2 Sheets--Sheet 1.

A. WARTH.

Improvement in Machines for Pitching Casks and Barrels.

No. 114,999. *Fig: 1.* Patented May 16, 1871.

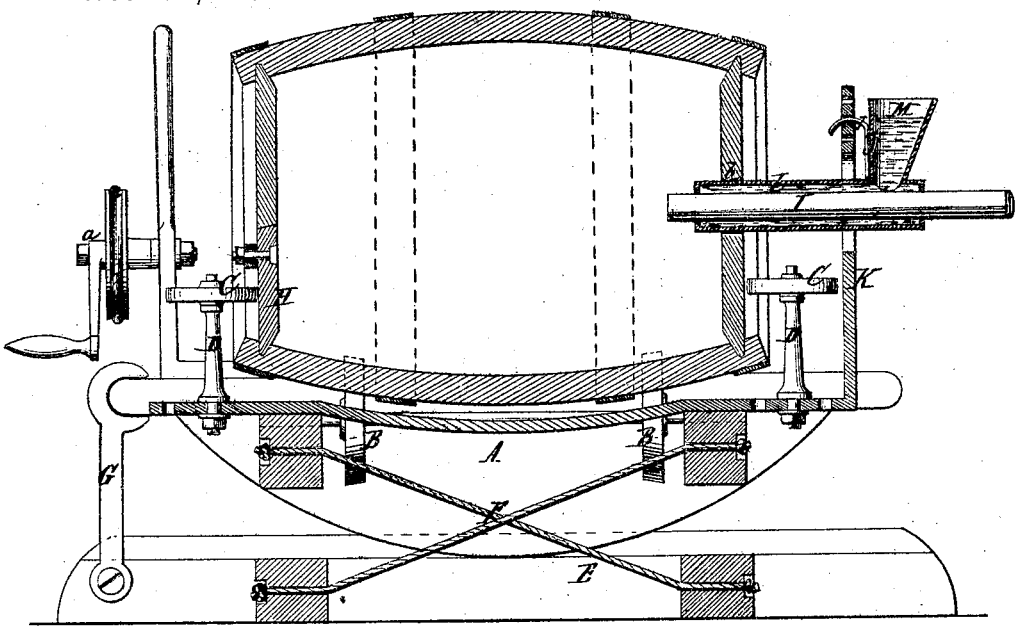
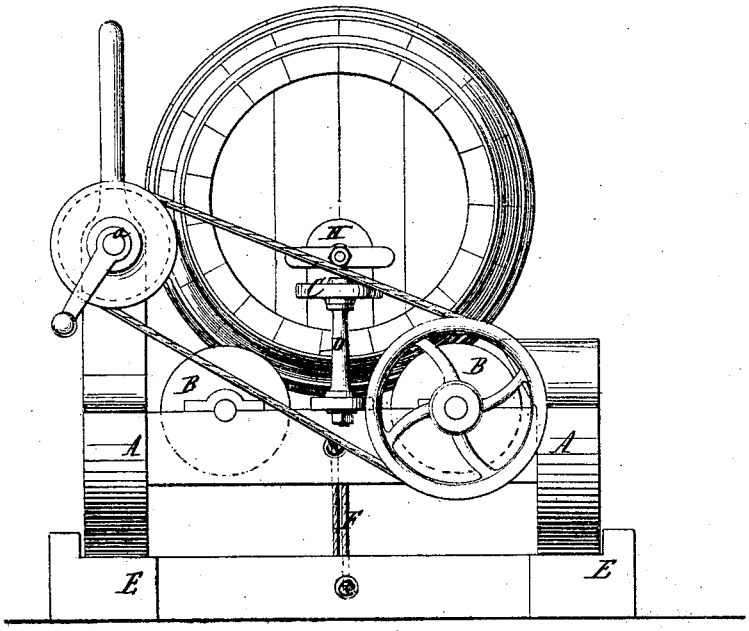


Fig: 2.



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2 Sheets--Sheet 2.

A. WARTH.

Improvement in Machines for Pitching Casks and Barrels.

No. 114,999. Patented May 16, 1871.

