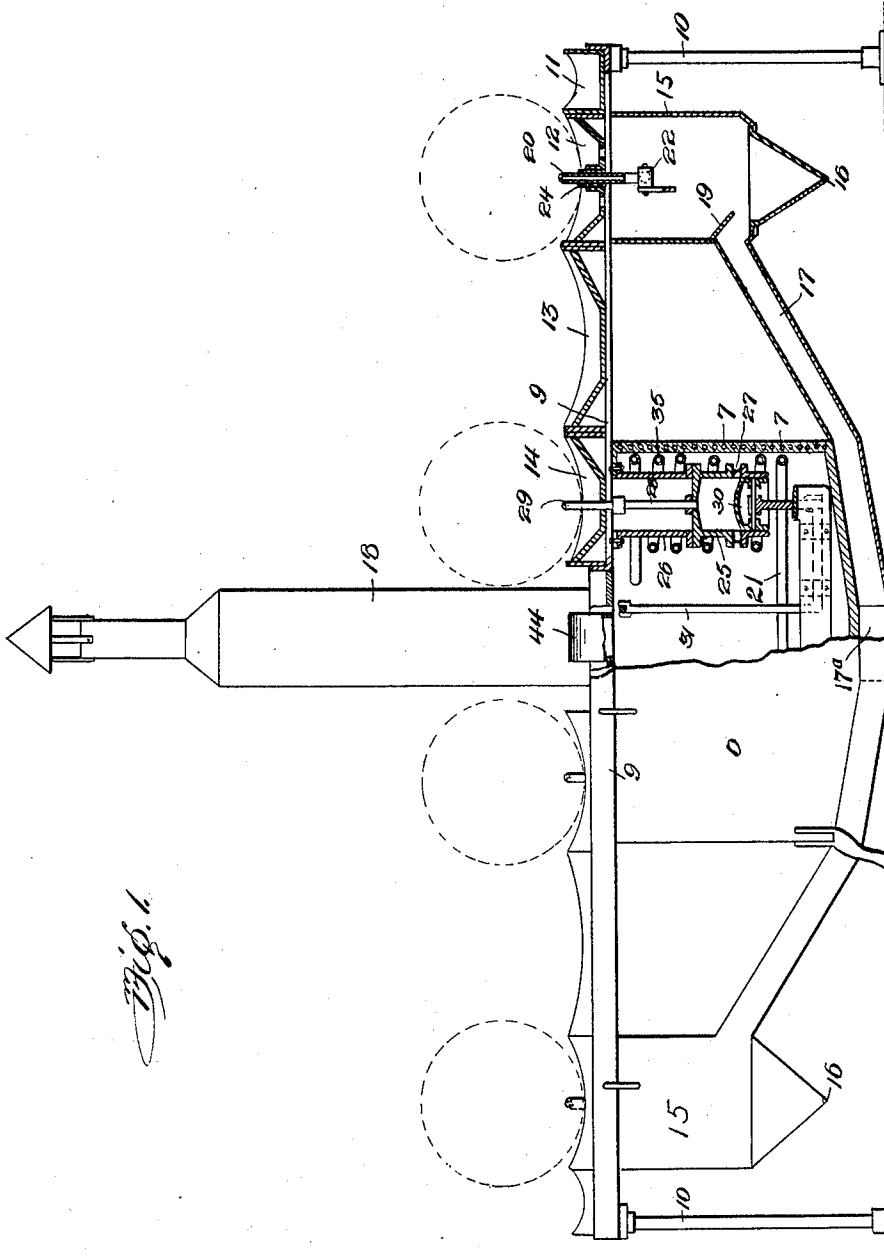


H. WAIBEL.
CLEANSING AND PITCHING MACHINE.
APPLICATION FILED JUNE 8, 1910.

1,003,076.

Patented Sept. 12, 1911.

