Wm Vogt's Furnace for Heating Beer Barrels.

116896

PATENTED JUL 11 1871

Fig. 3.

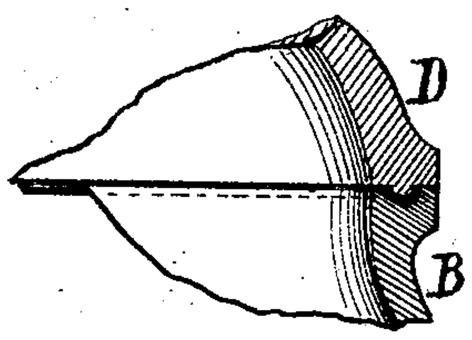


Fig. 1.

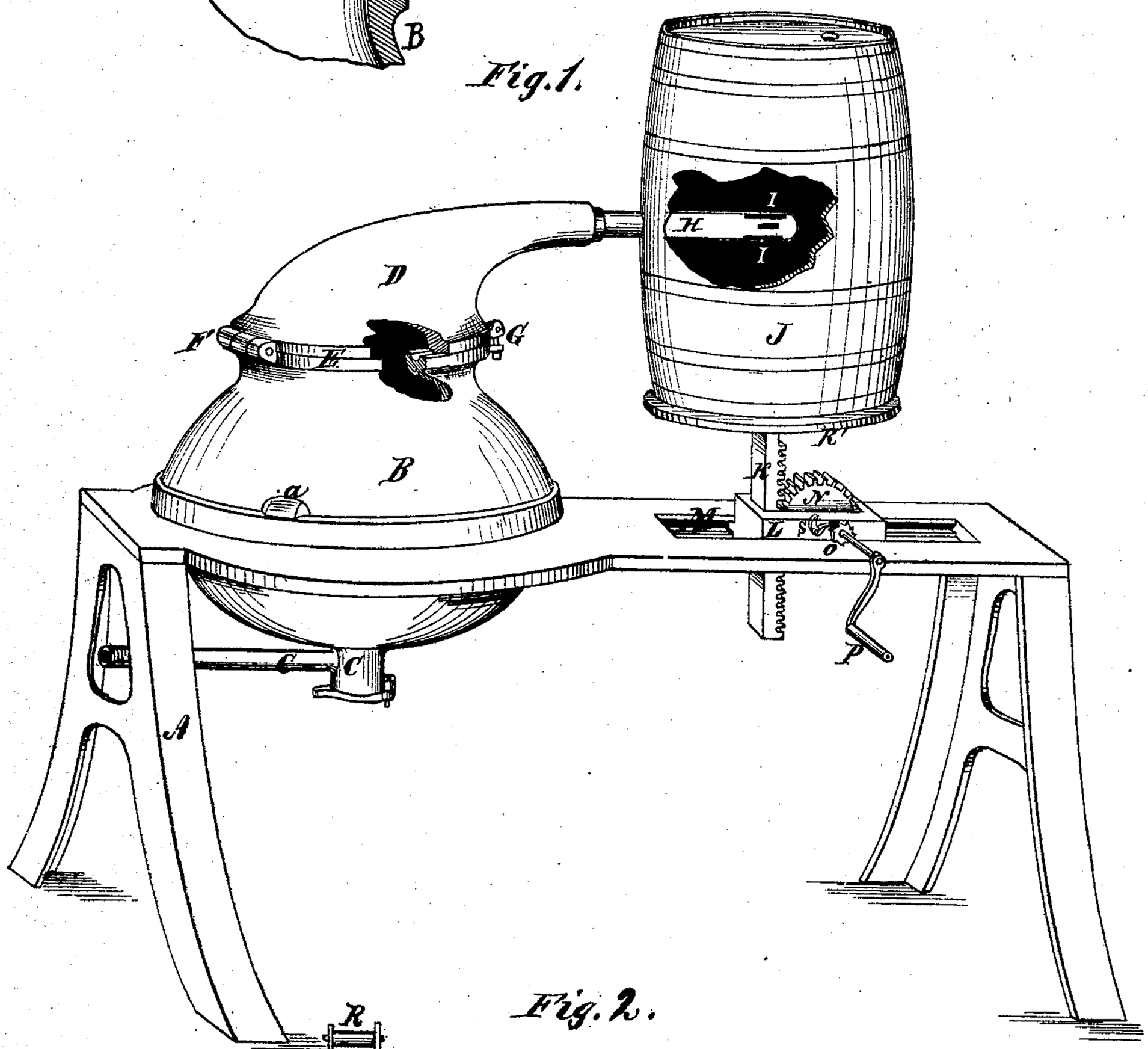
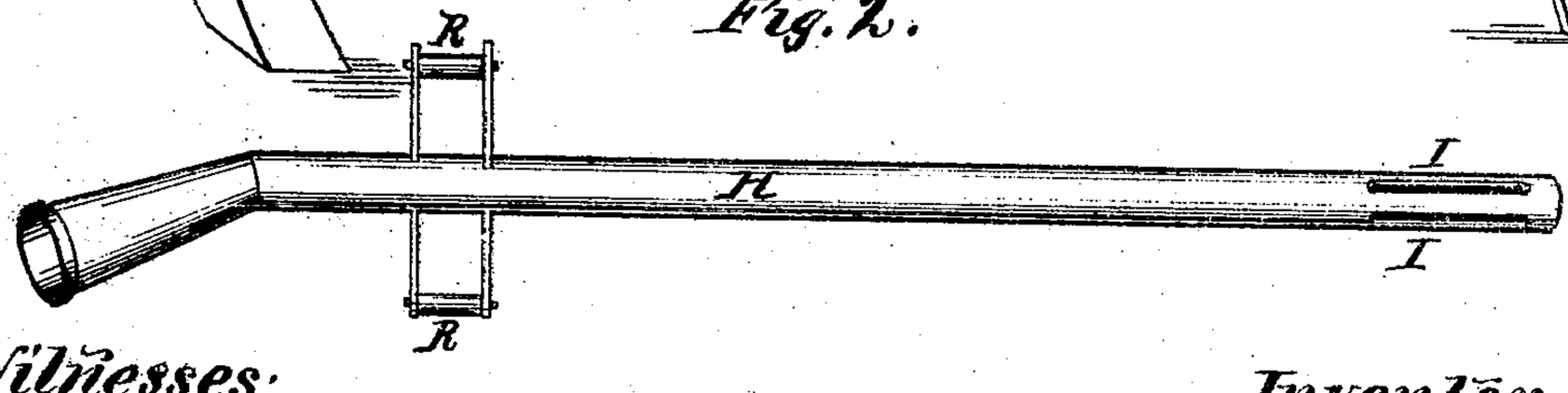


