

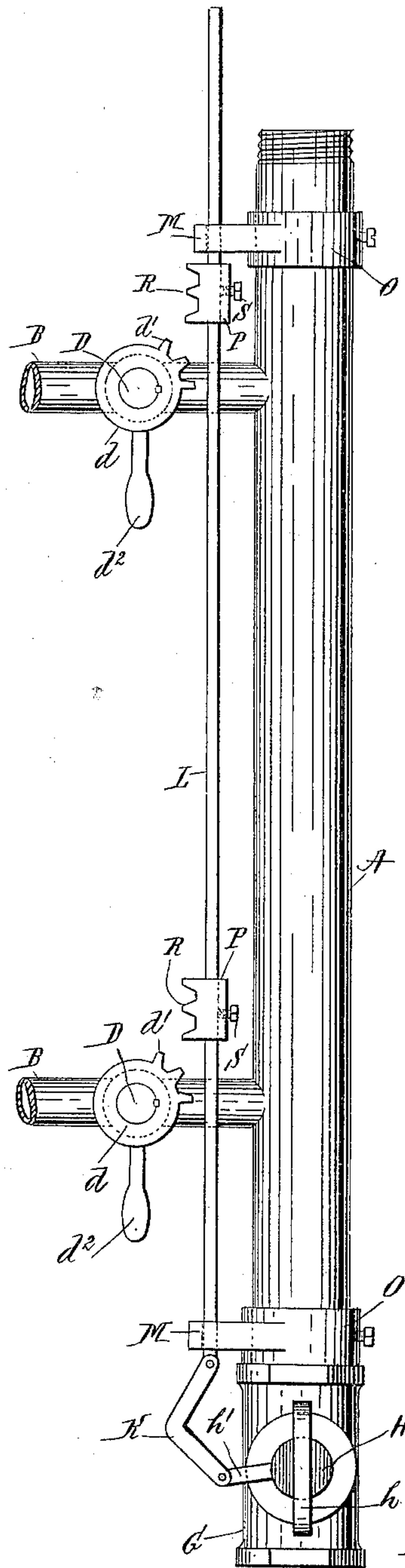
(No Model.)

W. DE FREITAS.

SAFETY ATTACHMENT FOR GAS STOVES OR RANGES.

No. 599,283.

Patented Feb. 15, 1898.



WITNESSES:

John Buckler,
C. G. Foster.

INVENTOR

William De Freitas.

BY

Edgar Tate & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM DE FREITAS, OF NEW YORK, N. Y.

SAFETY ATTACHMENT FOR GAS STOVES OR RANGES.

SPECIFICATION forming part of Letters Patent No. 599,283, dated February 15, 1898.

Application filed October 18, 1895. Serial No. 566,071. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM DE FREITAS, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Safety Attachments for Gas Stoves or Ranges, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof, in which similar letters of reference indicate corresponding parts.

My invention has reference to safety attachments for gas stoves or ranges, and is especially applicable to gas-ranges wherein the gas is conducted to a plurality of confined oven-burners controlled by branch valves and also to unconfined surface burners at the top of the range. It will be readily understood that if it is neglected to turn off the valves of the oven-burners when the supply-valve is closed and the supply-valve is subsequently opened to admit gas to the surface burners for ordinary cooking the gas escaping from the oven-burners and mixed with air in explosive proportions fills the oven and is very liable to be ignited and cause dangerous explosions. The object of my invention is to render such explosions impossible, and to this end I so connect the supply-valve with the valve or valves of the branch pipe or pipes leading to the oven-burners that when the supply-valve is closed the valve or valves in the branch pipe or pipes are simultaneously closed, and when the supply-valve is opened said valve or valves of the branch pipe or pipes remain closed.

My invention is also applicable to gas-stoves—that is, cooking or heating stoves not provided with ovens—and when so applied acts to prevent the escape of gas in case one of the branch valves should inadvertently be left open.

My invention consists in the combination of a feed-pipe, branch pipes communicating therewith, a valve in the feed-pipe, valves in the branch pipes, and means for actuating all the valves when the valve in the feed-pipe is closed, so that they will all close together, said means being in permanent engagement with the feed-pipe valve and adapted to become disengaged from the branch-pipe valves when the feed-pipe valve is opened.

