

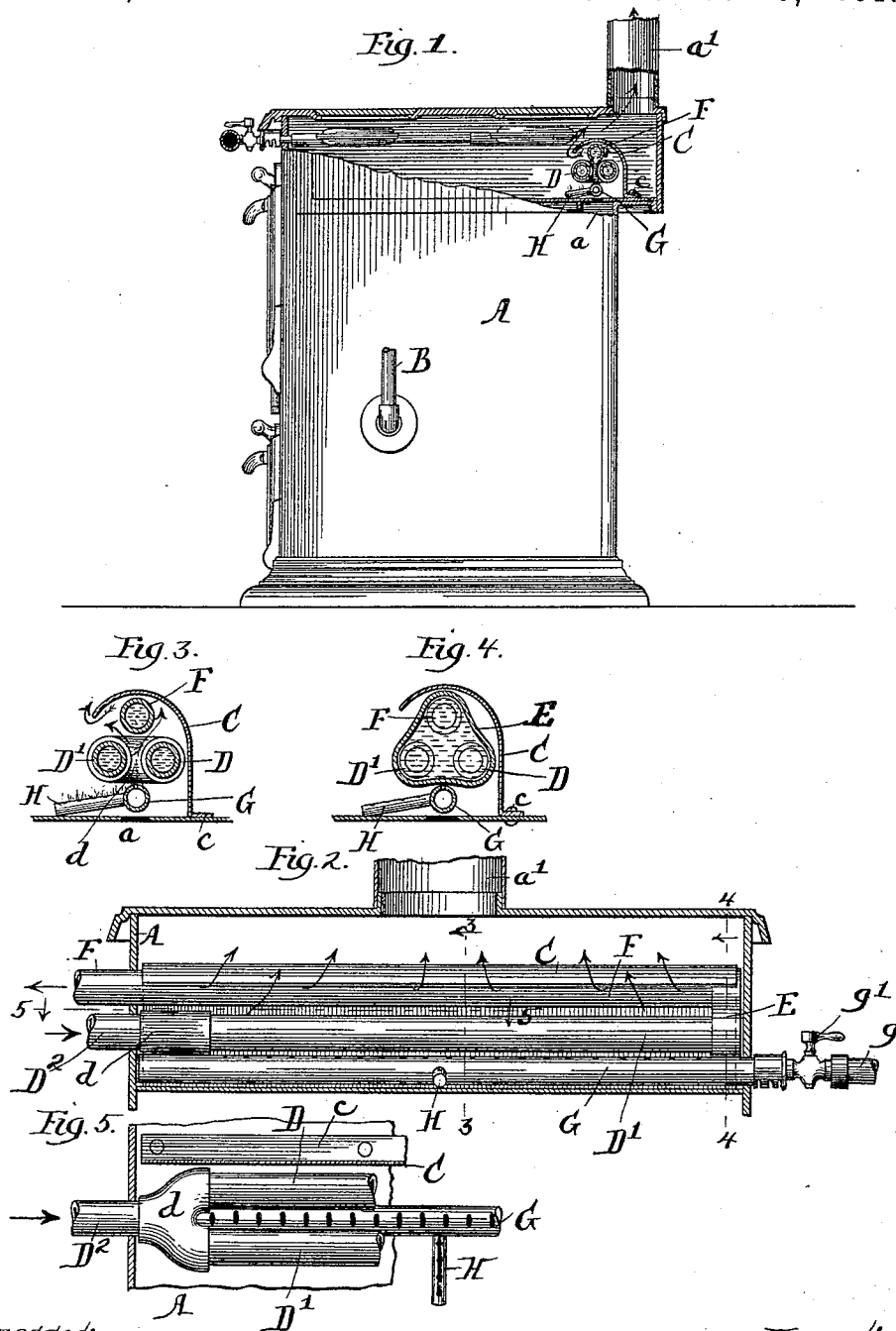
(No Model.)

C. J. EDMONDS & A. C. MASON.

WATER HEATER FOR GAS OR VAPOR STOVES.

No. 460,703.

Patented Oct. 6, 1891.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES J. EDMONDS AND ALVIN C. MASON, OF CHICAGO, ILLINOIS,
ASSIGNORS TO THE MASON & DAVIS COMPANY, OF SAME PLACE.

