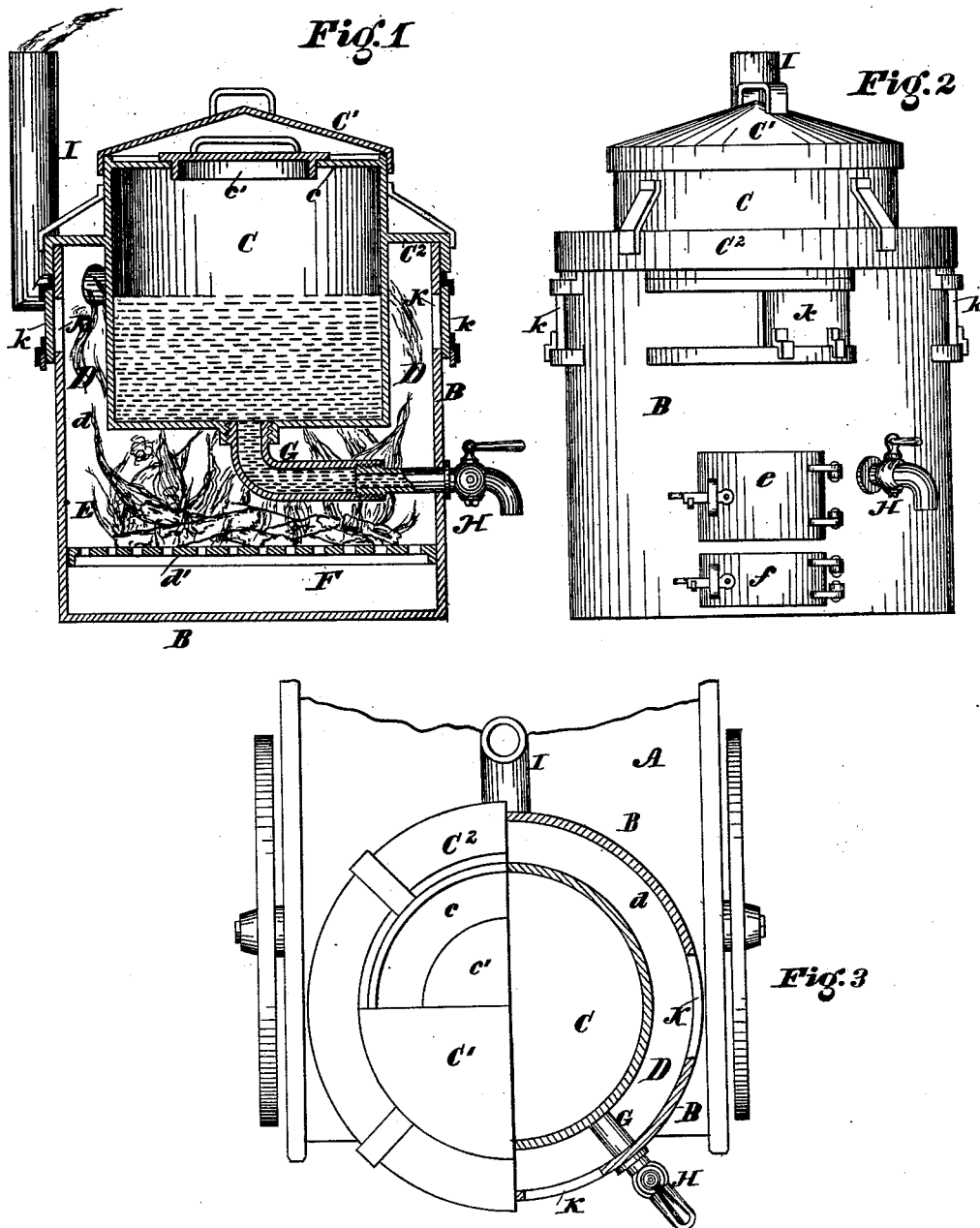


T. McBRIDE.
Portable-Boiler.

No. 218,547.

