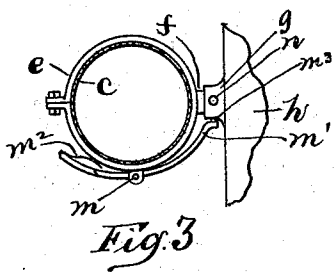
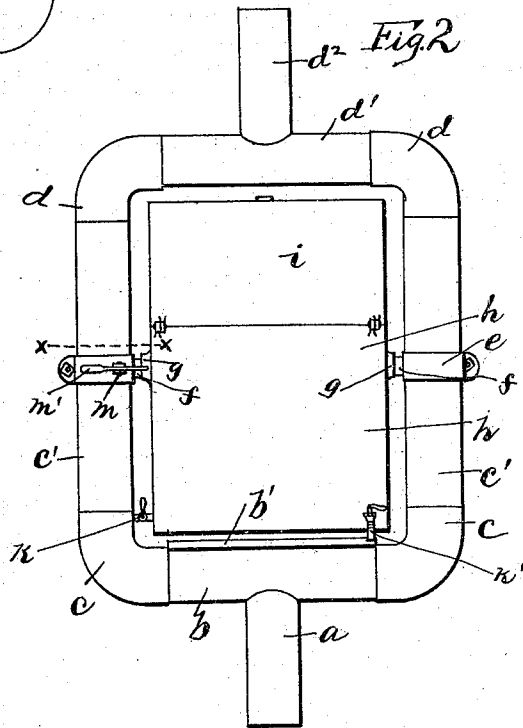
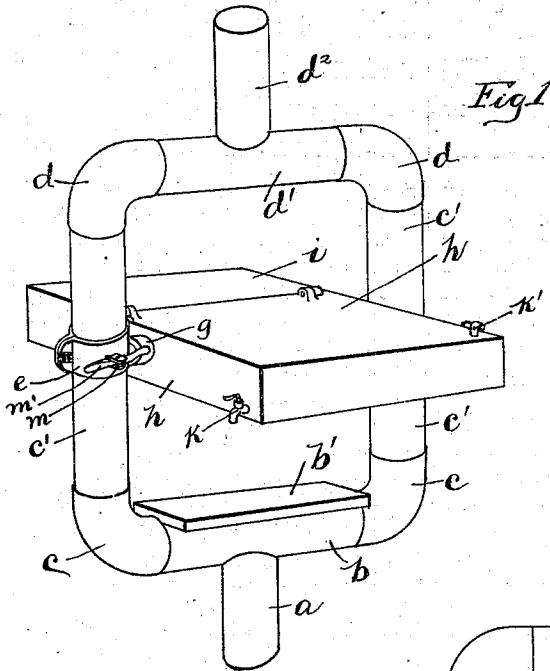


(No Model.)

G. W. HOWARD.
HEATING DEVICE.

No. 550,617.

Patented Dec. 3, 1895.



WITNESSES:

H. B. Bradshaw
A. L. Phelps

INVENTOR

—Gabriel W. Howard—

BY

Staley & Shepherd
ATTORNEYS.

UNITED STATES PATENT OFFICE.

GABRIEL W. HOWARD, OF FULTON, OHIO.

HEATING DEVICE.

SPECIFICATION forming part of Letters Patent No. 550,617, dated December 3, 1895.

Application filed March 12, 1894. Serial No. 503,264. (No model.)

To all whom it may concern:

Be it known that I, GABRIEL W. HOWARD, a citizen of the United States, residing at Fulton, in the county of Morrow and State of Ohio, have invented a certain new and useful Improvement in Water and Dish Heating Attachments for Stovepipes, of which the following is a specification.

My invention relates to an improvement in heater attachments for stovepipes; and the objects of my invention are to form with the smoke and heat conducting pipe of a stove a heating device of superior construction and arrangement, by means of which the waste heat which ordinarily passes upward with the smoke may be utilized, to provide said heater with a warming-shelf, to combine with said heater a rotary reservoir, and to produce other improvements in details of construction which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of my improved heating device, shown connected with a stovepipe and showing the reservoir supported in a horizontal position. Fig. 2 is a view in elevation of the same, showing the reservoir swung to a vertical position; and Fig. 3 is an enlarged transverse section on line *x x* of Fig. 2.

