

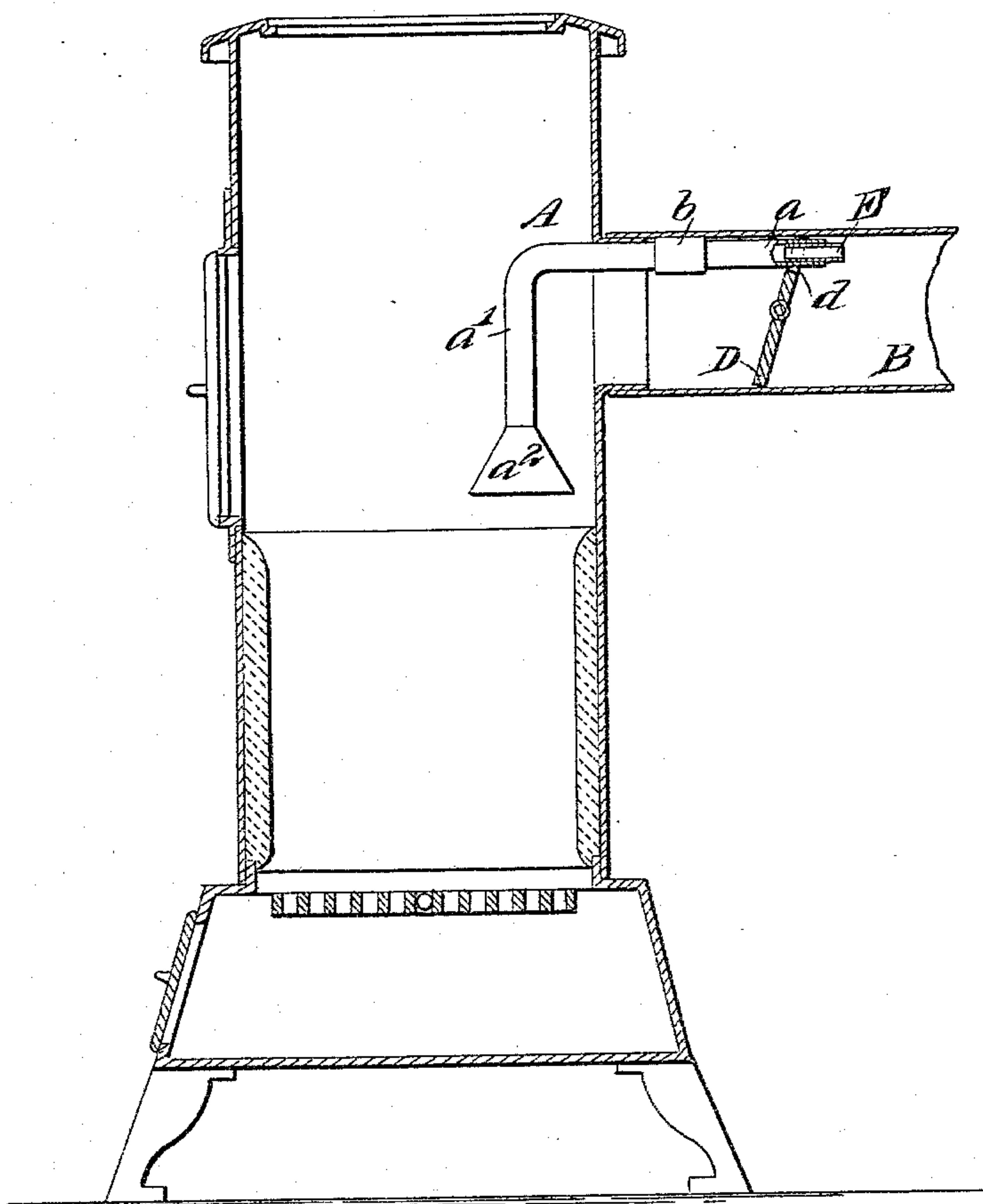
(No Model.)

J. A. CARROLL & W. BROOKS.

GAS CONDUCTING DEVICE AND DAMPER FOR STOVES.

No. 559,675.

Patented May 5, 1896.



WITNESSES:

W. Walker  
J. G. Parker

INVENTORS

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# UNITED STATES PATENT OFFICE.

