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H. J. WICKHAM, W. L. SHEPARD & F. C. ROCKWELL

COKING RECEPTACLE.

APPLICATION FILED NOV. 16, 1905.

Fig. 1.

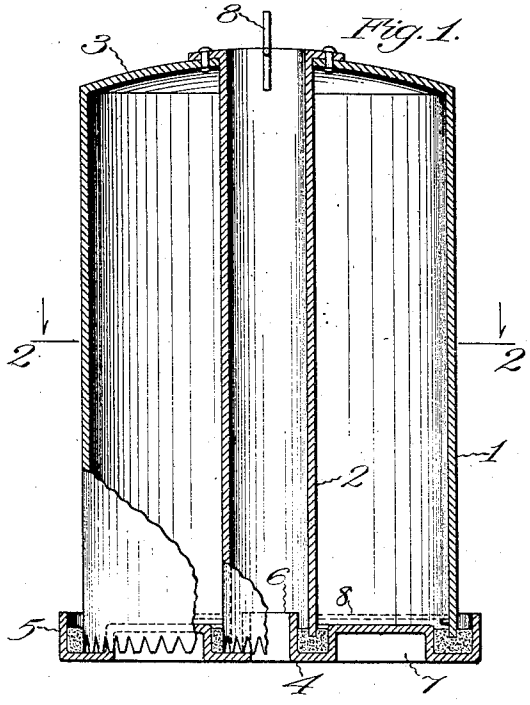
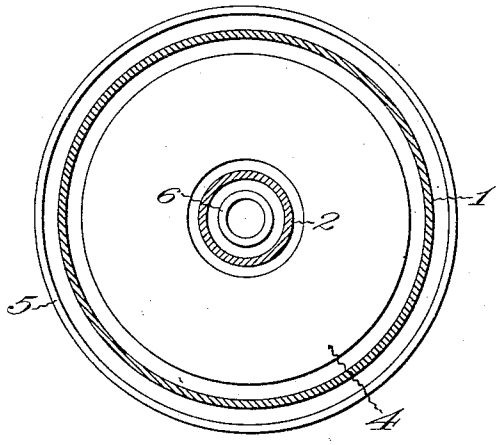


Fig. 2.



Witnesses.
C. F. Storey.
Ethel M. Lowe

Inventors.
Horace J. Wickham
Wilbur L. Shepard &
Frederick C. Rockwell by
Harry R. Williams
Attorney.

UNITED STATES PATENT OFFICE.

HORACE J. WICKHAM, OF MANCHESTER, WILBUR L. SHEPARD, OF ELMWOOD, AND FREDERICK C. ROCKWELL, OF WEST HARTFORD, CONNECTICUT.

COKING-RECEPTACLE.

No. 829,935. Specification of Letters Patent. Patented Aug. 28, 1906.

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To all whom it may concern:

Be it known that we, HORACE J. WICKHAM, residing at Manchester, WILBUR L. SHEPARD, residing at Elmwood, and FREDERICK C. ROCKWELL, residing at West Hartford, in the county of Hartford and State of Connecticut, citizens of the United States, have invented a new and useful Coking-Receptacle, of which the following is a specification.

This invention relates to a receptacle which is designed to receive and to hold blocks of peat while being baked and transformed into coke.

The object of the invention is to provide a receptacle which is simple to construct, easy to handle, and efficient in action, which will hold a large quantity of peat, and which is easily sealed, so that gases evolved by the action of coking can escape and relieve the interior pressure and be utilized for facilitating the process, but flames or gases of combustion cannot enter the receptacle.

Figure 1 of the accompanying drawings shows a central vertical section of a receptacle which embodies the invention. Fig. 2 shows a horizontal section on the plane indicated by the line 2 2 on Fig. 1.

The chamber 1 which is shown is preferably formed of cast-iron having a cylindrical cross-section. Extending down from the top of this chamber is a flue 2, which is preferably located centrally and is circular in cross-section. The flue extends from top to bottom and is open at both ends, but the top of the chamber 3 is tightly closed, except for the flue-opening, so that no gases can escape from the interior. The lower edge of the chamber about the open end is preferably notched.

The base 4, which may be formed of cast-iron, is a little larger in diameter than the exterior diameter of the chamber. Extending upwardly about the periphery of the base is a flange 5. Extending upwardly at the center of the base is a hub 6. This hub is somewhat smaller in diameter than the interior diameter of the flue through the chamber. There is no opening through the bottom of the base except through the hub. The bottom of the base may be recessed, as at 7. If the bottom is recessed, as shown, two circular troughs are formed, the outer of which is of sufficient size to receive the lower edge of the chamber and the inner of which is of sufficient size to receive the lower edge of the flue through the chamber. These troughs contain a granular substance, such as sand, and after the chamber has been filled with blocks of dried peat its lower edge is worked down into the granular material, so that this material will pack the joint between the lower edge of the chamber and lower edge of the flue and the bottom of the base.

Peat which has been pressed into blocks of the desired shape and size are placed in the chamber, and after it has been filled the chamber, if the top is not removable, is turned over and its lower edge worked down into the granular material in the base. A screen or grate 8 may be secured in the chamber near the open end to prevent the blocks from falling out when the receptacle is turned over. In practice a number of these receptacles after being filled with peat are moved into a furnace and subjected to the action of a hot fire. The heat from the fire passes up around the outsides and through the flues, and the gases which are generated in the interior are expelled through the granular material and rise about the outside and in the flue. These gases take fire, and their combustion aids in heating the receptacle and coking the peat.

The gases generated by the heat when under sufficient pressure escape through the sealing material; but the products of combustion or the flames cannot enter into the interior of the receptacle, nor when the receptacle has been removed from the furnace and is still very hot can sufficient oxygen enter into the receptacle to cause the combustion of the peat.

With a single flue the efficiency of the device is increased and the product produced is rendered more uniform, for the heat from the furnace affects the center of the mass in the receptacle as well as the outsides. If desired, the chamber may be provided with more than one flue, and for the purpose of regulating the flow of heat through the flue a damper or baffle-plate 8 may be arranged at the top.

The invention claimed is—

1. A coking-receptacle consisting of a chamber having closed top and side walls, a flue open at both ends extending through the top of the chamber, a base supporting the chamber, a flange extending upwardly from

the base outside of the chamber, a hollow hub extending upwardly from the bottom of the base into the flue, and granular sealing material contained in the base, substantially as specified.

2. A coking-receptacle consisting of a chamber having a flue extending therethrough and open at the top and bottom, a base supporting the chamber and having a trough near its periphery for receiving the lower edge of the chamber and a trough near its center for receiving the lower edge of the flue, and granular sealing material contained in the troughs, substantially as specified.

3. A coking-receptacle consisting of a chamber having tight top and side walls, a flue extending through the chamber and opening through the top, and a base having an upright flange outside of the chamber and a hollow upright hub inside of the flue, substantially as specified.

HORACE J. WICKHAM.
WILBUR L. SHEPARD.
FREDERICK C. ROCKWELL.

Witnesses:
HARRY R. WILLIAMS,
ETHEL M. LOWE.