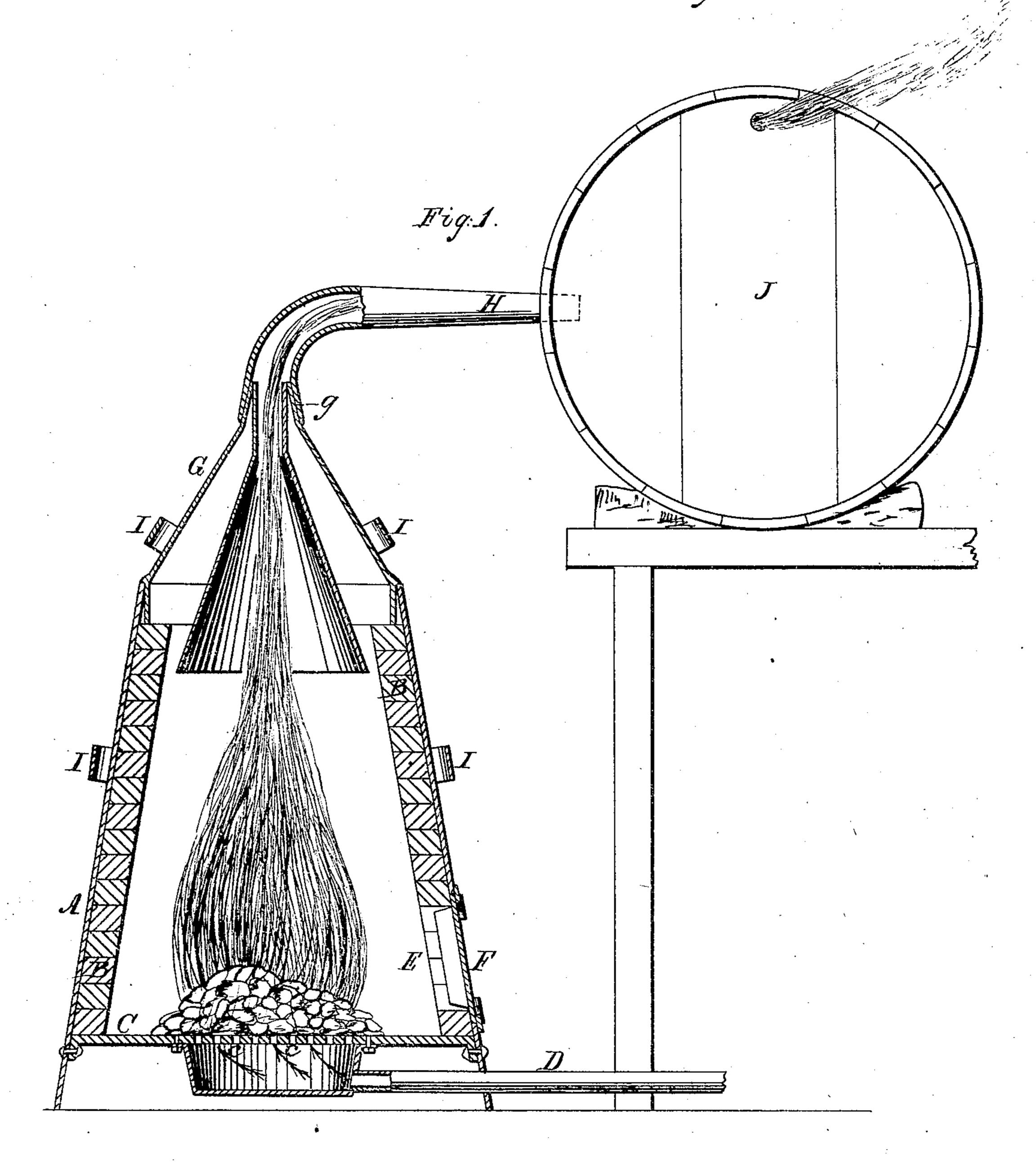
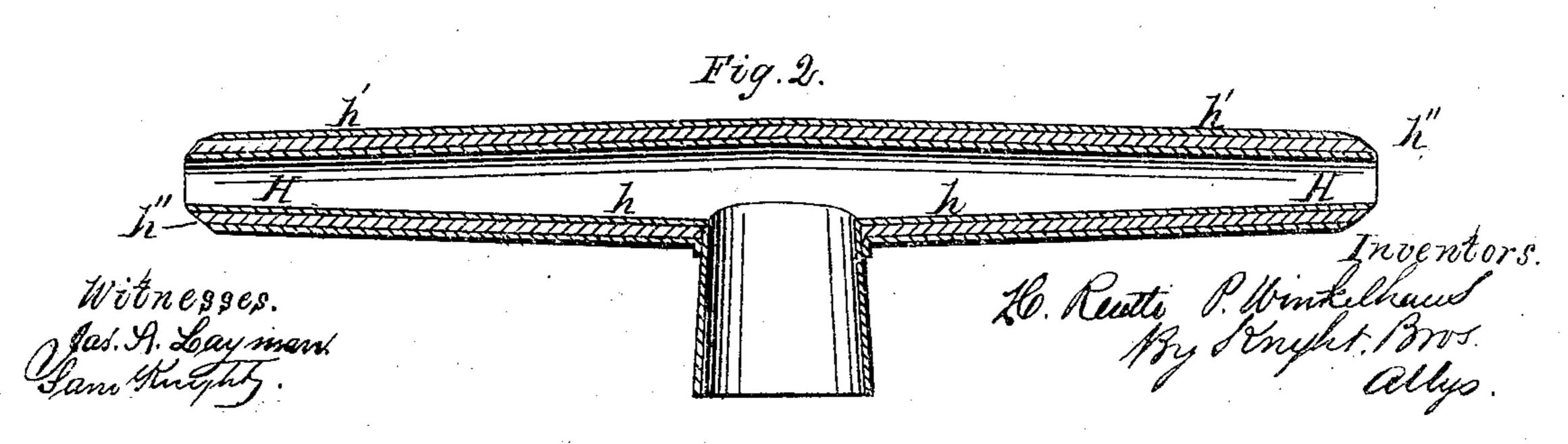
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Anited States Patent Office.

