

(No Model.)

H. TORCHIANI.
CASK PITCHING APPARATUS.

No. 537,134.

Patented Apr. 9, 1895.

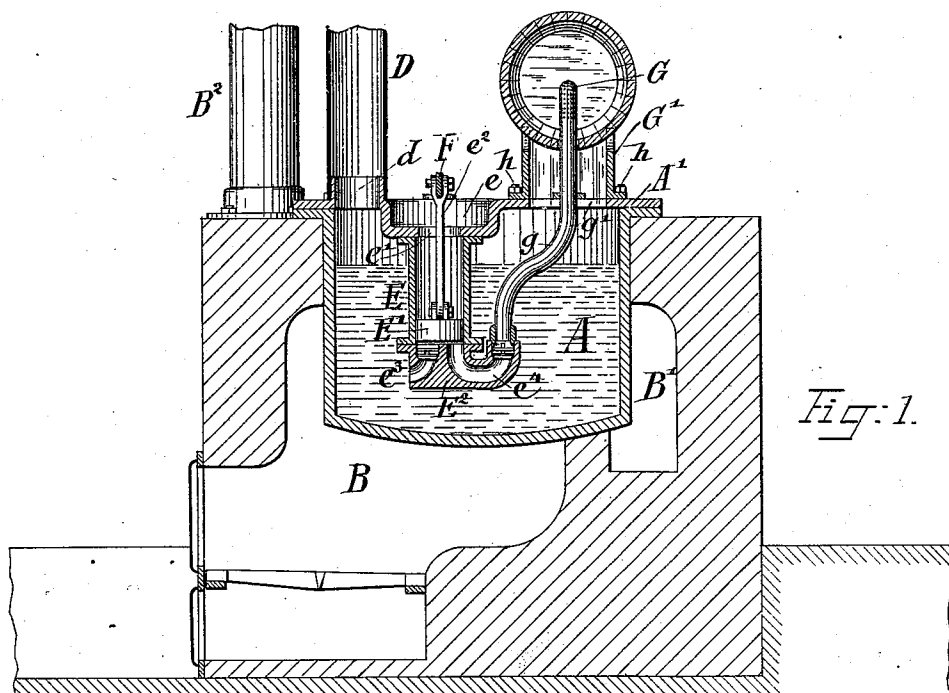
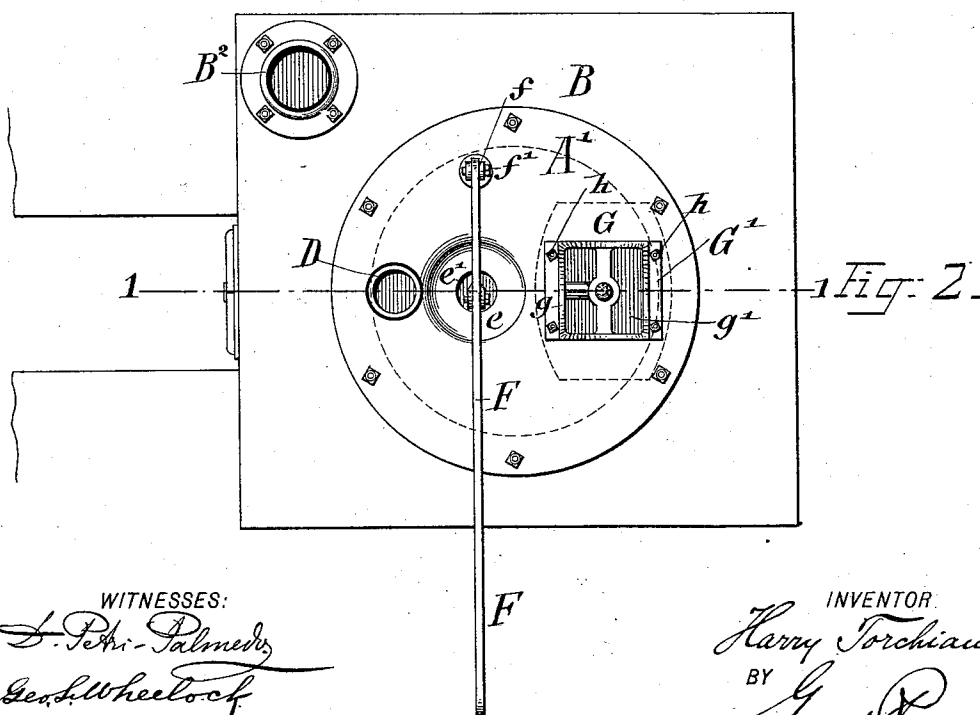


Fig. 1.



WITNESSES:

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CASK-PITCHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 537,134, dated April 9, 1895.

Application filed April 7, 1894. Serial No. 506,737. (No model.)

To all whom it may concern:

Be it known that I, HARRY TORCHIANI, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Pitching-Machines, of which the following is a specification.

