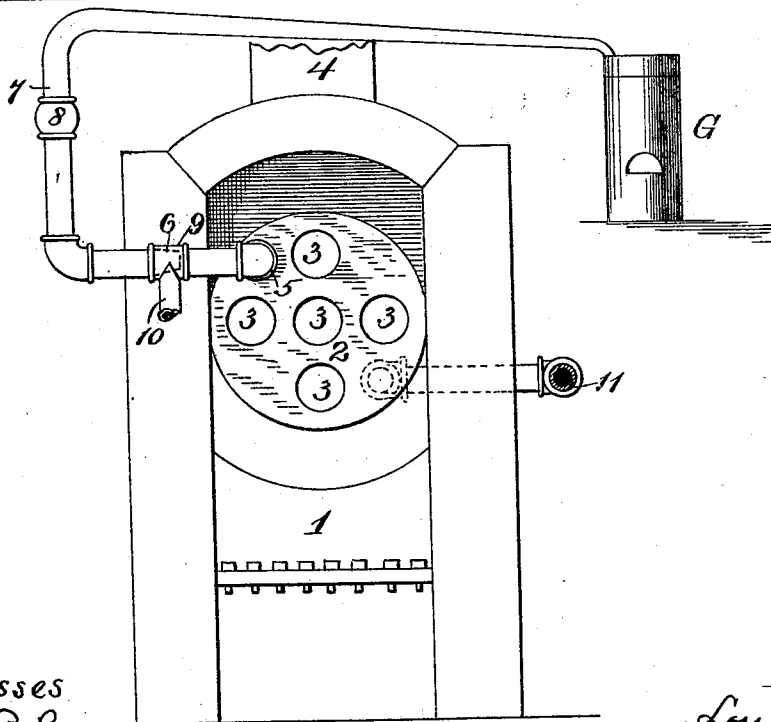
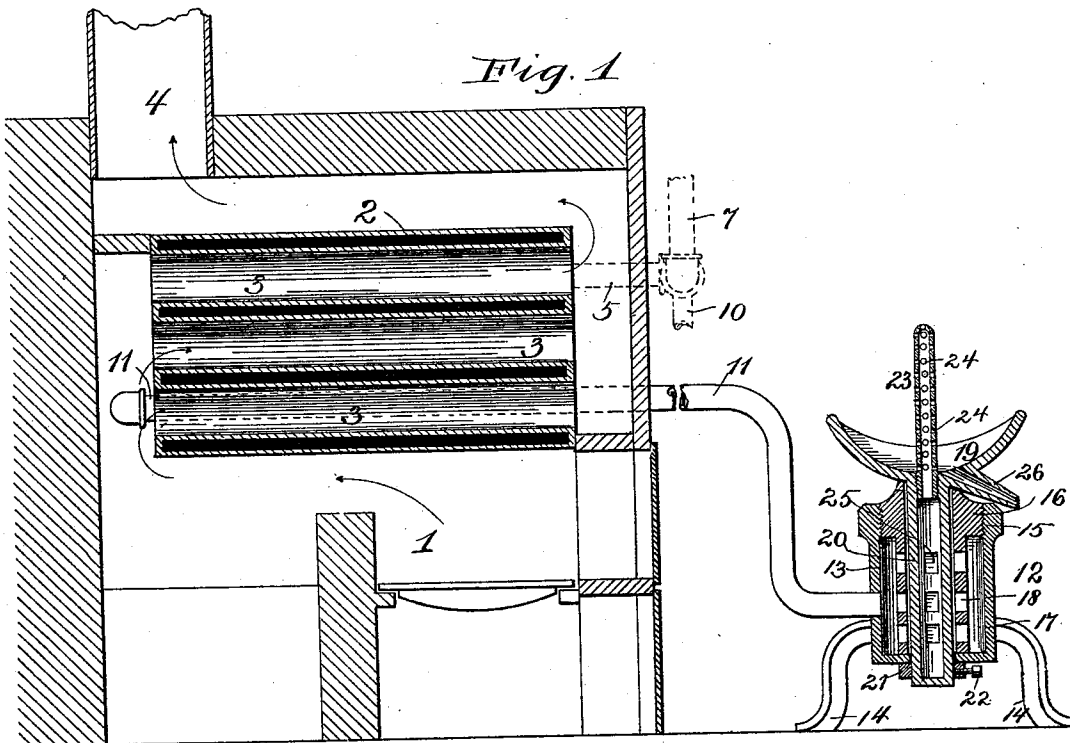


(No Model.)

L. WAGNER.  
PITCHING CASKS.

No. 517,400.

Patented Mar. 27, 1894.



Witnesses  
Joseph P. Bering  
J. M. Copenhaver.

Fig. 2.

Inventor:  
Louis Wagner  
W. H. N. Low  
Atty.

# UNITED STATES PATENT OFFICE.

LOUIS WAGNER, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO  
JOHN MARR, OF SAME PLACE.

## PITCHING CASKS.

SPECIFICATION forming part of Letters Patent No. 517,400, dated March 27, 1894.

Application filed June 27, 1893. Serial No. 478,966. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS WAGNER, a citizen of the United States, residing at Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Pitching Casks, &c.; and I do 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 appertains to make and use the same.