2 SHEETS—SHEET 1.



Inventor

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Edith Smith

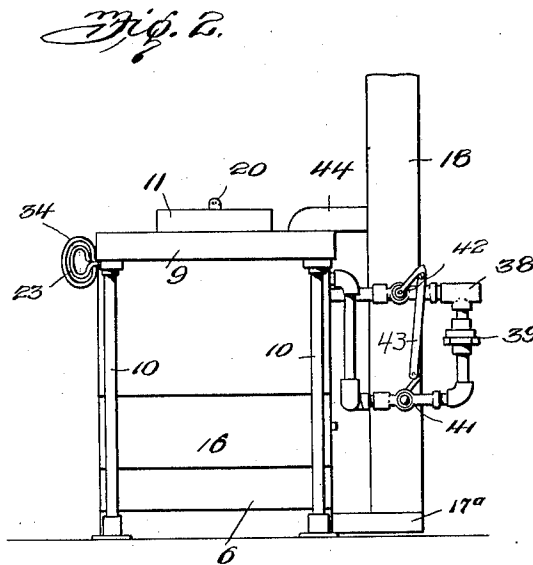
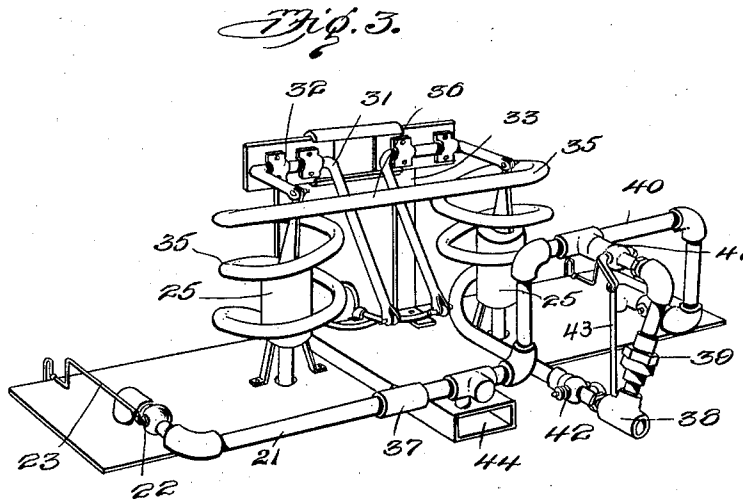
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CLEANSING AND PITCHING MACHINE.
APPLICATION FILED JUNE 6, 1910.

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Patented Sept. 12, 1911.

2 SHEETS-SHEET 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY WAIBEL, OF CLEVELAND, OHIO.

CLEANSING AND PITCHING MACHINE.

1,003,076.

Specification of Letters Patent.

Patented Sept. 12, 1911.

Application filed June 6, 1910. Serial No. 565,239.

To all whom it may concern:

Be it known that I, HENRY WAIBEL, citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Cleansing and Pitching Machines, of which the following is a specification.

This invention is a combined cleansing and pitching machine, particularly adapted and intended for use in cleaning and pitching the interior of beer barrels and the like, and has as its object to provide an improved and convenient apparatus in which the cleaning and pitching operations may be consecutively performed on the same frame or structure.

A further object of the invention is to provide means for utilizing the exhaust steam from the cleansing devices for the purpose of heating the pitch preparatory to spraying the same into the barrels or kegs.

A further object of the invention is to provide improved means for spraying the pitch from a tank into the barrels or the kegs.

A further object of the invention is to provide an improved machine of general construction, for the purpose indicated, as will more fully appear from the follownig description.

In the accompanying drawings—Figure 1 is a side elevation, partly in vertical longitudinal section of the machine. Fig. 2 is a perspective view thereof, showing one end and the rear side. Fig. 3 is a perspective view of the interior parts and pipe connections, removed from the casing, and inverted, in order to show the parts more clearly.

As illustrated, the machine is constructed with a central pitch tank with rests or seats for two barrels or kegs, and at each end of the pitch tank are keg rests and steam cleaning devices, so that a number of barrels can be operated on at the same time, at separate ends of the machine.

Referring specifically to the drawings, 6 indicates a pitch tank, preferably cast of metal, and provided in its wall with a coil 7, cast therein, which may receive steam from

any suitable source for the purpose of heating the pitch in the tank. A frame or cover 9 extends over the tank and rests thereon and projects at its opposite ends beyond the ends of the tank, and is supported at its extremities by standards 10. At each end of the machine this frame or top plate is provided with a series of keg rests. The outer one indicated at 11 is for an idle keg. Next to this is a rest 12 to hold the keg while steaming. Next to this is a rest 13 for an idle keg between the steaming and pitching rests, and next to this, and located above the end of the pitch tank, is a rest 14 for a keg while being pitched. This construction permits kegs to be lifted to the rest 11 and then rolled over to the steaming rest 12, then rolled to the rest 13 and then to the rest 14, for pitching, so that after the keg is cleaned at the steaming rest it can be rolled to the pitching rest from which it is removed after that operation, and a succession of kegs can be kept going from each end of the machine and there conveniently operated by one man without lifting the kegs and carrying the same from one machine to another.

Under each steaming rest 12 the top frame supports a metal fume box 15, the bottom of which is hopper shaped and has a vent 16 for the escape of waste pitch. From the bottom of this box a conduit 17 extends to the stack 18 for carrying off the waste steam and fumes, a trap 19 being placed at the entrance to the conduit to prevent pitch and other liquids from entering the conduit. The conduit extends under the bottom of the pitch tank 6, and thus the exhaust steam serves to heat the same, the conduit being connected to the stack by a flue 17^a at the back.

The steaming nozzle is indicated at 20, at the end of a pipe 21 leading thereto, and the steam spray is controlled by a valve 22 operated by a handle 23 extending out through the front of the box, for convenient manipulation. The nozzle is surrounded by an asbestos jacket 24 to protect the bung bushing of the keg or barrel from expansion or overheating. The top frame 9 also supports the pitch pumps 25, by means of hangers 26, under the pitching rests 14. Each pump is

of the valveless pressure type, and fills automatically through inlets 27 protected by wire gauze, and having an outlet pipe 28 extending upwardly to the pitching nozzle in the rest 14.