WATER-HEATER FOR GAS OR VAPOR STOVES.

SPECIFICATION forming part of Letters Patent No. 460,703, dated October 6, 1891.

Application filed February 5, 1891. Serial No. 380,262. (No model.)

To all whom it may concern:

Be it known that we, CHARLES J. EDMONDS and ALVIN C. MASON, residents of Chicago, in the State of Illinois, respectively, have invented certain new and useful Improvements in Water-Heaters for Gas or Vapor Stoves, of which we do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming
10 part of this specification.

Our present invention has for its object to provide a gas-stove with improved means for heating water for laundry or other purposes; and to this end our invention consists in the
15 novel features of construction hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the claims at the end of this specification.

Figure 1 is a view in side elevation of a gas-stove embodying our invention, parts being broken away for better illustration. Fig. 2 is an enlarged view in vertical longitudinal section through the upper portion of the stove, the water-heating devices being shown in ele-
25 vation. Fig. 3 is a view in vertical transverse section on line 3 3 of Fig. 2. Fig. 4 is a view in vertical transverse section on line 4 4 of Fig. 2. Fig. 5 is a view in longitudinal section on line 5 5 of Fig. 2.

A designates the main body of the stove, which may be of usual construction, being provided with a suitable pipe B for supplying gas to the usual burners within the body of the stove, the products of combustion from such
30 burners passing from the body of the stove through a suitable discharge-opening *a* at its upper rear portion, and thence through a pipe *a'*, that leads to the chimney-flue, as is well understood by those familiar with this class of
35 devices. Above the discharge-opening *a* for the main products of combustion is placed a deflecting-hood C, that extends across the stove, being conveniently bolted to the stove-body, as at *c*, and beneath this deflecting-hood
40 C are set the circulating-pipes, through which will pass the water to be heated. In the preferred form of our invention these pipes consist of the two lower pipes D and D', united together at one end by a coupling *d*, to which
45 connects the main delivery-pipe D², and

united together at the opposite end by a hollow coupling or casting E, to which is connected, also, the discharge-pipe F, that leads from the stove to a suitable boiler. (Not shown.) The pipes D and D' are separated a slight distance from each other, and the pipe F extends above the space between these pipes D and D'. Beneath the space between the pipes D and D' extends the burner-pipe G, the supply of gas being delivered to this pipe by a
50 suitable pipe *g*, controlled by a cock *g'*. In order to enable the gas passing from the burner-pipe G to be readily ignited, I provide this pipe with a forward extension H, provided with a long slit or perforations, so
55 that when it is desired to ignite the gas it is only necessary to touch a match to the gas issuing from the forward end of the pipe H, and the ignition of the gas at such point will be readily communicated to the escaping gas
60 throughout the entire length of the burner-pipe G. By locating the burner-pipe G and the water-heating pipes above the discharge-passage *a* for the products of combustion from the main body of the stove not only is
65 the heat from the main products of combustion utilized in warming the water within the water-pipes, but an increased draft is given to the flame of the burner-pipe G, thereby creating a greater heat about the water-pipes. 80
Moreover, by providing the hood C the heat is caused to better circulate about the water-pipes, instead of passing directly away therefrom, as would be the case if no such deflector were employed. 85

Our invention is not to be understood as restricted to the precise details of construction above set out, as variations from such details will readily suggest themselves to the skilled
90 mechanic.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A water-heater for gas-stoves, comprising water-circulating pipes D, D', and F, arranged as shown—that is to say, with the
95 pipes D and D' separate from each other and with the pipe F arranged above the space between the pipes D and D'—a gas-burner pipe located beneath the space between the pipes 100

D and D' and beneath the pipe F, and a deflecting-hood C, arranged above said circulating-pipes, substantially as described.

5 2. A water-heater for gas-stoves, comprising water-circulating pipes arranged above the discharge-opening for the products of combustion of the stove, and a gas-burner arranged beneath said water-circulating pipes, substantially as described.

10 3. A water-heater for gas-stoves, comprising a series of water-circulating pipes D, D', and F, arranged above the discharge-passage

for the products of combustion, a deflecting-hood C above said water-circulating pipes, and a gas-burner pipe G beneath said water-circulating pipes and above said discharge-passage for the products of combustion, substantially as described. 15

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