts as hereinafter described, shown in the accompanying drawings, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of the pump and barrel support, showing pipe connections. Fig. 2 is a rear elevation of the same. Fig. 3 is a plan view of the device a portion being broken away to show ratchet. Fig. 4 is a vertical central section of the pump. Fig. 5 is a vertical central section of the barrel support somewhat enlarged.

In the drawings A is the kettle filled nearly full of hot liquid material. B is a metal plate resting thereon and adapted to support the pump and barrel.

C is the inlet to the pump which is protected by the strainer D secured thereto.

E is the outlet pipe which is turned first downwardly so as to be constantly immersed within the hot liquid, and then vertically up through the barrel support F, where it terminates in the tip *e*, perforated on all sides and in its extremity in order to spray the liquid in all directions. The support F is provided with raised pins or lugs G upon which the barrel rests squarely and without vibration and is hollowed out at *g* to receive the drainage of

surplus liquid from the barrel and convey it back to the kettle while still hot. V is a funnel which received this surplus.

As seen in the figures the barrel is laid on its side resting upon the pins G with the spraying nozzle projecting through the bung hole in position to cover the whole interior of the barrel.

In order to cover equally all parts of the interior of the barrel effectively it should be rotated while the pump is in action for the purpose of distributing the pitch equally, which prevents the pitch from running down or collecting too much at any one point,—as it would do if the barrel were quiet, during the spraying,—as when it hardens it remains where sprayed. To accomplish this result the operating rod H is connected with the pump lever H' and also with the lever I pivoted upon the metal plate B at *i* and adapted to operate the spring pawl J which engages the ratchet K on the lower edge of the sleeve L, which has its bearing in the opening M in the plate B, and is integral with or secured to the support F which rotates with it, as the lever is worked.

The form of pump shown is oscillating, the valves being so arranged that while one side is receiving fluid the other will be discharging. This pump is constructed as follows: O is the casing. P is a segmental chamber secured in the lower part of the casing and sufficiently solid at the lower part to receive the inlet pipe C. *p, p*, are valves on the outer side of the inclosure for egress only.

R is a free segmental piston oscillating on the central pivot at *r*, which is the lower shaft which operates the pump. A stuffing box S is added to prevent leakage. The valves of the segment R are situated on the interior of its radial walls and permit ingress to the outlet pipe whose opening is at E'.

Holding bolts T pass through the steel plate and flanges *t, t*, and secure the pump from vibration.

As shown in the figures the kettle is provided with a side extension *x* to receive the barrel support and funnel, and the covering plate is preferably made in sections and hinged for access to all parts of the kettle.

The funnel V extends from the barrel sup-

port into the hot fluid in the kettle and serves to drain off the surplus as it runs from the barrel.

The advantages of this device are obvious in its adaptation to the use of barrel linings which are only fluid at a considerable degree of heat, since the quick operation of the parts and semi-immersion of the fluid passages in the heated fluid in the kettle serve to retain the fluid therein constantly in condition for spraying.

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

1. In a device for coating the inner surface of barrels, the combination with a kettle, of a cover therefor, a pump, inlet and outlet pipes therefor, a rotary barrel support mounted upon said cover, and below the extremity of the outlet pipe, and means of operating the pump and rotating the barrel support in unison, substantially as set forth.

2. In a device for coating the interior of barrels, the combination with a heating kettle, of a metallic cover therefor, an oscillating pump mounted upon the cover within the kettle, inlet and outlet pipes for the pumps, located within the kettle, the said outlet pipe

being bent to descend into the kettle and discharging vertically with a terminal spray nozzle, and a rotary barrel support upon said cover encircling said nozzle, all parts being arranged substantially as and for the purpose set forth.

3. In a device for coating the interior of barrels, the combination with a heating kettle, of a metallic cover therefor, an oscillating pump and a rotary barrel support mounted thereon, an inlet pipe to the pump provided with a strainer, an outlet pipe bent downwardly into the kettle and terminating upwardly through the barrel support, a funnel extending into the kettle through the barrel support, and means for rotating the barrel support and for oscillating the pump piston consisting in a crank lever on the segmental piston shaft, a pawl and actuating lever pivoted upon the plate, a ratchet upon the cylindrical base of the barrel support, and an operating bar pivotally secured to both said levers, substantially as described.

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Witnesses:

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