This invention relates to certain improvements in the pitching-machine for which Letters Patent No. 514,172, dated February 6, 1894, were granted to me, the improvements relating mainly to a simplified construction of the machine by transferring the pump, by which the hot pitch is supplied to the spraying-nozzle, from the flue in which the same was heretofore located into the pitch-kettle itself, so as to be submerged in the liquid pitch in the same, whereby the pitch is supplied in a hotter and more liquid condition to the interior of the keg to be pitched than by the construction heretofore patented; and the invention consists of a pitching-machine, which comprises a pitch-kettle, a furnace for heating the same, a pump arranged at the under side of the cover of the kettle so as to be submerged in the liquid pitch, and a spray-nozzle that passes through the cover of the kettle and is connected with the valved outlet-port of the pump, while the inlet-port communicates with the interior of the kettle.

The invention consists further of certain details of construction, which will be fully described hereinafter and finally pointed out in the claim.

In the accompanying drawings,—Figure 1 represents a vertical longitudinal section on line 1, 1, Fig. 2, of my improved pitching-machine, and Fig. 2 is a plan-view of the same.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a pitch-kettle, which is of the ordinary size and construction, and which is set in the brick-work and heated by the fire of a furnace B. The kettle A is closed by a cover A', which is permanently attached to the same, and which is provided with an opening *d* and an escape-pipe D, through which the vapors from the pitch are conducted to the outside.

Around the pitch-kettle extends a flue B', by which the connection of the fire-chamber

of the furnace with the smoke-stack B² is made.

The cover A' is provided adjacent to the vapor-escape-pipe D with a cavity or depression *e*, which is provided with a central opening *e'*. To the under side of the depression *e* of the cover A' is attached the cylinder E of a pump, the piston E' of which is pivoted to a piston-rod *e²*, pivoted at its upper end to a lever F, which is pivoted at *f'* to ears *f* on the cover A', as shown in Fig 2.

The cylinder E extends downwardly into the pitch-kettle A, and is connected at its lower end with a shoe E², in which valved inlet-port *e³* and outlet-port *e⁴* are arranged, the outlet-port being connected by a pipe *g* with a spray-nozzle G. The pipe *g* is extended through an opening *g'* in the cover A', so that the spray-nozzle G is arranged at some distance above the kettle. The opening *g'* is inclosed by a rectangular box G', two parallel sides of which are concaved at the top, so as to support the keg in position for receiving the pitch through the spray-nozzle. The box G' is made of suitable metal, and is attached by means of screw-bolts *h* to the cover A'. The opening *g'* corresponds in size with the inside area of the rectangular box G', and serves also as the filling opening of the kettle, through which the new quantity of pitch to be melted in the kettle is supplied from time to time.

The piston and the inlet and outlet-valves, being submerged in the liquid pitch, are lubricated by the same, so as to respond easily when operated by the oscillation of the handle F up and down. The upward motion of the piston draws in the pitch from the kettle through the valved inlet-port *e³* to the interior of the cylinder E, while the downward stroke thereof closes said inlet-port *e⁴* and forces the pitch through the valved outlet port and the pipe *g* out through the spray-nozzle G and into the keg supported on the rectangular box G'. During the upward motion of the piston, the valve of the outlet-port *e⁴* is closed, while during the downward stroke of the piston the valve of the inlet-port *e³* is closed, so as to produce the proper working of the pump in the usual manner. The pitch is forced through the opening of the nozzle G

and discharged into the keg, so as to cover the interior surface of the same with a uniform layer of pitch. As the keg is placed with its bung-hole over the spray-nozzle, the surplus pitch collected around the latter is conducted along the supply-pipe *g* back into the kettle, the size of the keg and a longer or shorter stroke being immaterial, as any surplus of pitch is returned to the kettle, so that no special skill in operating the pump is required by the attendant.

By arranging the pump directly in the pitch-kettle the pitch is forced into the keg at nearly the same temperature as the pitch in the kettle, all the operating parts of the pump being submerged and kept always at the same temperature. The construction of the pitching-machine is, furthermore, simplified and rendered more compact, all the working parts being arranged partly inside and partly outside of the kettle, on the cover. By the direct transfer of the pitch from the kettle to the keg, a considerable saving of pitch is obtained, as none is spilled or lost, all the surplus pitch being returned in a liquid state to the kettle.

I do not desire to claim broadly the combination of a pitch-kettle, a furnace for heating the same, a cover attached to the pitch-kettle, a pump attached to the under side of the

cover, means for operating the pump, a spray-nozzle connected with the outlet-port of the pump, and means for supporting the keg when the same is placed on the spray-nozzle.

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

The combination of a pitch-kettle, a furnace for heating the same, a cover attached to said kettle, a depression in said cover provided with a central opening, a pump attached to the under side of said depression, means for operating the pump, valved inlet and outlet-ports arranged in a shoe attached to the under side of the pump, a spray-nozzle arranged above the cover, a discharge-pipe connecting the outlet-port of the pump with the spray-nozzle, a rectangular box arranged around the discharge-pipe and adapted to receive the kegs to be pitched, and an opening around the discharge-pipe at the inside of the box, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

HARRY TORCHIANI.

Witnesses:

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K. R. BRENNAN.