Fig. 2.



Witnesses:

D. Howe

J. E. M. Bowen.

Inventor:

Wm Vogt,

by Geo. Rothwell

Asso. Atty

UNITED STATES PATENT OFFICE.

WILLIAM VOGT, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN APPARATUS FOR PITCHING BEER AND OTHER BARRELS AND CASKS.

Specification forming part of Letters Patent No. 116 896, dated July 11, 1871.

To all whom it may concern:

Be it known that I, WILLIAM VOGT, of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Apparatus for Heating Barrels; and I do hereby declare the following to be a full, clear, and exact description thereof, sufficient to enable those skilled in the art to which my invention appertains to fully understand and to make and use the same, reference being had to the accompanying drawing forming part of this specification, and in which—

Figure 1 is a perspective view of an apparatus embodying my improvements, part being broken out to show the construction. Fig. 2 is a view of a nozzle intended for use with hogsheads. Fig. 3 is a detail view, to be hereinafter more fully referred to.

My improvements relate to apparatus for heating barrels preparatory to coating the same on the inside with pitch, resin, or other suitable substance or composition, to prevent them from leaking. The invention consists in the construction of the nozzles with orifices so made and arranged that the flames issuing from them shall be of unequal length, those from the upper and lower openings being longer than those from the sides, to heat all parts of the barrel equally and thoroughly. It further consists in the combination of parts whereby the barrel-stand is made both vertically and horizontally adjustable. It also consists in the construction, arrangement, and combination of the several parts composing my improved apparatus, all as hereinafter described and claimed.

I will now proceed to describe my invention in detail, referring to the accompanying drawing, in the several figures of which similar letters of reference indicate like parts.

