H. TORCHIANI.

BARREL PITCHING MACHINE.

APPLICATION FILED JUNE 21, 1912.

1,126,130. Patented Jan. 26, 1915.

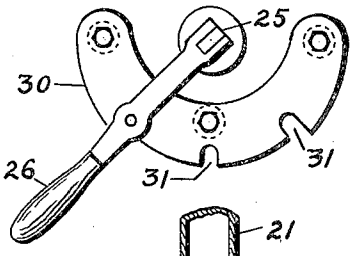

Fig. 2.

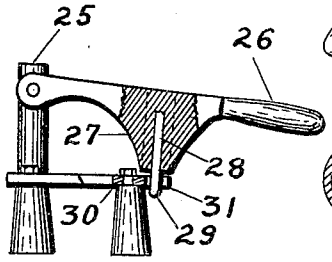

Fig. 3.

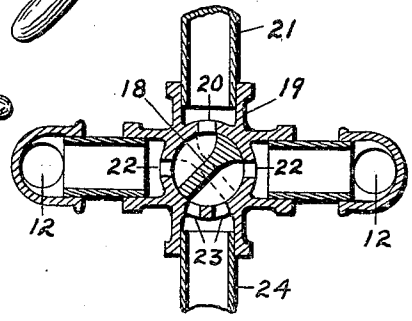

Fig. 4.

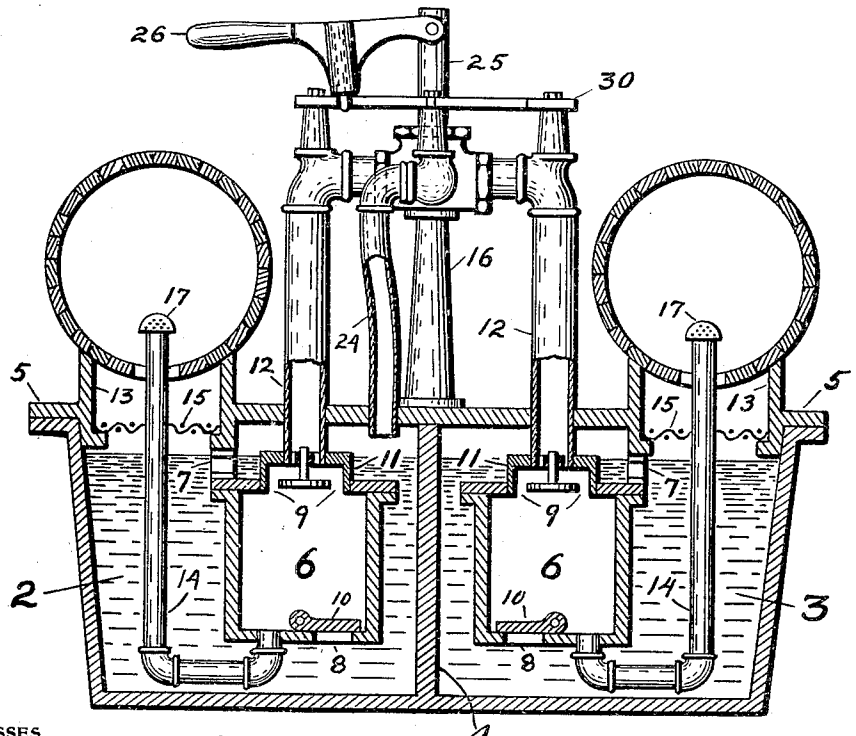

Fig. 1.

WITNESSES

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BARREL-PITCHING MACHINE.

1,126,130. Specification of Letters Patent. Patented Jan. 26, 1915.

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To all whom it may concern:

Be it known that I, HARRY TORCHIANI, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Barrel-Pitching Machines, of which the following is a specification.

This invention relates to improvements in machines for pitching barrels and similar packages.

An object of the invention is to simplify the construction of machines of that general type which is described in Letters Patent of June 27, 1899, No. 627,781, granted to William L. Miller, and in Letters Patent No. 617,185, of January 3, 1899, granted to E. Rau.

Another object of the invention is, to provide a machine of this type which may serve for injecting primarily a cleaning solution into the package, to dissolve and remove the old coating of pitch on the walls of the package; and for injecting secondarily a liquid mass, as for instance, pitch, adapted to be applied as a new coating to the walls of the package.

Another object of the invention is, to provide a machine of this type wherein the injection is effected by means of compressed air or some other pressure fluid, similar to the constructions disclosed in above-mentioned Letters Patent, and wherein a valve is provided which may be locked in any of its operative positions or in inoperative position.

Another object of the invention is, to provide means for accelerating the inflow of coating liquid from the pitch kettle into one or more tanks from which it is to be discharged into the package.

With the above and other objects in view the invention consists in the novel provision and combination of parts as hereinafter described, shown in the drawing and pointed out in the claims.

