No. 739,076. PATENTED SEPT. 15, 1903.

G. L. GRONDAHL.

STOVE CONTROLLER.

APPLICATION FILED DEC. 26, 1902.

NO MODEL.

Fig. 1.

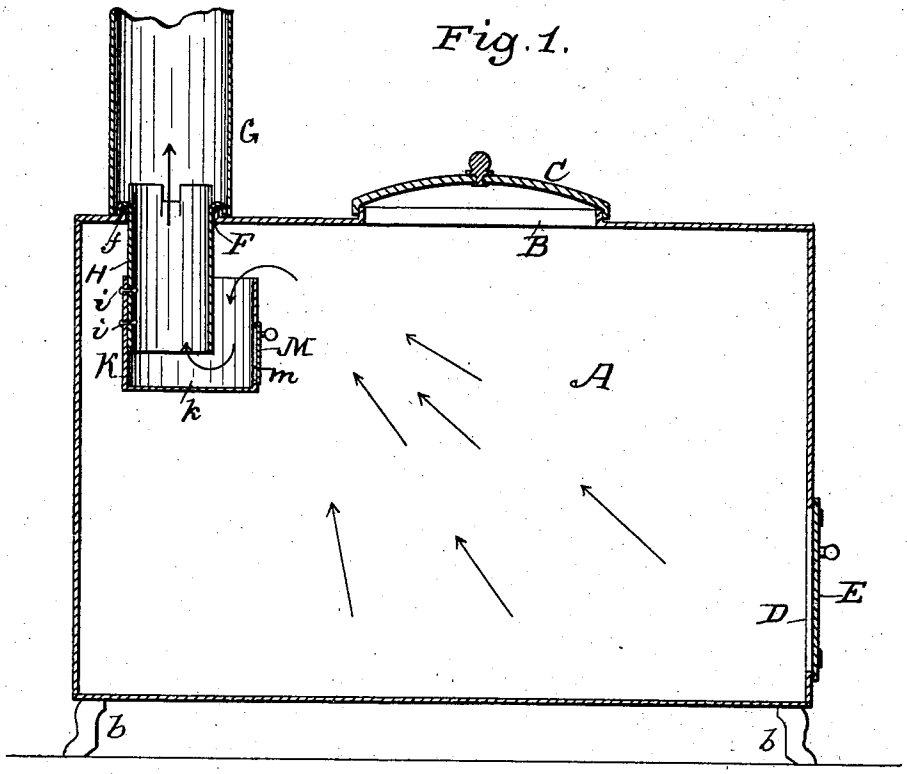
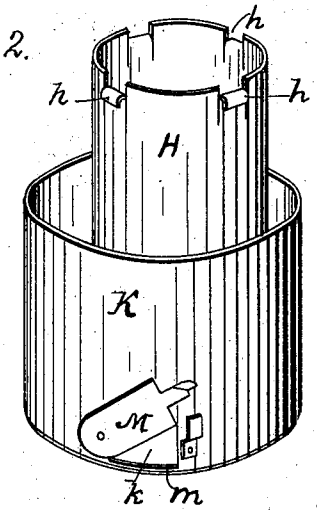


Fig. 2.



WITNESSES:

R. H. Storm,

J. H. Newman.

INVENTOR

BY Gudbrand L. Grondahl

E. E. Masson

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 739,076. Patented September 15, 1903.

UNITED STATES PATENT OFFICE.

GUDBRAND L. GRONDAHL, OF RED WING, MINNESOTA.

STOVE-CONTROLLER.

SPECIFICATION forming part of Letters Patent No. 739,076, dated September 15, 1903.

Application filed December 26, 1902. Serial No. 136,571. (No model.)

To all whom it may concern:

Be it known that I, GUDBRAND L. GRONDAHL, a citizen of the United States, residing at Red Wing, in the county of Goodhue and State of Minnesota, have invented certain new and useful Improvements in Stove-Controllers, of which the following is a specification.

This invention relates to devices used to control the direct draft of stoves; and its objects are to produce a device which will not interfere with the draft within the stovepipe proper, and thus remove the danger occasionally found with adjustable dampers located within the stovepipe. In the present device the draft cannot be accidentally closed; but the flame is checked within the body of the stove and increases radiation produced within said stove. I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of a stove having a flame-controller constructed in accordance with my invention. Fig. 2 is a perspective view, on a larger scale, of the flame-controller removed from the stove.

In the drawings, A represents a direct-draft stove, which may be either rectangular or round or oblong. It is shown as a box-like structure of sheet metal supported on feet *b* and having in its top a large opening B, through which wood or other combustibles can be dropped into the stove. Said opening is closed with a removable cover C. On one side of the stove there is an opening D, through which the ashes can be removed, said opening being closed with a door E. In the top there is also an opening F for the escape of the smoke, and said opening is provided with an upwardly-turned flange *f*, around which the lower end of the smoke-pipe G is usually located.

To prevent the flame of the combustible from going directly into the pipe G, my flame-controller is used. It consists of a short length of pipe H, the periphery of which fits within the opening F of the stove and is retained pendent therefrom by hook-like projections *h*, formed of split portions of the pipe H, which are made to straddle and engage the flange *f* of the opening. To one side of the pipe H is secured, by means of two rivets *i*, a bucket-like receiver K, which has a closed bottom *k*, but an open top. Said receiver is of larger diameter than the pipe H, and its bottom *k* is at a suitable distance below the lower edge of the pipe H to maintain a smoke-passage between them. The upper edge of the receiver is at a suitable distance above the lower edge of the pipe H to cause the flame or products of combustion to first ascend over the edge of the receiver K and then down and under the lower edge of the pipe H, as indicated by the arrows, thus tempering the exit speed of the flame and forming of the receiver K a radiator within the stove. The receiver K is provided in its side with an opening *m*, through which the soot accumulating within the receiver can be easily removed. Said opening is normally closed by a hinged door M; but said door may be temporarily left open at the time a new fire is started to permit a direct draft for a small portion of the flame.

Having now fully described my invention, I claim—

1. In combination with the sides and top of a stove having a smoke-passage in its top and an upturned flange around said passage, a flame-controller consisting of a pipe open at both ends and pendent within the stove from said passage, the upper end of said pipe having hook-like projections *h* for engagement with the upturned flange of the stove, and a receiver of larger diameter than said pipe and having an open top, and a closed bottom at a distance below the bottom of the pipe and secured to one side of said pipe, substantially as described.

2. In combination with the sides and top of a stove, a flame-controller within the stove, and consisting of a pipe pendent from said top, and a flame-deflector of larger diameter than said pipe and secured eccentrically thereto, said deflector having a closed bottom and a small door in its side, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GUDBRAND L. GRONDAHL.

Witnesses:
W. M. CLINE,
GEO. M. GULBRANSON.