HERMANN REUTTI AND PHILIPP WINKELHAUS, OF HAMILTON, OHIO.

Letters Patent No. 102,156, dated April 19, 1870.

IMPROVEMENT IN APPARATUS FOR PITCHING BEER AND OTHER BARRELS.

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

To whom it may concern:

Be it known that we, HERMANN REUTTI and PHILIPP WINKELHAUS, both of Hamilton, Butler county, Ohio, have invented a new and useful Apparatus for Firing and Pitching Beer and other Barrels; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification.

This is an apparatus for firing or charring the interior surfaces of beer and other barrels for the purposes of purification, and it is intended to supercede the use of the common open cresset, and also the necessity of removing one of the heads, as now practiced for that purpose. The device is also applicable to pitching the interior of barrels.

The novelty consists in adapting such an apparatus for application to the customary bung-holes of barrels in rapid succession without injury to the bung-stave, and without requiring any special appliance for receiving the nozzle within the barrel.

To this end we construct the nozzle by which the fire is conveyed to the barrel of conical form, to adapt it to fit within the bung-holes, and of two concentric shells of metal, with a body of plaster of Paris, or other non-conducting material, between.

Figure 1 is a vertical section of our apparatus, with a single nozzle, as used for large casks and barrels.

Figure 2 is a section, on an enlarged scale, of a duplex arrangement of nozzles, illustrating our mode of constructing the nozzles to adapt them to fit tightly within the bung-holes without danger of charring them.

A is an external case or shell having the form of a conical frustum, and being lined with fire-brick B, and having an iron floor, C, whose perforations c receive a blast of air from a tweer, D.

E is a passage for replenishing or stirring the fire,

and closed by a door, F.

The said case or shell is surmounted by a crown, G, having a neck, g, to receive a nozzle, H, composed of two thicknesses of metal h and h', enclosing a layer of plaster of Paris, h''.

Both shell and crown are provided whith handles I

for lifting them.

J shows a barrel in position for firing or pitching. For use with ordinary beer-barrels our furnace is made about four feet high, and twenty inches diameter at the base, but may be varied in form and size for different purposes, and more than one nozzle may be employed, see fig. 2.

The operation is as follows:

A charcoal fire being kindled in the furnace, the nozzle H is inserted in the bung-hole of the cask or barrel to be purified, see fig. 1, the spigot-hole being left open.

The blast is then turned on through the tweer D, and acts to drive a body of flame into the barrel, so as, by charring its interior surface, to purify the same of all decaying matters, the fumes of combustion escaping through the spigot-hole, as aforesaid.

Where pitching is resorted to, the pitch may be very thoroughly spread over the interior by our process.

By the use of our device we have been enabled to fire and pitch upward of thirty beer-kegs or barrels per hour.

We are aware that a patent was granted to Holbeck and Gottfried on the 3d of May, 1864, for pitching barrels by the aid of heated air forced into the interior of the barrels by a blast. This, therefore, we do not claim. Our apparatus, though operating on the same general principle as that of Holbeck and Gottfried, is superior to theirs in the facility it affords for applying successive barrels to the nozzle with great ease and rapidity, and at the same time tightly closing the bung-hole, and still protecting the wood from all danger of injury from the heat. This we accomplish by the employment of a conical or tapering nozzle made of two concentric shells, with a body of plaster of Paris, or other non-conducting material, interposed between them.

We claim herein as new and of our invention—

1. The closed charcoal-furnace having the blast D, and one or more nozzles H, for the purpose designated.

2. The mode of firing or pitching casks and barrels, substantially as set forth.

In testimony of which invention we hereunto set our hands.

HERMANN REUTTI.
PHILIPP WINKELHAUS.

Witnesses:

GEO. H. KNIGHT, NICHOLAS ALLSTATTER.