

W. J. GURD.

AUTOMATIC LIGHTER FOR GAS STOVES.

No. 555,765.

Patented Mar. 3, 1896.

Fig. 1.

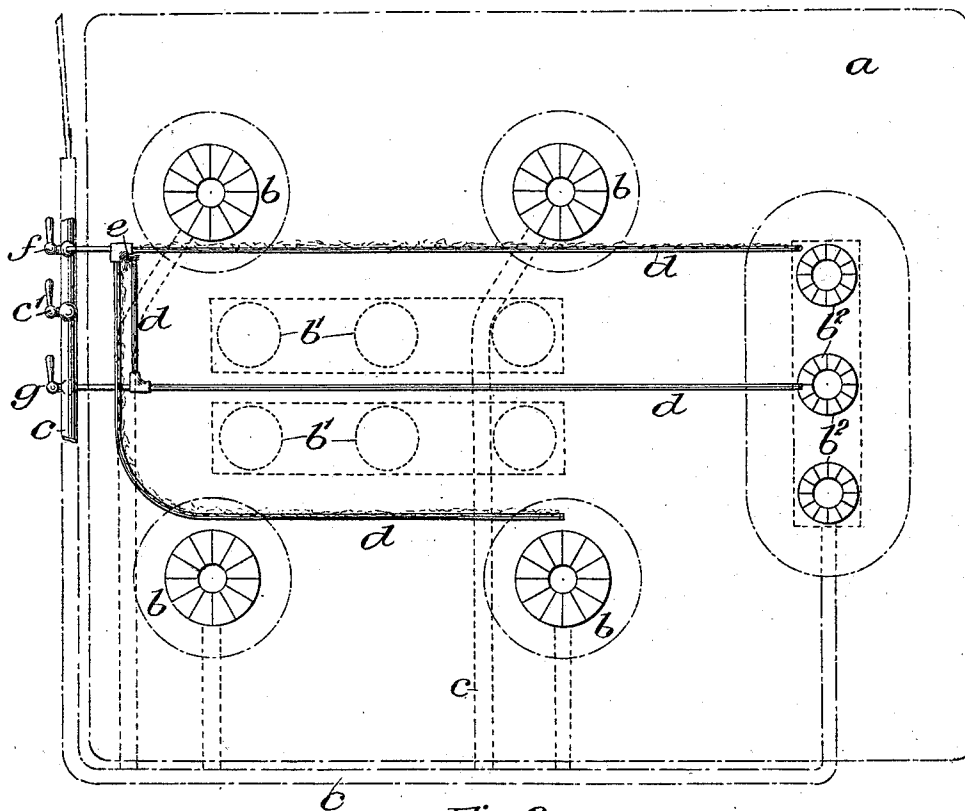
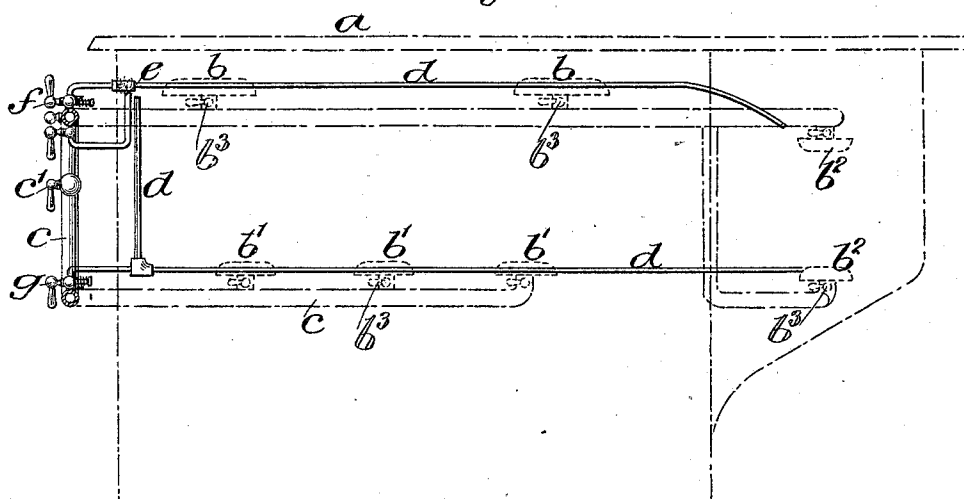


Fig. 2.



