

No. 638,501.

Patented Dec. 5, 1899.

W. DE FREITAS.

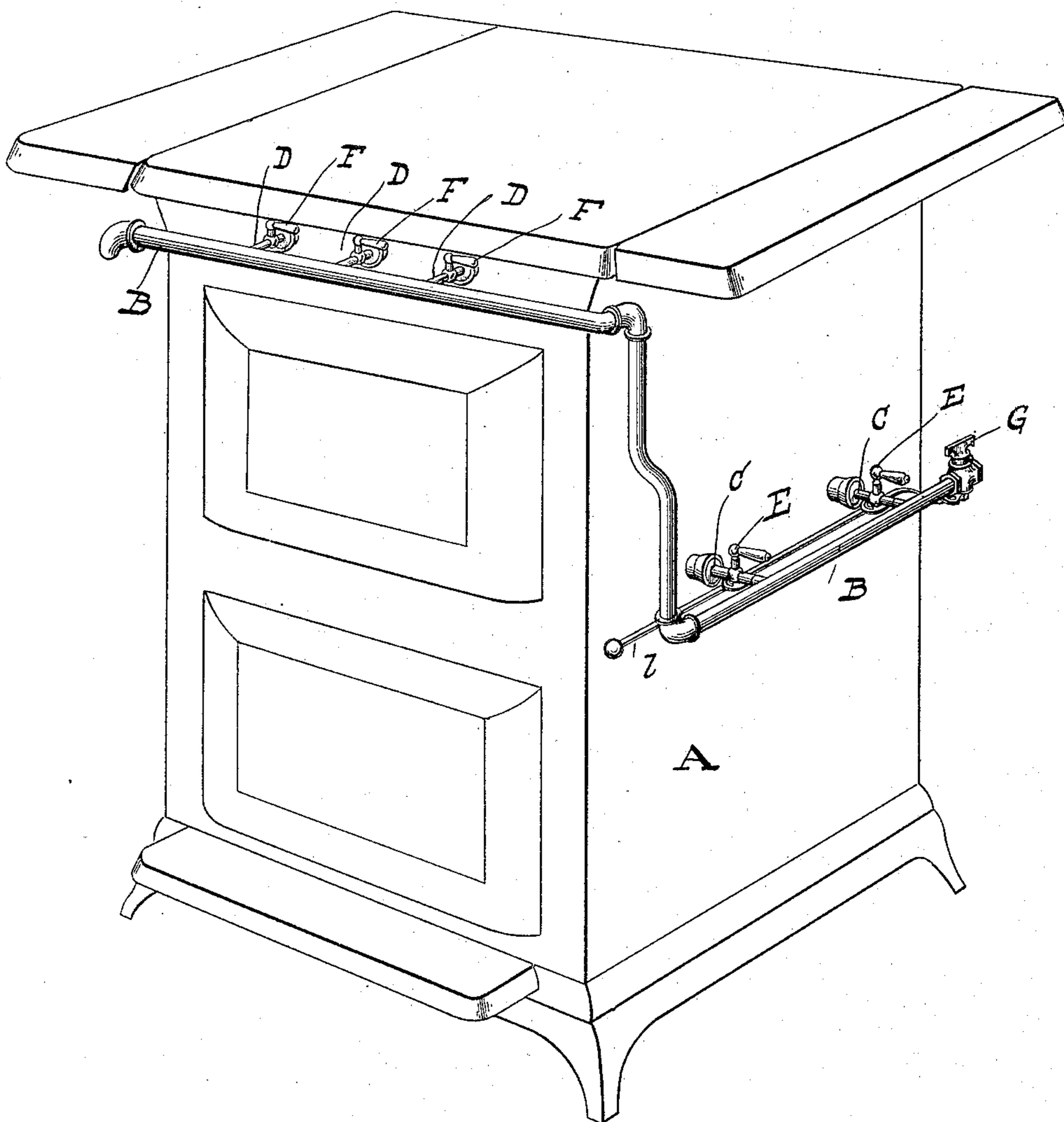
SAFETY ATTACHMENT FOR GAS STOVES OR RANGES.

(No Model.)

(Application filed Sept. 2, 1898.)

2 Sheets—Sheet 1.

Fig. 1.