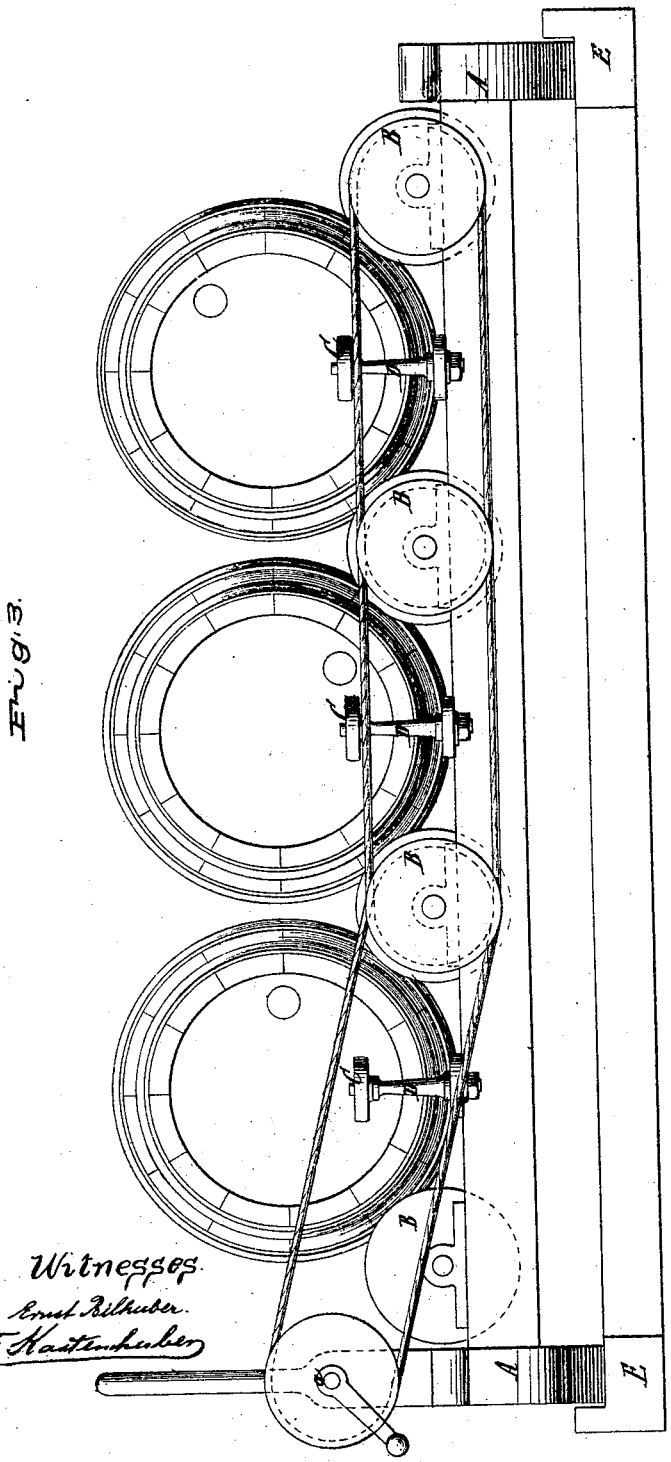

Fig. 3.

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United States Patent Office.

ALBIN WARTH, OF STAPLETON, NEW YORK.

Letters Patent No. 114,999, dated May 16, 1871.

IMPROVEMENT IN MACHINES FOR PITCHING CASKS AND BARRELS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ALBIN WARTH, of Stapleton, in the county of Richmond and the State of New York, have invented a new and improved Machine for Pitching Casks and Barrels; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a longitudinal vertical section of this invention.

Figure 2 is an end view of the same.

Figure 3 is a side view of my apparatus when arranged to receive a number of barrels at a time.

Similar letters indicate corresponding parts.

This invention consists in a rocking frame provided with bottom rollers and end rollers, the bottom rollers being capable of receiving a rotary motion, by a belt or other means, in such a manner that a barrel or cask placed on said rocking frame is supported by the bottom rollers and prevented from sliding off endwise by the end rollers, and that by means of said bottom rollers and of the rocking frame a revolving and also a pitching motion can be imparted to the cask or barrel.

The rocking frame is retained on a grooved support or rails by cords or other flexible connections.

