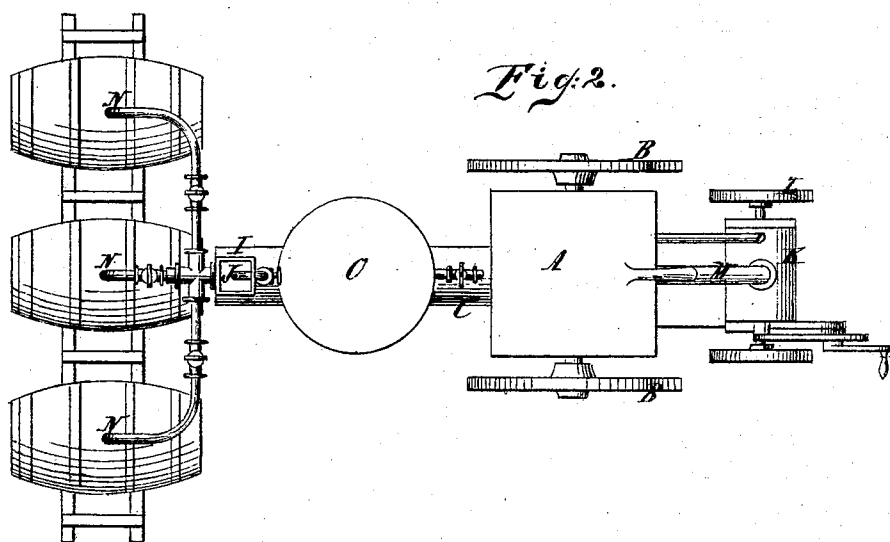
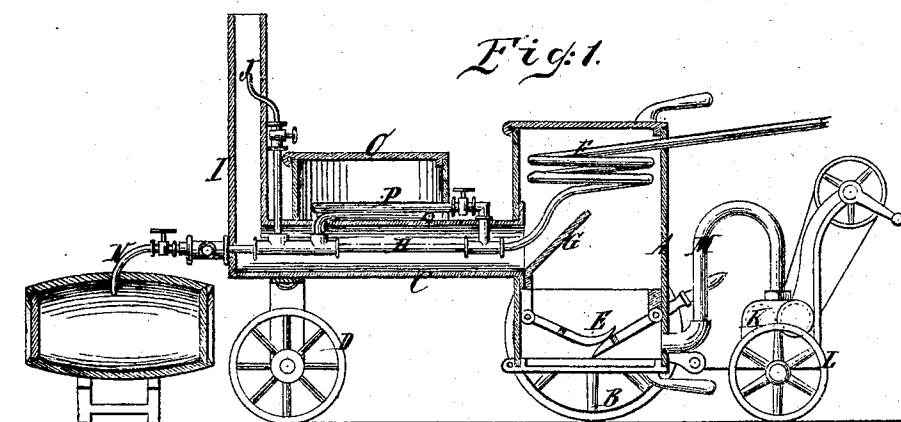


T. KRAUSCH.

Improvement in Steam Superheating Apparatus.

No. 128,315.

Patented June 25, 1872.



Witnesses
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UNITED STATES PATENT OFFICE.

THEODORE KRAUSCH, OF NEW YORK, N. Y.

IMPROVEMENT IN STEAM SUPERHEATING APPARATUS.

Specification forming part of Letters Patent No. 128,315, dated June 25, 1872; antedated June 8, 1872.

To all whom it may concern:

Be it known that I, THEODORE KRAUSCH, of the city, county, and State of New York, have invented a new and Improved Steam Superheating Apparatus; 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 my specification, in which drawing—

Figure 1 represents a longitudinal vertical section of this invention. Fig. 2 is a plan or top view of the same.

Similar letters indicate corresponding parts.

