(No Model.)

T. POWER.

STOVE DRUM AND DAMPER FOR THE SAME.

No. 458,488. Patented Aug. 25, 1891.

Fig. 1.

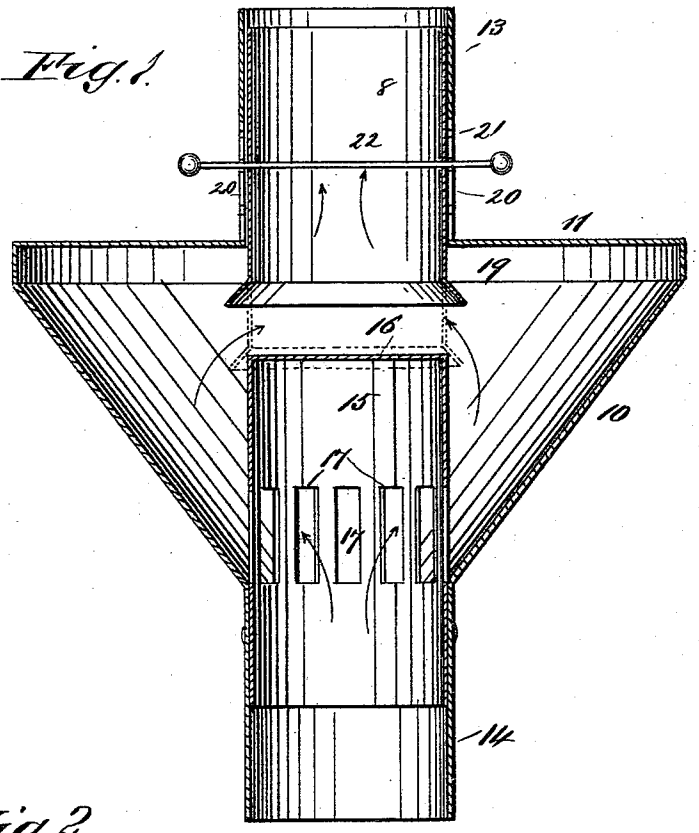
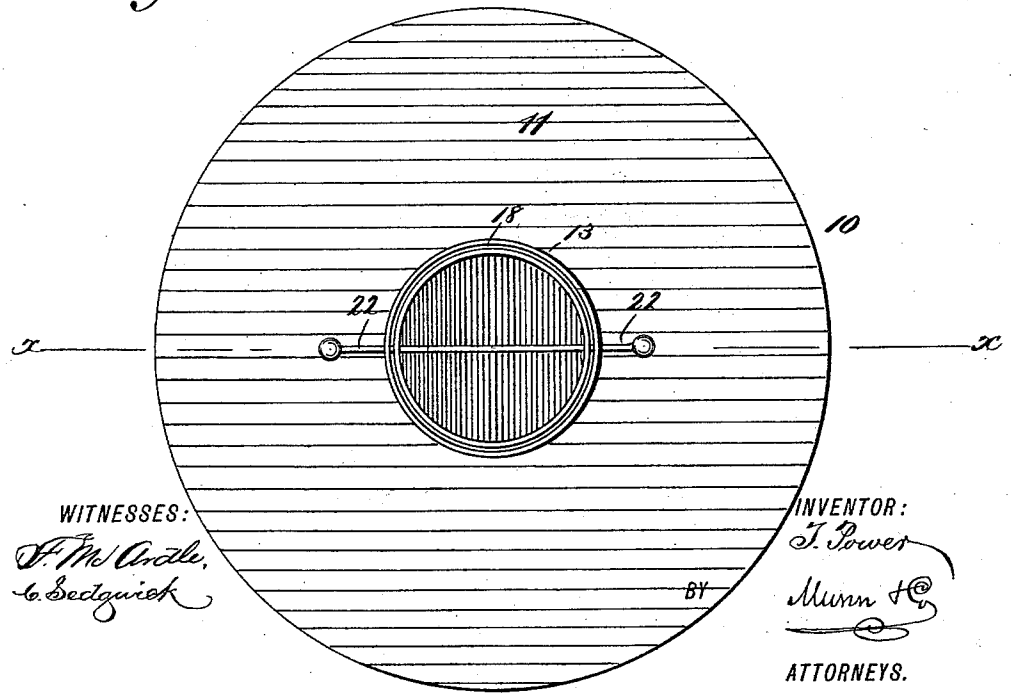


Fig. 2.



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UNITED STATES PATENT OFFICE.

THOMAS POWER, OF PORTLAND, NORTH DAKOTA.

STOVE-DRUM AND DAMPER FOR THE SAME.

SPECIFICATION forming part of Letters Patent No. 458,488, dated August 25, 1891.

Application filed November 4, 1889. Serial No. 329,122. (No model.)

To all whom it may concern:

Be it known that I, THOMAS POWER, of Portland, in the county of Traill and State of North Dakota, have invented a new and useful Improvement in Stove-Drums and Dampers for the Same, of which the following is a full, clear, and exact description.