Witnesses:-

A. L. Hayes.

Chas. W. Dane

Inventor:-

William J. Gurd

By Chas. F. Dane

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Fig. 3.

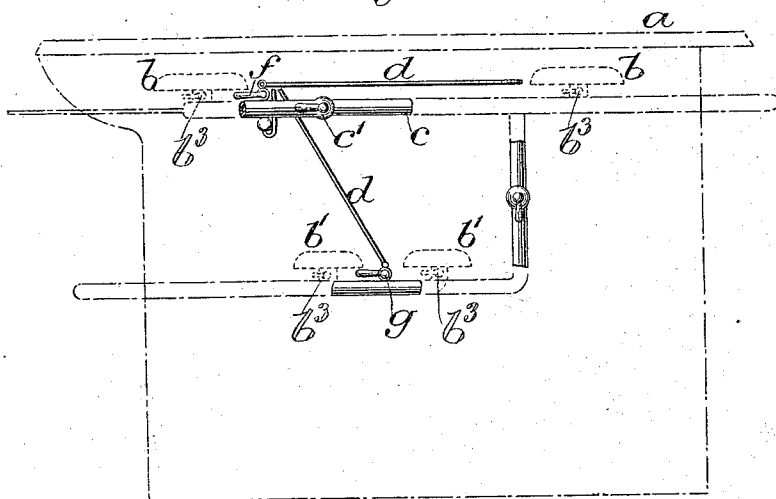


Fig. 4.

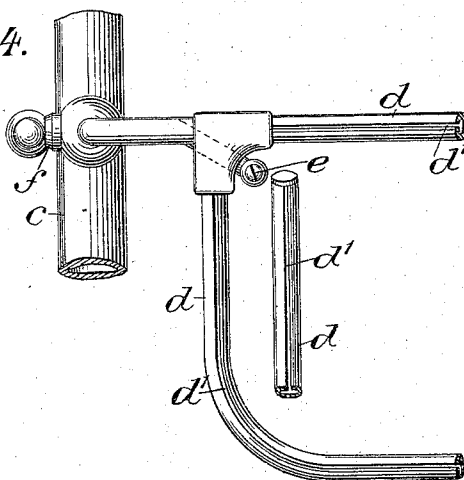


Fig. 6.

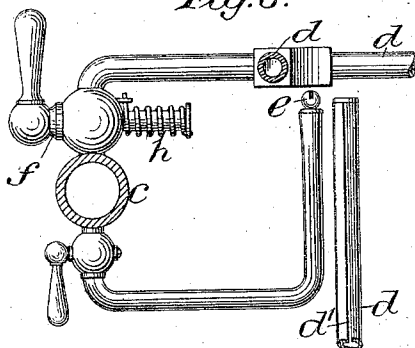
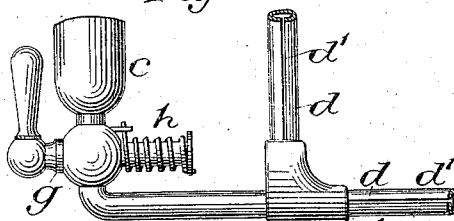


Fig. 5.



Witnesses:-
A. L. Hayes.
Fred W. Dime

Inventor:-
William J. Gurd
By Chas. F. Dime
att'y

UNITED STATES PATENT OFFICE.

WILLIAM J. GURD, OF LONDON, CANADA.

AUTOMATIC LIGHTER FOR GAS-STOVES.

SPECIFICATION forming part of Letters Patent No. 555,765, dated March 3, 1896.

Application filed March 15, 1895. Serial No. 542,327. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. GURD, a subject of the Queen of England, and a resident of London, Province of Ontario, Dominion of Canada, have invented a new and useful Automatic Lighter for Gas-Stoves, of which the following description, taken in connection with the drawings herewith accompanying, is a specification.

10 This invention relates to gas-stoves, and particularly to the means for lighting the several burners with which they are provided for supplying the heat, the object of my invention being to provide means whereby one
15 or more of the several burners, or series of burners, located at different points throughout the stove, may be automatically lighted from one point by a suitable controlling device or valve. This object I secure by means
20 of the construction and combination of the several parts hereinafter set forth in detail and pointed out in the claims.