This invention consists of a furnace mounted upon wheels, and containing a steam superheating coil provided with one or more nozzles. It also consists in combining, with a furnace mounted on wheels and containing a steam superheating coil provided with one or more nozzles, a tank, which is provided with a steam-coil for a purpose hereinafter more fully explained. It further consists of a smoke-flue, through which extends a pipe which connects with the steam-coil, and which is provided with a steam-jet passing into the smoke-stack, and with one or more nozzles, through which the superheated steam escapes in such a manner that a portable superheater is obtained which can be worked economically, and which can be used with advantage for heating or cleaning barrels or other vessels of any description. On the smoke-flue of the furnace is placed a tank containing a coil, which connects with the steam-pipe passing through the smoke-flue in such a manner that paint, pitch, or other materials placed in said tank can be heated with economy, partly by the heat radiating from the smoke-flue and partly by the heat radiating from the steam-coil in the tank.

In the drawing, the letter A designates a furnace, which is supported by wheels B, and from which extends a smoke-flue, C, the front end of which rests on wheels D, so that the whole apparatus can be conveniently moved from place to place. In the bottom part of the furnace A is a grate, E, of any desirable construction, a dumping-grate being used by preference; and in the top part of said furnace

is situated a steam-coil, F, which connects with a steam-boiler. The heat rising from the grate E strikes a deflector, G, so that the same is compelled to come in contact with the steam-coil before it is allowed to escape through the smoke-flue C. From the steam-coil extends a pipe, H, through the smoke-flue, and said smoke-flue connects, at its outer end, with a smoke-stack, I, through which the gaseous products of combustion are carried off. In this smoke-stack is situated a steam-jet, J, which is fed with steam from the pipe H, and by the action of this steam-jet the draught of the fire in the furnace is increased. If desired, a fan-blower, K, may be applied, which is supported by a separate truck, L, and which connects, by a pipe, M, with the furnace below its grate, so that the draught of the fire can be increased, particularly if not sufficient steam should be on hand to set the steam-jet going. The steam, while passing through the steam-coil F and through the pipe H, is superheated, and it escapes from said pipe H through one or more nozzles, N, which are provided with stop-cocks to control the escape of steam through the same. On the smoke-flue C is placed a tank, O, in which is situated a steam-coil, P, which connects at both ends with the pipe H, so that some of the superheated steam from said pipe may be made to pass through the coil in the tank. Said tank may be filled with pitch or with paint, or, if desired, with water or any other material which it is desirable to heat for the purpose in view.

My superheater is intended particularly for the purpose of cleaning barrels, vats, or other vessels, such as are used in breweries, sugar-refineries, or other manufactories, and by injecting superheated steam in said vessels the operation of cleaning them is materially facilitated.

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

1. A furnace mounted on wheels, and containing a steam superheating coil provided with one or more nozzles, N, substantially as and for the purpose set forth.

2. The furnace A, containing a steam-coil, F, and provided with one or more nozzles, N, in combination with a steam-pipe, H, and smoke-

flue C, all mounted on wheels B D, and operating substantially as described, for the purpose set forth.

3. In combination with a furnace, A, containing steam-coils F and P, mounted on wheels B D, I claim the tank O, substantially as and for the purpose set forth.

4. In combination with a furnace mounted on wheels B D and containing a steam-coil, F, provided with one or more nozzles, N, I claim the tank O, steam-coil P, pipe H, and flue C, all operating together, substantially as and for the purpose set forth.

5. The furnace A, containing a steam-coil, F, provided with one or more nozzles, N, in

combination with the tank O, steam-pipe H, smoke-flue C, and steam-jet J, substantially as described, for the purpose set forth.

6. In combination with the furnace A, smoke-flue C, steam-coil F, and pipe H, I claim the tank O situated on the smoke-flue, and provided with a steam-coil, P, connected to the pipe H, substantially as set forth.

This specification signed by me this 4th day of October, 1871.

THEODORE KRAUSCH.

Witnesses:

W. HAUFF,
J. KOENIGSBERG.