My invention relates to an improvement in stove-drums and dampers for the same, and has for its object to provide a drum capable of ready attachment to any ordinary stove, whereby the draft will be under complete control and a chamber formed for the retention of hot air; and a further object of the invention is to provide a drum capable of attachment to a stove-pipe which will economize in the fuel, and when used in connection with a cooking-stove may be utilized for warming and cooking various articles of food, thereby adding to the cooking capacity of the stove without materially adding to the cost.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter more fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in both the views.

Figure 1 is a central vertical section through the drum and sections of pipe attached thereto, taken on line *x x* of Fig. 2; and Fig. 2 is a plan view of the drum.

The drum 10 is constructed of any suitable or approved material—for instance, sheet-iron—and is preferably made to resemble in contour an inverted cone, as illustrated in Fig. 1. The upper face 11 of the drum is provided with a central aperture, around which aperture the lower end of a section of pipe 13 is secured in any suitable or approved manner, which pipe is adapted to project vertically upward. In the contracted end of the drum, which is the lower end, another aperture is made corresponding in area with and vertically aligning the upper aperture, and a second pipe-section 14 is secured to the wall of the lower aperture, projecting vertically downward. If, however, it is found desirable in practice, the lower pipe-section 14 may constitute an integral portion of the drum. Within the lower pipe-section 14 the lower end of a tube 15 is secured, which tube extends upward within the drum to a point near the top. The upper end of the tube 15 is sealed by a cap-plate 16, and below the cap-plate, within the drum, the said tube is provided with a series of longitudinal openings 17, as best illustrated in Fig. 1. Within the upper pipe-section 13 a second cylindrical pipe or tube 18 is held to slide, the inner pipe being made to fit to the inner contour of the outer pipe in such manner as to bind closely and yet be capable of comparatively easy vertical adjustment. The lower end of the inner pipe 18 is provided with an outwardly-flaring flange 19, which when the pipe is lowered will engage with the periphery of the cap-plate 16 of the tube 15, as shown in dotted lines in Fig. 1, and effectually prevent any products of combustion which may pass through the lower pipe-section 14 and through the opening 17 into the drum from finding an exit from the latter, and as the inner pipe 15, which for convenience I denominate a "tubular damper," is capable of vertical adjustment the space between the upper cap-surface of the tube 15 and the lower end of the damper may be regulated at will to permit more or less of the products of combustion to pass upward and out through the upper pipe-section 13.

In order to conveniently manipulate the sliding damper 18, longitudinal slots 20 are produced in opposite sides of the upper pipe-section 13, one perpendicular wall of which slots is provided with notches or recesses 21, adapted to receive a bar 22, which bar is rigidly attached to the tubular chamber and projects outward through the slots 20 in the outer pipe-section, terminating in suitable handles. Thus in raising and lowering the tubular chamber it may be held at any desired elevation above the inner tube 15 by introducing the bar 22 into any one of the recesses 21.

In constructing the drum I prefer to make it about twenty-four inches long, or just about the length of one joint of stove-pipe, and it is placed in position upon the stove, preferably, by taking off the lower joint of pipe that bears against the stove-collar and replacing it with the drum.

It is obvious that when the tubular chamber is brought down to a contact with the capped tube 15 the products of combustion passing

upward from the stove and out through the opening 17 into the drum cannot escape from the latter, and that the heat thus confined will be radiated by the drum into the room; also, that any vessel placed upon the upper flat face of the drum may be effectually heated. It is further obvious that by adjusting the tubular damper downward close to the capped tube 15, yet slightly above the same, the products of combustion will pass but slowly from the drum out through the upper pipe-section 13. Thus the heat which would otherwise escape up the chimney is retained long enough in the drum to be utilized as desired. If a quick draft is necessary, the sliding damper is elevated to its highest position.

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

1. The combination, with a drum and pipe-sections secured thereto, of a slotted tube having a closed upper end secured in the lower pipe-section and projecting upward within the drum and a tube fitted in the upper pipe-section and adjustable to and from the closed upper end of the tube in the lower pipe-section, substantially as and for the purpose set forth.

2. The combination, with an upper and lower pipe-section and a drum provided with central aligning openings intervening the said pipe-sections and attached thereto, the interior of the drum communicating with the said sections, of a capped and slotted tube secured in the lower pipe-section and extending upward within the drum, and a tubular damper vertically adjustable within the upper pipe-section to and from the cap-tube and provided with a flaring lower extremity, substantially as shown and described.

3. The combination, with upper and lower pipe-sections, the upper pipe-section provided with a slot in opposite sides, in one wall of which slots recesses are formed, and a drum having a central top and bottom opening intervening the pipe-sections and attached thereto, the said openings leading, respectively, into the upper and lower pipe-sections, of a capped and slotted tube secured in the lower pipe-section and projecting upward in the drum, a tubular damper vertically adjustable in the upper pipe-section, and a rod secured to the said damper, passing outward through the slots in the upper section, and adapted to engage with any one of the wall-recesses, all combined for operation substantially as and for the purpose specified.

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