It is the object of my present invention to provide for heating the interior of casks, such as those used for the storage and transportation of beer, for the purpose either of applying new pitch to the same or for the purpose of melting and removing the old and impure pitch to allow of the reapplication of a fresh coating. By my improvements I provide for heating the casks interiorly in a rapid, thorough and economical manner, and at the same time enable the heat so applied to be accurately tempered in order that the heat and fuel may not be wasted or the interior of the cask or the pitch, injured. For this purpose I combine with a suitable heating chamber analogous in construction to a steam boiler and having an air inlet, a steam injecting apparatus adapted to force into the heating chamber such amount of air as will together with the steam when highly superheated produce the volume of vapor necessary for heating the cask. The steam jet forms the motive power for passing the vapor to be heated through the heating chamber and for applying it interiorly to the cask, and at the same time serves by the regulation of its amount to accurately determine the temperature of the vapor at the point where it performs its heating function. I further provide a stand of improved character to receive the cask or keg while it is being operated upon.

In order to make my invention more clearly understood I have shown in the accompanying drawings means for carrying the same into practical effect, without however limiting the invention in its useful applications to the particular construction which, for the sake of illustration, I have delineated.

In said drawings:—Figure 1 is an elevation partly in section showing an apparatus for pitching casks embodying my improvements.

Fig. 2 is a front view of the vapor-heating device.

Referring to the drawings, 1 indicates a furnace above which is mounted an air or vapor heater of suitable character. I prefer one of the constructions shown, indicated at 2, which is analogous in its arrangement to a steam boiler and is provided with flues 3 for the products of combustion. The latter make their exit from the front end of the said flues and, returning over the air heater, pass from the apparatus through the chimney 4.

5 is a pipe entering the air heater 2, preferably at the front end, in which, or in connection with which, is mounted a steam jet nozzle 6 (Fig. 2). The latter is supplied with steam from a suitable generator G through a pipe 7 controlled by a valve 8.

9 is a chamber situated in proximity to or surrounding the nozzle 6, and having an ingress opening or pipe 10 communicating with the atmosphere and through which air is adapted to be drawn by the action of the nozzle 6 and caused to pass by the force thereof and in company with the injected steam through the pipe 5 and into the heater 2. In the latter the air is highly heated, and the steam is further vaporized or super-heated, and the combined vapor passes by its own force and pressure through the exit pipe 11 which leaves the air or vapor heater at the rear end (Fig. 1). The pipe 11 extends to the barrel or keg supporting device 12. This device consists preferably of a chamber 13 of suitable material such as cast iron, which is supported in any desired manner, as for instance by legs 14 cast with or attached thereto. The chamber 13 has formed at its upper end a screw-thread 15 which is engaged by corresponding thread upon a sleeve 16 the lower portion of which is of less diameter than the interior dimension of the chamber 13, thus forming an annular space 17. Into the latter the heating vapor is delivered at a high temperature by the pipe 11.

18 indicates one or more ports or openings formed through the sleeve 16 and adapted to admit the heating vapor from the space 17.

19 indicates a concave or hollow support or cradle provided with a downwardly extending tube 20 adapted to fit and turn freely

within the sleeve 16. This tube is closed at its lower end and may be passed through the bottom of the chamber 13 and provided exteriorly of the latter with a collar 21 secured thereto by a set screw 22 and serving to keep the said tube and cradle 19 in place upon the device while permitting their free rotation.

23 is a nozzle screwed into the upper end of the tube 20 and provided on its upper end and upon all sides with suitable perforations 24 through which the heating vapor is adapted to escape in jets with considerable force. Said nozzle is adapted, when the cask or keg is placed with its bung orifice downward in or upon the cradle 19, to enter the receptacle and, when the heating apparatus is set in operation, to deliver numerous jets of heating air or vapor against the inner walls of the said cask at all points.

25 indicates a port or ports formed through the tube 20 and corresponding with the port or ports 18 in the sleeve 16. The ports 25 may be caused to register with the ports 18 by a partial rotation of the support 19 and its tube 20. When the ports are thus caused to register the heating vapor will be delivered as above described. When the support and tube are turned so that said ports will not be opposite to each other the escape of the heating vapor from the chamber 17 is prevented, and opportunity is given for removing a heated keg and replacing it with one to be heated or from which the pitch is to be removed.

26 indicates a spout extending from the lower portion of the support 19 and adapted to carry away the liquid pitch which is melted within the cask and escapes through the bung hole thereof into the said concave support.

By employing a blast of highly heated air

containing in suspension a certain amount of water vaporized and finely divided I greatly facilitate the conduction of heat to the interior of the keg or cask, or to the old pitch on the surface thereof, and make the operation more effective, expeditious and economical, without combustion of the keg or pitch.

Having thus described my invention, what I claim is—

1. The combination of the air heating chamber 2, a steam generator connected therewith, a holder having a rotary support provided with a jet nozzle and ports 25, a bearing for said holder having ports 18, and a delivery pipe 11 leading from said chamber and communicating with the latter ports, substantially as set forth.

2. The herein described holder having a support which is rotary and provided with a jet nozzle 23, a sleeve or bearing for said holder in which it is adapted to rotate, and ports formed in said holder below the nozzle and in said sleeve which are adapted to be caused to register with each other or may be moved out of line to cut off access to said nozzle by turning said holder, substantially as set forth.

3. The combination of the chamber 13, the sleeve 15 fitted therein, the holder 19 having a tube 20 fitting in said sleeve and provided with the nozzle 23, and a pipe or conduit leading to said chamber, said sleeve and tube being provided with ports as described, substantially as and for the purpose set forth.

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

LOUIS WAGNER.

Witnesses:

H. N. LOW,  
CHAS. W. PARKER.