WITNESSES:

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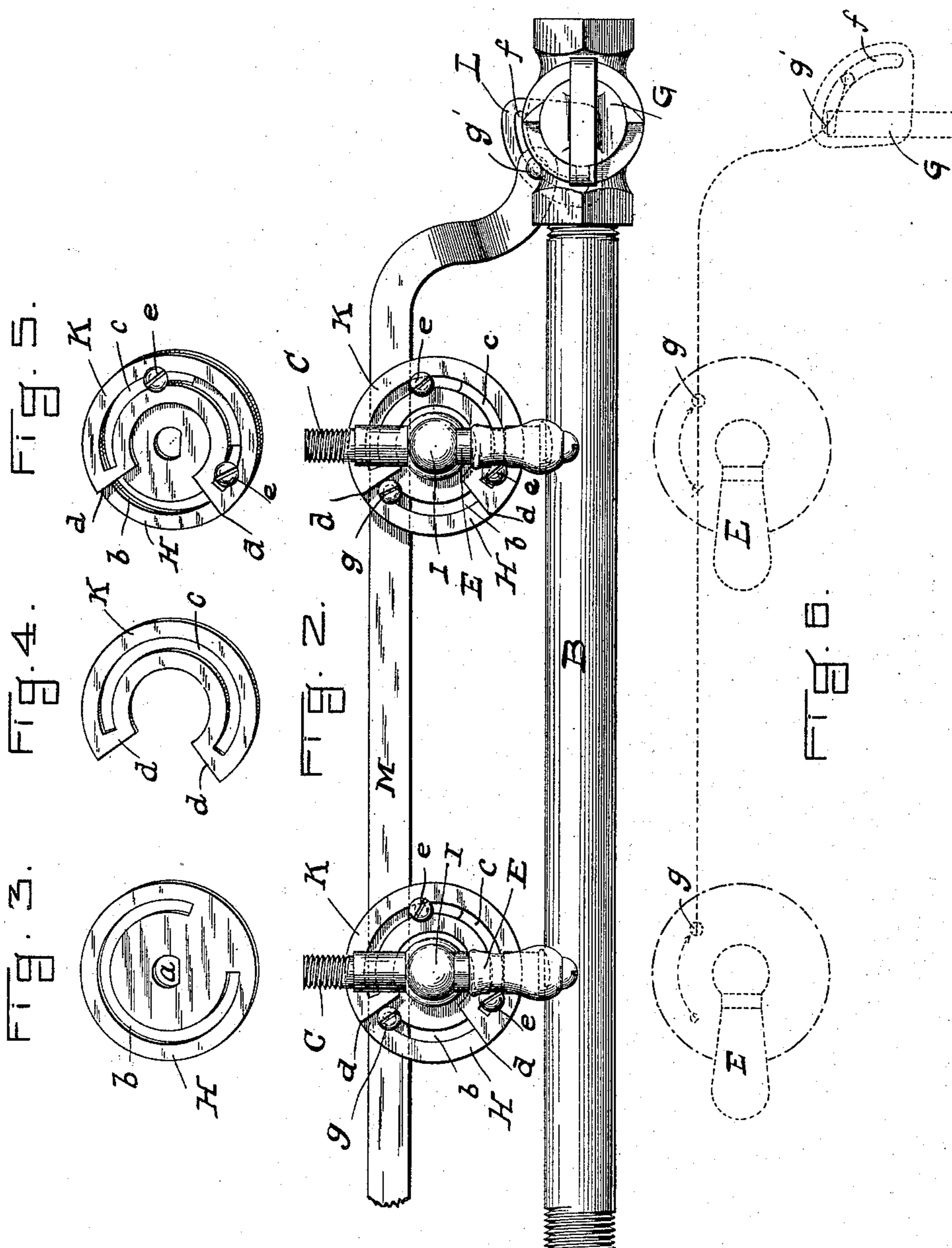
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**2 Sheets—Sheet 2.**



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# 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. 638,501, dated December 5, 1899.

Application filed September 2, 1898. Serial No. 690,102. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM DE FREITAS, a citizen of the United States of America, residing at New York, in Manhattan borough, 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.

My invention has reference to improvements in safety attachments for gas stoves, ranges, or other heaters which are so applied to the pipes for conducting the gas to said heaters that there may be the least possible danger of explosion from escaping gas.

The object of my invention is to provide means whereby the cocks of the branch pipe may be turned on or off without affecting each other or the main cock or that of the feed-pipe; but when said feed-cock is completely turned off there will also be a complete turning off of all the cocks in the branch pipe, thus preventing leakage of the gas from the cocks beyond the feed-cock.

My invention consists, essentially, in securing to the plugs of the several cocks plates provided with curved slots combined with a bar connecting said plates by means of pins extending through said slots, whereby each branch-pipe cock can be turned in either direction without affecting any of the other cocks; but when said bar is moved longitudinally by the closing of a feed-cock the pins on said bar will bear on the corresponding end of each slot and rotate the respective plate and cock until the latter is closed.