Referring to the drawings, Figure 1 is a plan view of a stove provided with my automatic
25 lighting device, the stove, with the exception of the burners, being shown in dotted outline only in order to more clearly show the arrangement of the lighting device in combination with the several burners with which the
30 stove is provided. Fig. 2 is a side view of the same, showing the upper and lower range or series of burners; Fig. 3, an end view; and Figs. 4, 5, and 6, enlarged detail views of the several parts to be hereinafter referred to.

35 To explain in detail, *a* represents the outline of the stove proper, which, in the present instance shown, is provided with an upper range of burners *b*, a series of oven-burners *b'*, and a series of warming-oven burners *b''*,
40 all being adapted for heating like-named compartments or parts with which such stoves are usually provided. These burners are all connected with a supply-pipe *c* through which the gas is supplied to the same, which said
45 pipe is provided with a valve or cock *c'* by which the supply is regulated. Each of the burners is also provided with a valve, as at *b''*. The parts above referred to are of usual construction and not of my present invention.

50 According to my invention I provide a tube or system of tubes *d*, termed the "lighter-

tubes," which have connection with the supply-pipe *c* and extend throughout the stove in a position close or adjacent to the several burners or series of burners in a manner as
55 clearly illustrated in the drawings. These tubes, in the present instance shown, are provided with a continuous longitudinal slit or opening *d'* of such size as to admit a slight
60 escape of gas along the tube, which, when ignited at any point, causes a flash or streak of flame along the entire tube, or such portion
65 of the system of tubes as may be supplied with gas, and thus automatically lights such of the several burners located adjacent to or in contact with the same as may be supplied with
70 gas, it being understood that the gas is supplied to the burners preliminary to the lighting of the lighter-tubes, as described.

In order that the escaping gas from the
75 lighter-tubes may be ignited automatically, and also immediately upon such escape of the gas after the tubes have been supplied, in order to prevent waste of the same, I provide a
80 burner *e*, which is supplied from the pipe *c* and is adapted to carry a permanent light, termed the "pilot-light," with which latter the entire system of lighter-tubes has communication in such manner that the gas from
85 all or only a portion of the same, as may be desired, may be ignited, and thus light one or
90 all of the several series of burners.

The supply of gas to the lighter-tubes, in the present instance shown, is regulated by
85 two valves *f* and *g*, the valve *f* controlling the supply to the lighter-tubes for the upper range of burners and the valve *g* for the lighter-tubes of the lower range of burners. When one of
90 these valves—the valve *f*, as an instance—is opened to supply the lighter-tube, the escaping gas, coming in contact with the adjacent pilot-light *e*, ignites and instantly flashes
95 along the entire length of the slit in the lighter-tube, in a manner as clearly shown in Fig. 1 and for the purpose hereinbefore set forth. It will thus be understood that by simply
100 opening either one or both of the valves *f* and *g* either one or both of the upper and lower range of burners may be lighted accordingly.

The valves *f* and *g* are adapted to be automatically returned to a normal closed position
after the operator has opened and released

the same by means of a spring *h* located and acting on a projecting stem of said valves, as clearly shown in Figs. 5 and 6.

It will be understood that the pilot-light, to perform its function, may be a mere spark of flame, and therefore the cost of continuing the same would be but slight, while the many advantages secured by enabling the burners of the entire stove, or such portion of them as may be desired, to be lighted at any time without other act or operation than the simple turning or opening of a valve, as before described, will be obvious.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a gas-stove, the combination with the regular service-burners, each being provided with a valve, of a lighter-tube provided with means for the escape of gas along its entire length and lying contiguous to said service-burners, a pilot-burner located adjacent to

said lighter-tube, and means for controlling the supply of gas to the lighter-tube, said parts being arranged and operating, substantially as described and for the purpose set forth.

2. In a gas-stove, the combination with the regular service-burners, each being provided with a valve, of a lighter-tube provided with means for the escape of gas along its entire length and lying contiguous to said service-burners, a pilot-burner located adjacent to said lighter-tube so that its flame will ignite the gas issuing from the latter for the purpose set forth, and a spring-controlled valve for regulating the supply of gas to the lighter-tube, substantially as described and for the purpose set forth.

WILLIAM J. GURD.

Witnesses:

CHAS. W. HARWOOD,
CHAS. H. IVEY.