Similar letters refer to similar parts throughout the several views.

a represents a vertical section of stovepipe, which rises in the usual manner from a stove and which communicates at its upper end with the central portion of a short horizontal pipe-section *b*, the latter having supported upon its upper side, in a longitudinal position, a horizontal warming plate or shelf *b'*. The ends of the horizontal pipe *b* are, through the medium of upturned elbows *c*, connected with the lower ends of parallel and vertical heater-pipes *c'*, while the upper ends of the latter are, through the medium of inturned elbows *d*, connected with the ends of an upper horizontal pipe-section *d'*, which is parallel with the pipe-section *b*. From the center of the length of this pipe-section *d'* leads upward a continuation of the stovepipe, as indicated at *d''*. In this manner a substan-

tially-rectangular pipe-frame is made to communicate with and intersect the ordinary stovepipe.

About each of the pipe-sections *c'* at the center of its length I secure a band or collar, (indicated at *e*,) the latter having formed on its inner side an inwardly-projecting pin or trunnion *f*. These pins or trunnions *f* are journaled, as shown, in oppositely-located socket projections *g*, which are formed on the sides of an oblong reservoir-case *h*, which is thus swung between the vertical pipes *c'*. In one face of this reservoir *h*, which is the upper face thereof when said reservoir is in a horizontal position, I provide a hinged door or lid, (indicated at *i*,) said door being arranged, as shown, in the upper portion of the reservoir when the latter is supported in a vertical position. In the opposite end of the reservoir I provide on one side thereof a laterally-projecting faucet or stop-cock *k*, and on the upper face of the reservoir in transverse alignment with the faucet *k* I provide a similar faucet *k'*.

To the outer side of one of the pipe-bands *e* I fulcrum, as indicated at *m*, a latch-arm *m'*, the outer projecting end portion of this latch-arm being normally pressed outward by a suitable spring *m''*, arranged between said latch-arm and the collar *e*. The inner projecting end of this latch-arm is provided with a projecting stud *m'''*, which is adapted to engage with the desired one of two openings *n*, formed at separated points in the side of the socket-piece *g*, said latch-arm being retained in engagement with said socket-piece by means of the spring *m''*.

Owing to the above-described method of latching the reservoir into connection with the vertical side pipe-sections, it will be seen that said reservoir may be retained in the horizontal position shown in Fig. 1 of the drawings or in the vertical position shown in Fig. 2, said reservoir being adapted to swing on the trunnions *f* within the rectangular heating-pipe frame.

The faucet *f* may be employed for drawing water from the reservoir when the latter is in the horizontal position, while the faucet *k'* may be employed for a similar purpose when said reservoir is in the vertical position.

From the construction which I have herein shown and described it will be seen that the reservoir is not only so supported as to result in the water therein becoming heated, but
 5 that when supported in a horizontal position, as indicated in Fig. 1 of the drawings, the upper side of said reservoir affords a support for and means of warming dishes or other similar articles. The employment of the pipe-
 10 heating frame affords a substantial increase in the pipe-surface, thus providing for a corresponding increase in the radiation of heat, which assists in heating the water contained in the reservoir. Owing to the angular ar-
 15 rangement of the horizontal and vertical pipe-sections forming the heating device, it will be seen that the draft will be sufficiently retarded to prevent any great portion of the heat from escaping with the smoke through
 20 the pipe *d*².

It is evident that the shelf *b'* will also be of great utility for the heating of plates or dishes and in keeping their contents warm.

It will be observed that the construction of
 25 my device is simple and inexpensive, and that

the same may be applied to any ordinary form of stovepipe.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a water and dish heating attachment for stove pipes, the combination with a stove pipe, a substantially rectangular pipe frame intersecting and communicating with said stove pipe, trunnions *f* projecting from the
 35 vertical arms of said pipe frame and a spring actuated latch piece pivotally supported from one of said pipe frame arms, said latch piece having a stud projecting from its inner end, of a reservoir case having socket projections
 40 on opposite sides into which said pipe arm trunnions are adapted to fit loosely and peripheral sockets *n* in one of said reservoir socket pieces with which the stud of said
 45 latch piece is adapted to engage, substantially as and for the purpose specified.

GABRIEL W. HOWARD.

In presence of—

C. C. SHEPHERD,
 F. A. SIEGEL.