The nature of my invention will best be understood when described in connection with the accompanying drawings, in which—

Figure 1 represents a perspective view of a gas-range provided with my improvement. Fig. 2 is a plan view, on an enlarged scale, of the feed-pipe and cocks and intermediate connections. Figs. 3, 4, and 5 are details. Fig. 6 is a diagram illustrating the course of the valve-plates and the pins on the connecting-bar.

Similar letters of reference designate corresponding parts throughout the several views of the drawings.

Referring to the drawings, the letter A des-

ignates a gas-range of the usual construction, having surface and oven burners.

B is the feed-pipe, provided with branches C C, leading to the oven-burners, and with branches D D D, leading to the surface burners. The branches C and D are each provided with cocks E and F, respectively. The feed-pipe B, as usual, is provided with a main cock G for turning on and off the gas to the range. To the plug I of each cock E is secured a plate H, preferably made in the form of a circular disk, which said plate is provided with a socket *a* squared at one portion and fitted over the correspondingly-shaped end of the plug I, thus insuring the turning of the plate when the plug is turned to open or close the cock. The plate H is also provided with a concentric slot *b*. Above the plate H is placed a segment K, provided also with a concentric slot *c* of the same radius as the slot *b*, said segment being provided with radial shoulders *d* and adjustably secured to the plate H by bolts *e* passing through the slots *b* and *c*. To the plug of the main cock G is attached a slotted sector L, the slot *f* therein being about the length of a quadrant of a circle. The space between the ends *d* of the segment K should be about equal to a quadrant.

M is a bar provided with upwardly-projecting pins *g*, passing through the slots *b* of the plates H and secured to the sector L by a bolt *g'* passing through the slot *f*. The segments K are so adjusted on the plates H that the pins *g* will be in contact with the right or upper shoulder *d* of the segments K when the cocks B are closed and the main cock G is also closed. By turning the main cock G to admit gas to the feed-pipe no effect is produced on the cocks E, as the pins *g* simply ride in the slots *b* in the plates H. If, however, one of the cocks E should by inadvertence have been permitted to remain open after admitting gas to the burner through one of the branch pipes C, the shoulder *d* on the segment K is in direct contact with the corresponding pin *g* on the bar M, and consequently when the main cock G is turned the movement of the rod M turns the plug I through a quadrant, as indicated in Fig. 6, and so closes off the admission of gas to the branch pipe. The other cock,

if properly closed, is not affected by the movement of the bar M, as its pin *g* is in contact with the opposite shoulder *d* of the segment K.

In practice I have found that no two cocks  
5 have exactly the same range of motion for opening and closing—that is to say, either the plug does not turn through an exact quadrant or is not so set that it can be closed without adjustable means, and it is for this reason  
10 that I have provided the adjustable segment K, which permits setting for accurate closing of each and every valve.

The end of the bar M may be extended, as shown in Fig. 1, and provided with a handle  
15 *l* to provide for opening and closing all the valves from the front of the stove.

The slotted sector L on the plug of the main cock G permits the end of the bar M to be adjusted, and the sector is for the purpose of  
20 producing parallel movement of said bar in connection with the slots *b* in the plates H.

What I claim as new is—

1. In a safety attachment for gas stoves, ranges and other heaters, the combination  
25 with the main supply-pipe and the branch pipes C and D connecting respectively with the oven and with the surface burners, of adjustable abutments connected with the valve-plugs of the branches leading to the oven-burners, and a connection between said abutments and the main cock for closing the  
30

branch cocks for the oven-burners when the main cock is closed, substantially as described.

2. In a safety attachment for gas stoves, ranges and other heaters, the combination  
35 with the branch cocks, of slotted plates secured to the plugs thereof, segments adjustably mounted on said plates to form abutments, a bar provided with pins entering the slots in the plates and adapted to engage with  
40 the segments, and a connection between said bar and the main cock, substantially as described.

3. In a safety attachment for gas stoves, ranges and other heaters, the combination  
45 with the main cock and the branch cocks, of slotted plates secured to the plugs of the branch cocks, segments adjustably mounted on said plates to form abutments, a bar provided with pins entering the slots in the plates  
50 and adapted to engage with the segments, a slotted sector connected with the plug of the main cock, and a connection between said bar and said sector, substantially as described.

In testimony whereof I have hereunto set  
55 my hand in the presence of two subscribing witnesses.

WILLIAM DE FREITAS.

Witnesses:

EUGENIE P. HENDRICKSON,  
A. FABER DU FAUR, Jr.