A suitable stop-cock serves to stop the motion of the rocking frame.

The pitch to be spread in the interior of the barrel or cask is melted by the action of heated air introduced through a pipe at or near the center of one of the heads of the barrel or cask; and after the pitch has been spread by the revolving and pitching motion imparted to the cask or barrel it is rapidly cooled by the introduction of cold air, and thereby the pitch is prevented from running into clots while cooling, and the labor is materially reduced.

The hot-air pipe is protected by a water-jacket to prevent the barrel-head from getting scorched.

In the drawing—

The letter A designates a rocking frame or cradle, which is provided with bottom rollers B and end rollers C.

The bottom rollers are beveled inward so that they conform to the surface of a barrel or cask to be supported by them, and one or more connect by a belt and belt-wheels, or by cog-wheels or other means, with a driving-shaft, *a*, so that by imparting to said shaft a revolving motion the cask or barrel supported by the bottom rollers is caused to rotate.

The end rollers C are secured on standards D rising from the platform of the rocking frame, and these standards are made adjustable toward and from each other, so that the distance between the end rollers can be accommodated to casks or barrels of different sizes.

By imparting to the cradle A a rocking motion a pitching motion is given to the barrel or cask supported thereby.

The cradle rests upon grooved supports or rails E, to which it is connected by ropes or chains F, (see fig. 1,) which allow the cradle to rock but prevent it from sliding on the rails.

To one of the rails E is connected a hook, G, which can be turned up and made to catch over the end of the cradle A, as shown in fig. 1, and thereby the rocking motion of said cradle is stopped.

The pitch, which is used to line the barrel or cask, is introduced through the door or man-hole H, and after this door is again closed the pitch is melted by a current of hot air, while at the same time a rolling and pitching motion is imparted to the cask or barrel, whereby the pitch is caused to spread uniformly and rapidly over the inner surfaces of the body and of the heads of the cask or barrel.

The hot air is introduced through a pipe, I, which enters the cask or barrel through a hole, *b*, at or near the center of one of its heads, so as not to interfere with the revolving motion of said cask or barrel, and it (the air-pipe) is suspended from a hook, J, secured in a standard, K, which rises from the platform of the cradle A, so that said pipe is compelled to follow the rocking motion of the cradle.

That portion of the air-pipe I which passes through the hole in the head of the cask or barrel is protected by a jacket, L, supplied with cold water through a spout or funnel, M, so as to protect the edge of the hole *b* from becoming scorched by coming in direct contact with the hot surface of the air-pipe.

After the pitch has been spread over the entire surface of the cask or barrel I inject a current of cold air, while the pitching and revolving motion of the barrel or cask is continued, until the pitch has set.

By these means the barrel or cask is rapidly cooled, and the pitch is prevented from running into clots while cooling; at the same time the foul air is driven out of the cask or barrel by the currents of air blown into the same.

The operation of lining a barrel or cask with pitch can thus be conducted with comparatively little labor, and in a much shorter time than by the old method, and the barrels or casks are effectually protected against being scorched.

My apparatus can also be so constructed that two or more barrels or small casks can be coated with pitch at one and the same time, as shown in fig. 3.

In this case the cradle is provided with six or more pairs of bottom rollers and with two or more pairs of end rollers, and the bottom rollers are all connected

to one and the same driving-shaft, either by belts or otherwise.

Each barrel, however, must be provided with its own separate air-pipe, but all the barrels can be supplied with hot or cold air from one and the same source, either by a fan-blower or air-pump, the hot-air pipes being conducted through a furnace before they pass into the barrels, while the cold-air pipes may be passed through a refrigerator or cooling-tank.

What I claim as new, and desire to secure by Letters Patent, is—

1. The cradle A, provided with bottom rollers and end rollers to support and retain a barrel or cask, substantially as described.

2. The retaining-ropes or chains F, in combination with the cask-supporting cradle and its rails, substantially as set forth.

3. The retaining-hook G, in combination with the cask-supporting cradle and its rails, substantially as described.

This specification signed by me this 25th day of March, 1871.

ALBIN WARTH.

Witnesses:
W. HAUFF,
E. F. KASTENHUBER.