The nature of my invention will best be understood when described in connection with the accompanying drawing, which illustrates a plan or top view of my attachment. 55

Referring to the drawing, the letter A designates the feed-pipe of a gas stove or range. In gas-stoves this feed-pipe is usually arranged in a horizontal position across the front of the stove and connected by branch pipes to the several surface burners, while in gas-ranges it is arranged along one side of the range just below the bottom of the oven and connected by branch pipes with the oven-burners and with the surface burners. 60 65

I will now proceed to describe my invention as if applied to a gas-range. In this instance the branch pipes B are led to the oven-burners (not shown) in the usual manner and each is provided with a valve D. These valves instead of being constructed as usual are provided each with a circular head d , formed thereon, and on the peripheries of said heads are formed teeth d' , adapted to engage with teeth or projections R, formed on blocks P, secured to a rod L, which is mounted to slide in lugs or bearings M, attached to collars O, mounted on the supply-pipe A and held by suitable set-screws. Each of the valves is provided with a handle d^2 , by which it can be turned to open the passage through the respective branch pipe B. The supply-valve H is connected to one end of the feed-pipe A, as usual, and said valve is provided with a head h for turning the same to open and close the supply of gas and with an arm h' , to which is pivotally connected a bent lever K, having its other end pivotally connected to the end of the sliding rod L. 70 75 80 85 90

The blocks P on the sliding rod L are arranged adjacent to the heads d of the valves D in the branch pipe, and their position may be adjusted as required by set-screws s .

The valves D in the branch pipe B are limited to turn in a quadrant by the employment of usual stops, and the teeth thereon are so located with respect to the teeth on the blocks P that when the valves are closed the blocks can freely pass the valves when moved in either direction; but when the valves are open and the supply-valve H is turned to close off the supply of gas the said valves are engaged by the said blocks and turned through a 95 100

quadrant, thereby closing the same. If the supply-valve H is closed and any one of the branch valves D open, the supply-valve cannot be opened, for the reason that the end tooth of the corresponding block P will strike against the end tooth on the open valve D. When the supply-valve is fully opened, the blocks have passed the branch valves and become disengaged from the same.

10 The operation of the apparatus is as follows: When it is desired to supply gas to the range, the supply-valve H in the feed-pipe is turned to the right in the usual manner, and in this operation the rod L and the blocks P will
15 assume the position shown in the drawing, with the blocks P slightly to one side of the circular heads *d*. The valves D can now be opened by turning their handles, as usual, thus bringing their teeth in line with the teeth of the
20 blocks P. If now the valve H is turned to close off the supply of gas, the rod L and blocks P are moved forward and the blocks P engage with the heads *d* of the valves D and close the latter. It will thus be readily understood that the closing of the branch valves
25 takes place simultaneously with the closing of the supply-valve, and consequently if it should be neglected to close off one of the branch valves such branch valve would be
30 invariably closed in the act of closing the supply-valve. If one of the branch valves should be open, the supply-valve cannot be opened for the reason before given.

35 As usual, the threaded end of the feed-pipe A opposite to the valve H is connected with a pipe placed in connection by one or more branch pipes with the surface burners.

40 The device illustrated can be similarly applied to the feed-pipe of a gas-stove, the letter A then designating such feed-pipe having the end opposite to the supply-valve closed by a suitable plug or cap. When the supply-valve is closed, the several branch valves are simultaneously closed, thus preventing
45 escape of gas if one of the valves should be inadvertently left open and the gas turned on.

I do not wish to restrict myself to the construction and arrangement of the operative parts herein shown and described, as it is
50 evident that other mechanical equivalents could be substituted to effect the same end.

What I claim as new is—

1. The combination of a feed-pipe, branch

pipes communicating therewith, a valve in the feed-pipe, valves in the branch pipes, and means for actuating all the valves when the valve in the feed-pipe is closed so that they will all close together, said means being in permanent engagement with the feed-pipe valve, and adapted to become disengaged from the branch-pipe valves when the feed-pipe valve is opened, substantially as described.

2. The combination of a feed-pipe, branch pipes communicating therewith, a valve in the feed-pipe, valves in the branch pipes, a sliding rod connected with the valve of the feed-pipe, and means connected with said sliding rod and adapted to engage with the branch valves when the latter are open and the feed-pipe valve is closed, and to become disengaged from the branch-pipe valves when the feed-pipe valve is open, substantially as described.

3. The combination of a feed-pipe, branch pipes communicating therewith, a valve in the feed-pipe, valves in the branch pipes, and means for actuating all the valves when the valve in the feed-pipe is closed, so that they will all close together, said means consisting of a sliding rod placed in permanent engagement with the feed-pipe valve, toothed blocks mounted on said rod, and heads on the branch valve provided with teeth adapted to be engaged by the toothed blocks when the feed-pipe valve is closed, substantially as described.

4. The combination of a feed-pipe, branch pipes communicating therewith, a valve in the feed-pipe, valves in the branch pipes each having a tooth or projection and a rod connected with the valve in the feed-pipe and provided with pins or projections which are respectively adapted to engage the teeth of the branch-pipe valves and close the said valves when the feed-pipe valve is closed, and to leave a space between them and the said teeth when the feed-pipe valve is opened, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 17th day of October, 1895.

WILLIAM DE FREITAS.

Witnesses:

C. GERST,

M. OPPENHEIMER.