JAMES A. CARROLL AND WILLIAM BROOKS, OF BROOKLYN, NEW YORK.

## GAS-CONDUCTING DEVICE AND DAMPER FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 559,675, dated May 5, 1896.

Application filed August 17, 1895. Serial No. 559,645. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES A. CARROLL and WILLIAM BROOKS, of Brooklyn, in the county of Kings and State of New York, have  
5 invented a new and useful Improvement in Gas-Conducting Devices and Dampers for Stoves, of which the following is a full, clear, and exact description.

Our invention relates to an improvement  
10 in gas-conducting devices and dampers for stoves and furnaces, being especially adapted for use in connection with cylinder-stoves.

The object of the invention is to provide a  
15 simple and inexpensive device whereby the door of a furnace may be kept closed and whereby the gases from the fuel will be conducted to the flue, preferably through the medium of the smoke-stack, the device being  
20 so arranged as not to interfere with the feeding of the stove with fuel or interfering in the slightest degree with the action of the damper, which latter may be made to operate and control the fire without necessitating the door  
25 being opened when the fire is to be deadened or rendered less intense.

The invention consists in the novel construction and combination of the several  
30 parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying  
35 drawing, forming a part of this specification, which is a central longitudinal section through a cylinder-stove and a portion of the attached smoke-pipe, the damper being in cross-section and a portion of the gas-regulating device being also in section.

In carrying out the invention an offtake-  
40 pipe A, bent to an angular shape and comprising a horizontal member  $a$  and a vertical member  $a'$ , is so placed in the stove that the vertical member  $a'$  will extend downward over the fire-pot, preferably at the rear, while the horizontal member will be located in the  
45 smoke-pipe B of the stove or furnace, a sleeve or bearing  $b$  being provided for holding the angular pipe in connection with the said smoke-pipe.

The outer end of the horizontal member of  
50 the gas offtake-pipe, or that end located in the smoke-pipe, is made to pass through an opening  $d$  in the damper D of the aforesaid smoke-pipe when the damper is closed, and at the

lower extremity of the vertical member of the gas offtake-pipe a funnel  $a^2$  is secured, which is preferably made to somewhat closely approach the fire, and in the inner end of the  
55 horizontal member of the offtake-pipe, or that portion thereof which is adapted to pass through the damper, a reducing-nipple E is located in order to regulate the draft. 60

In operation, no matter if the damper D is closed, the gases will be drawn up into the funnel-section of the offtake-pipe A, and will pass off through this pipe at the back of the damper through the reducing-nipple to the flue, 65 the said gases being sucked up or drawn into the gas offtake-pipe by the currents of air in the flue. Thus it will be observed that when the damper is fully closed the fire will be deadened without the necessity of opening the door of the stove and that all the gases will pass off from the stove to the flue in the same manner as though the damper were fully open. 70

The attachment is exceedingly simple and may be applied to almost any stove or furnace, 75 and will effectually prevent any gas from passing off from said stove or furnace into the room. In fact, the door of the stove or furnace may be kept constantly closed and the intensity of the fire regulated by the usual manipulation of the damper. 80

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

1. In a stove or furnace, a gas offtake-pipe 85 extending into the smoke-pipe, a damper held in the smoke-pipe and provided with an opening to receive the end of the offtake-pipe, the opposite end of the said offtake-pipe extending over the bed of the fire, as and for the purpose set forth. 90

2. In a stove or furnace, a gas offtake-pipe extending at one end into the smoke-pipe and secured thereto, the said offtake-pipe being provided at said end with a reducing-nipple 95 and a damper in said smoke-pipe provided with an opening through which the said end of the offtake-pipe passes, the opposite end of the offtake-pipe extending downward over the bed of the fire and having a flaring mouth, 100 as and for the purpose specified.

3. The combination, with a stove or furnace, its smoke-pipe and damper, the damper being provided with an opening, of a gas off-



take-pipe of angular construction, the horizontal member whereof is secured within the smoke-pipe and passes through the opening in the damper when the damper is closed, the  
5 vertical member of the gas offtake-pipe extending downward over the fire-pot of the stove or furnace, and being provided with a funnel extremity, as and for the purpose set forth.

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