Patented Aug. 12, 1879.



WITNESSES:
Saml. J. Vandavoren
A Connolly

INVENTOR,
Thomas McBride,
By Connolly Bros.,
ATTORNEYS.

UNITED STATES PATENT OFFICE.

THOMAS McBRIDE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN PORTABLE BOILERS.

Specification forming part of Letters Patent No. **218,547**, dated August 12, 1879; application filed March 26, 1879.

To all whom it may concern:

Be it known that I, THOMAS McBRIDE, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Roofing-Boiler for Melting Tar, Pitch, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a transverse vertical section of my invention; Fig. 2, a side elevation; and Fig. 3, a plan, partly in section, showing the boiler placed in position on a wagon, which is also in plan.

My invention has for its object to provide a portable boiler or melting-pot for tar, pitch, asphaltum, &c.

My improvements consist in the peculiar construction hereinafter described.

Referring to the accompanying drawings, A indicates a wagon or vehicle, upon which is mounted the furnace B. Said furnace contains the melting-pot C, which is formed with an annular flange, *c*, on which rests a flanged lid, *c'*, over which is fitted a slip-top, *C'*, which serves as a protector against rain.

The melting-pot or boiler C is of such a diameter and so arranged as to leave between it and the wall of the furnace a combustion or heat space, D, in which the flames will play and effectively heat said pot, the flue-opening being located near the top of said space, so that the draft will cause the flames to rise.

The jacket extends some distance below the bottom of the pot C, and has a perforated diaphragm or grate, *d'*, forming a fire-box, E, and ash-pit F, with respective doors *e* and *f*.

G is a pipe proceeding from the bottom of the pot C outwardly through the walls of the jacket D, and furnished with a cock, H.

I represents a smoke-pipe, and K K man-holes with sliding doors *k*, whereby access may be had to the sides of the pot to remove soot therefrom.

The operation is as follows: Before starting out in the morning the tar, pitch, asphalt, or other material required for use in roofing, roadway, or other purposes, is placed in the pot C, and a fire is started in the fire-box E. On arrival at the point of operation, if suffi-

ciently distant, the roofing material is melted and in condition for immediate use, thereby obviating the delay and loss of time incident to the usual method of setting up a stationary boiler at the place where the work requires to be done and starting a fire beneath it. The melted material is drawn off through the cock, instead of being ladled out in the usual manner, being a more expeditious and less laborious and wasteful operation than the old method. The jacket D retains the heat around the pot, thereby greatly economizing the fuel required for the boiler.

By locating the pipe G directly over the fire-box the material within it is kept constantly molten while the boiler is in operation, the heat retained within the jacket aiding this result, whereas if no jacket were provided and the pitch, &c., were drawn from the side of the pot, said material would quickly chill and harden and fail to flow through the cock. This construction also serves to prevent the formation of a crust on the bottom of the pot.

I should remark that the boiler or pot C is formed with an external annular flange, *C*², whereby it is supported in position on the jacket D; also, that the mouth of the pot is provided with a wide annular flange, *c*, on which the lid rests, said flange preventing any splashing over of the material in the pot when the boiler is being transported.

What I claim as my invention is—

1. The improved portable boiler for melting tar, pitch, &c., consisting of the furnace B, containing the fire box E and ash-pit F, the melting-pot C, provided with the central draw-off pipe, G, passing through the fire chamber or box and out through the wall of the furnace, the pot C being provided with the flanged rim *C*², resting upon and embracing the jacket B, and the pipe G being furnished with the cock H, all as shown and described.

2. The combination, with the melting-pot C, having flanged mouth *c* and flanged lid *c'*, of the slip-top *C'*, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of March, 1879.

THOMAS McBRIDE.

Witnesses:

GEO. C. SHELMEKDINE,
SAML. J. VAN STAVOREN.