The pump piston 30 is connected to one arm of a crank 31 pivoted at 32 to a bracket 33 depending from the top frame, the long arm of the crank being connected to a handle 34 which, when pulled, turns the crank and forces the piston upwardly into the cylinder, thereby ejecting the molten pitch through the jet openings in the pitching nozzle and into the keg, and when the handle is pushed in the piston descends and by suction withdraws the pitch from the nozzle, which is advantageous as it prevents cooling and coagulation of the pitch at the nozzle, which would otherwise clog the same. When the piston descends to full extent the pitch flows into the pump barrel, from the tank, to the height of the pitch in the tank. As shown particularly in Fig. 3 each pump barrel is surrounded by a coil 35 of pipe, the coils being connected across to each other by a pipe 36, and connected at one end by a union 37 to the pipe 21 and at the other end to the steam inlet 38 which is also connected by a pipe 39 to the pipe 40 which forms a continuation of the pipe 21 and which leads to the other steaming nozzle. The pipe 39 is provided with a valve 41, and a valve 42 is placed in the connection from the inlet to the coils 35, and the stems of these valves are connected together by a rod 43, and so constructed that the cocks may be set in a position to allow steam to travel through the coils 35 and thence to the pipes 21 and 40 leading to the steaming nozzles; or, directed mainly to the steaming nozzles with a smaller part passing into the coils 35; this adjustment being provided to permit greater or less heating of the pitch according to the condition of the work, so that the full pressure of the steam may be maintained in the steaming nozzles, whether there is steam in the coils 35 or not. The coils 35 form additional heating means for the pitch, and inasmuch as they are located around the pump barrels the pitch is drawn from the hottest part of the tank. The cover of the pitch tank has a conduit 44 leading to the stack 18, for carrying off vapors.

The whole top or cover 9 may be lifted from the tank and vapor boxes, as illustrated in Fig. 3, carrying with it the pumps and nozzles, and connecting piping, so that repairs can conveniently be made or the tank and boxes cleaned.

In operation the kegs placed on one end of the machine are rolled from one nozzle to the other, said nozzles being placed in the bungs, as usual. By opening the valve 22 steam is sprayed into the kegs to melt

the pitch and other material therein which flows out around the nozzles and into the boxes 15, the liquid part escaping at 16 and the vapor passing through the conduits 17 under the pitch tank and thence out through the stack. After cleaning the keg is rolled to the pitching nozzle 29, where the interior of the keg is sprayed with pitch by operation of the pump, after which the keg is removed from the machine. Several kegs may be simultaneously treated.

The machine constructed as illustrated will be found very convenient for the uses mentioned, and it is to be understood that various modifications may be made within the scope of the invention, no limitation in this respect being implied.

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

1. In a pitching and cleansing machine, the combination of rests for kegs or the like, a nozzle at one of said rests, means to supply a heated fluid to said nozzle, to spray a keg or the like on said rest, a pitch tank, a pitching nozzle at another of said rests, means to force pitch from the tank through the nozzle, a conduit to conduct heated vapor from said keg into heating relation with the pitch tank, to heat the latter, and a trap in the conduit, to separate liquid from said vapor.

2. In a pitching and cleansing machine, the combination of a pitch tank, a fumes box adjacent the same, a frame provided with keg rests located respectively over said tank and box, a pitching nozzle located at the rest over the tank, means to force pitch from the tank through the nozzle, a cleansing nozzle located at the rest over said box, means to force a heated fluid through said nozzle and into a keg on said rest, the box being arranged to receive the vapor and other matter flowing from said keg, a conduit to conduct the vapor from the box into heating relation with the pitch tank, to heat the same, and a trap between the box and the conduit, to separate liquid from said vapor.

3. In a pitching machine, the combination of a pitch tank, a removable cover frame thereon, a pump, and a heating coil surrounding the same, in the tank, and an operating device connected to the pump, said pump, coil, and operating device being supported by the said frame and removable therewith from the tank.

4. In a pitching and cleansing machine, the combination of a pitch tank, a receiving box located beside the same, a cover frame over said tank and box, keg rests on the frame, over said tank and box respectively, means to force pitch from the tank into a keg on the rest thereover, means to force a heated fluid into a keg on the rest over the

box, said box being in position to receive
waste vapor and other matter discharged
from the keg, a stock for fumes, a conduit
leading from said box into heating relation
5 with said tank, to heat the same, and thence
to the stack, and a fumes conduit from the
tank to said stack.

In testimony whereof, I do affix my signature
in presence of two witnesses.

HENRY WAIBEL.

Witnesses:

CARLETON L. TERRY,
J. C. THOMAS.

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