The furnace and barrel-stand are supported on a frame-work of any suitable construction, which may be represented by A. This frame-work may be made of wood or iron. The furnace B D is set in an opening in an iron plate or ring on the frame A, and is supported thereon by lugs *a*. In the lower part of the furnace is a grate, not shown, on which the coal is placed. C represents the blast or tuyere-pipe, entering the furnace at the bottom. The furnace is constructed in two parts, B and D, the lower portion being of globular form, while the other resembles the upper part of a still. The parts B and D are connected by a hinge, F, so that the cap D can be opened when fuel is to be supplied, thus dispensing with a door for that special purpose. The cap is held tightly closed by means of a hasp or other suitable fastening, G. It is very important that the joint E between the parts B D be perfectly air-tight, for if there exist the slightest leakage the blast will find it and escape and the metal will soon be melted. To prevent such leakage the contiguous surfaces of the parts B D are ground true, and on one of them is formed a tongue, which enters a corresponding groove in the other part. This construction is shown in Fig. 1, but more clearly in Fig. 3. A small quantity of clay, mortar, or other suitable material being placed in the groove, and the cap D closed and secured, an air-tight joint is formed. To accommodate the various sizes of kegs, barrels, and hogsheads, I provide for the adjustment of the barrel-stand toward and from the furnace, as being much easier than moving the furnace or changing the nozzle continually, although with my apparatus it is necessary to use an enlarged nozzle with hogsheads; not on account of the length required, but because the orifices in the nozzle must be larger in order to heat all parts of the interior.

I will now describe one way of making the barrel-stand horizontally adjustable; but I do not limit myself to the means set forth, as it is obvious that various methods of accomplishing this result may be employed to equally good and perhaps better advantage. L represents a sliding block moving on ways in the slot or opening M of the supporting-frame. In the block L is fitted the vertical sliding toothed bar K, on the top of which is secured the barrel-stand R′. On a transverse shaft journaled in bearings in the slide L is keyed a pinion, N, which engages with the rack-bar K. By turning the crank P the barrel-stand can be raised or lowered, according to the size of the barrel and the location of the bung-hole, and it is maintained at the desired elevation by a ratchet and pawl, S O. The slide L can be moved by hand or by mechanism applied for the purpose.

I am aware that the barrel-stand has been heretofore made adjustable by means of a rack and pinion, as in my case; but so far as I know there

has never been any provision for its horizontal adjustment, either in connection with a vertical adjustment or alone.

H, Fig. 1, represents the nozzle for use with barrels, a barrel being shown on the stand and designated by J. This nozzle is screwed into the end of the cap-pipe D. In the inner end of the nozzle are orifices I I. In order to heat the barrel thoroughly throughout without charring or burning any portion of the same I make the orifices above and below much longer than those in the sides of the nozzle, thus producing the large and small flames where they are needed. In Fig. 2 is represented a nozzle for use in heating hogsheads. It is adapted to slip over instead of screw into the end of the cap-pipe, and is provided with handles R, so that it can be attached and detached while hot. The orifices I I are more numerous than in the smaller nozzle, but are made on the same principle.

The operation of the devices will be obvious without further description.

The several improvements I have described go to perfect and render more useful the various apparatus for this purpose.

I do not claim the vertical adjustment of the barrel-stand, as this is not new. I am also aware that the barrel-stand has been mounted on a separate frame, so as to be capable of movement toward and from the furnace; that the furnace has been made in two separate parts secured together; also, that nozzles have been made with orifices in the sides, and in some cases provided with handles, and are described in the patent of L. Schultze, August 30, 1870, and reissued March 7, 1871; but as these form no part of my invention I do not claim them.

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

1. The nozzles H, provided with orifices so made and arranged that the flames issuing from them shall be of unequal length, substantially as herein described, for the purpose explained.

2. The slide L in the opening M, in combination with the barrel-stand and its elevating mechanism, whereby the said stand is made both vertically and horizontally adjustable, substantially as and for the purposes set forth.

3. An apparatus for heating barrels, composed essentially of the furnace B D E F G, with a nozzle, H I, and blow-pipe C, and a barrel-stand, R′, vertically adjustable and movable toward and from the furnace, all mounted upon a bed or frame, A, and operating substantially as hereinbefore described.

WILLIAM VOGT.

Witnesses:
E. F. HUYCK,
BEN. F. SLINGLANDT.