In the drawing: Figure 1 is a vertical section through the machine, some of the parts being shown in elevation. Fig. 2 is a top plan view of the controlling valve mechanism on a somewhat larger scale; Fig. 3 is a side elevation thereof, and Fig. 4 is a horizontal section through the valve.

The machine comprises a kettle 1, preferably built into a furnace (not shown), and heated thereby. The kettle is divided into a plurality of compartments 2 and 3, by a partition wall 4, extending substantially in vertical direction from the bottom to the cover plate 5 for the kettle. Each of the compartments contains a tank 6 suspended by straps 7 and provided with a port 8 for the liquid and a port 9 for the pressure fluid. The port 8 is controlled by a valve 10, adapted to admit liquid into the tank under predetermined conditions of pressure and to prevent discharge of the liquid into the kettle. The inlet port 9 for the pressure fluid may also be protected by a guard device 11, similar to the guard device shown in U. S. Patent 627,781, and adapted to prevent the liquid within the tank from rising into the pressure fluid pipe 12. From the bottom of each tank an injector pipe 14, extends to a seat 13 for the package and terminates in a nozzle 17 above the seat. The seat preferably is covered by a screen 15 or such like, to let the liquid which does not adhere to the walls of the package, drip back into the respective compartment of the kettle.

A standard 16 on the cover plate 5 or in some other suitable location serves as a support for the controlling valve. The latter comprises a valve member 18 rotatable within a casing 19, which is provided with a port 20, communicating with the pressure fluid supply pipe 21, ports 22 each in communication with a pipe 12, opening into a guard device 11 of a tank, and outlet ports 23. The general construction of this valve mechanism resembles the valve structure shown in the abovementioned Patent 627,781. It is obvious that in the position shown in Fig. 4, in full lines pressure fluid may be supplied from pipe 21 to the pipe 12 which terminates in the tank of compartment 2. If the valve is turned 90 degrees the pressure fluid will be supplied to the pipe 12, which leads into the tank of compartment 3. In the intermediary position of the valve the pipes 12 are in communication with the outlet ports 23 from which pipe 24 extends into the kettle 1, terminating above the level of the liquid contained therein. The stem 25 of the valve plug projects beyond the casing and pivotally mounted thereon, so as to be oscillatable in planes vertical to the plane of the rotation of the plug, is a handle 26. A heavy bracket 27 on the lower side of the handle has a socket 28 for the pin 29, which extends downwardly from the

handle. An arcuate plate 30 is rigidly secured to the upper closed ends of the pipes 12 and 25, or is in some other suitable way maintained stationary with respect to the casing. The pin 29 is adapted to enter any of the notches 31 in the plate 30 and to lock thereby the handle 26 and the valve in adjusted position. The weight of the bracket serves to swing the handle downwardly, so as to insert the pin 29 in the notch, when the valve is in proper position.

The operation is as follows: One of the compartments may be filled with a liquid adapted to heat and to liquefy the old coating of pitch, which should be removed before a new coating is applied. A suitable liquid for this purpose is for instance, a mixture of liquid pitch and oil, and an oil feeder (not shown) may be in communication with the respective compartment. The package is placed on the seat 13, so that the nozzle 17 projects into the interior of the package. The liquid in the tank will then be pressed out through the pipe 14 when the valve is turned into a position in which pressure fluid is admitted into the tank. When the valve is turned into position in which communication is established between the pipe 12 and pipe 25, the liquid in the kettle will enter the tank through valve 10, and this movement is accelerated as the pressure fluid from the tank now enters through pipes 12 and 25 above the level of the liquid in the kettle. The same operation may be repeated after the package has been placed on the seat which is above the compartment containing new pitch and a new coating may be applied thereby. The valve is automatically locked by gravity in each of its operative positions, as the pin drops into the notches of the locking plate.

Without limiting myself to the details of construction, which may be varied within the scope of the invention, I claim:

1. In a barrel pitching machine the combination of a kettle, containing liquid, a receptacle in said kettle, in intermittent communication therewith, a pressure fluid pipe opening into the receptacle, a valve controlling the fluid supply to the pipe, another pipe opening above the level of the liquid, said valve being adapted to establish communication between said pipes.

2. In a barrel pitching machine the combination of a kettle containing liquefied pitch, a receptacle in said kettle in intermittent communication therewith, means for admitting a pressure fluid into said receptacle, and means for admitting pressure fluid from said receptacle above the level of the pitch.

3. In a barrel pitching machine the combination of a kettle containing liquefied pitch, a receptacle in said kettle in intermittent communication therewith, means for admitting alternately a pressure fluid into said receptacle, and for admitting pressure fluid from the receptacle above the level of the pitch.

Signed at Chicago, county of Cook, State of Illinois, this 17th day of June 1912.

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Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."