

No. 737,086.

PATENTED AUG. 25, 1903.

T. B. DENTON.
AUTOMATIC STOVE DAMPER.
APPLICATION FILED AUG. 18, 1902.

NO MODEL.

Fig. 1.

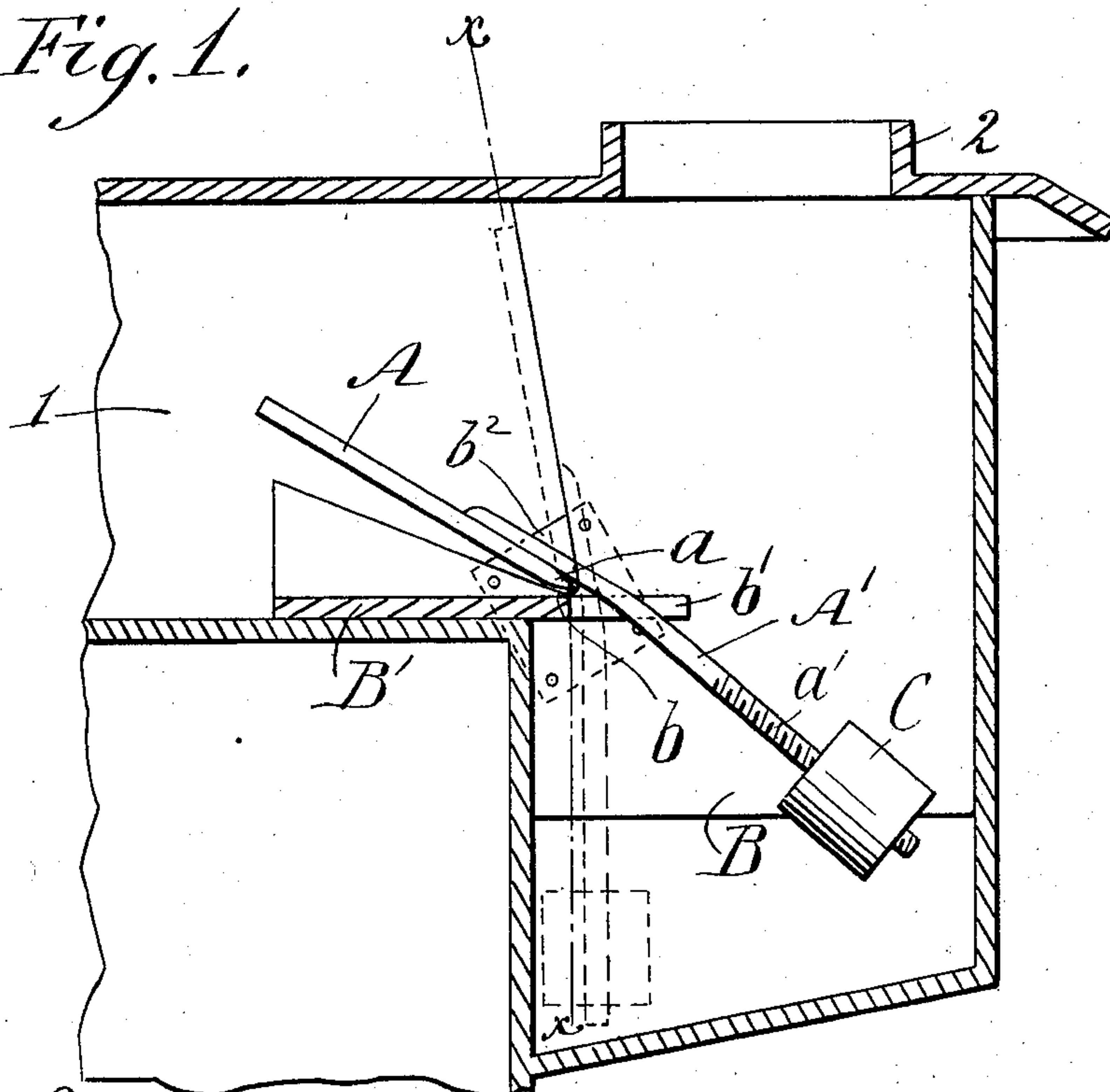
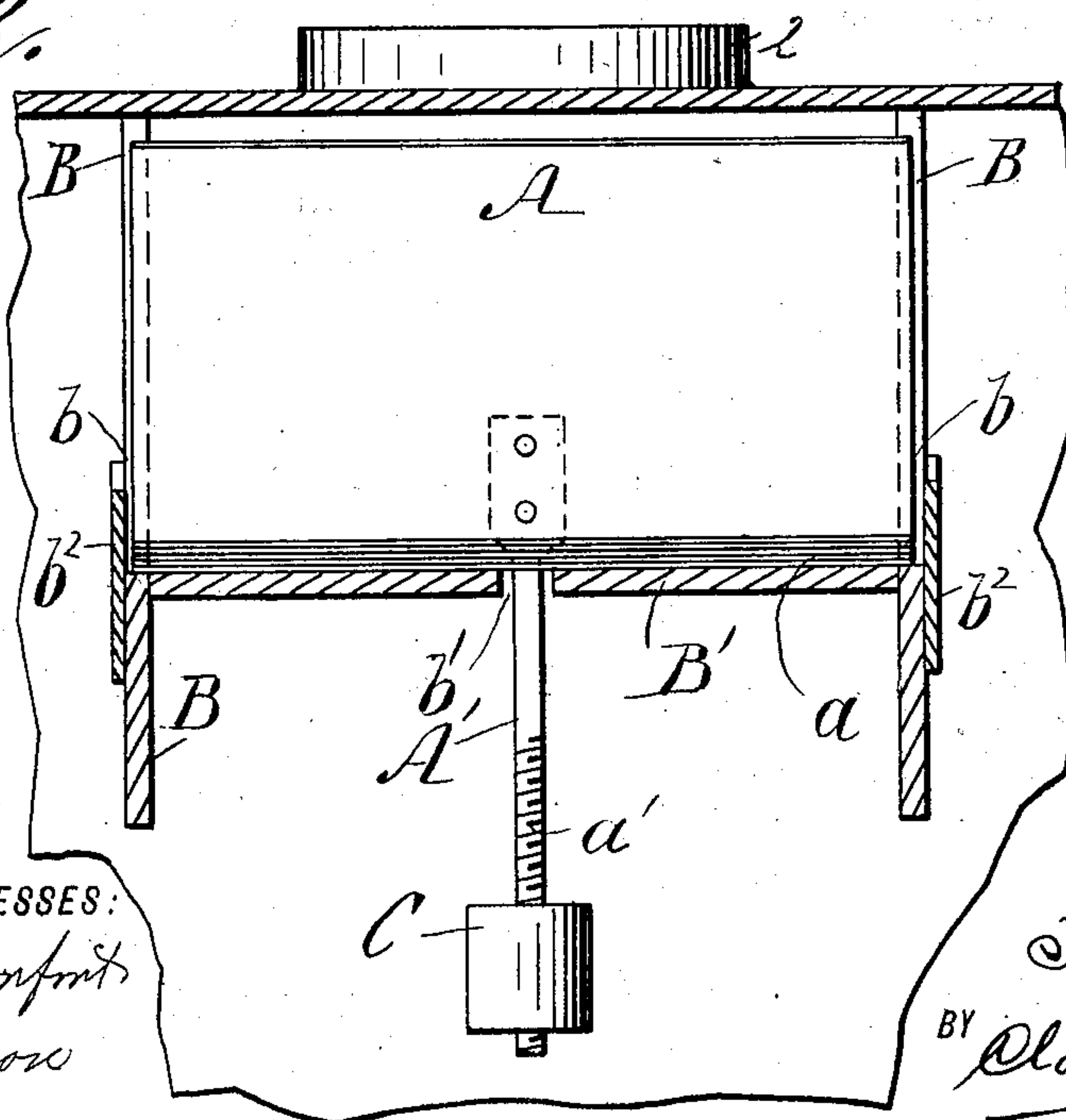


Fig. 2.



WITNESSES:

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THOMAS BENJAMIN DENTON, OF SEBREE, KENTUCKY, ASSIGNOR OF TWO-THIRDS TO C. W. BENNETT AND T. K. WILSON, OF SEBREE, KENTUCKY.

AUTOMATIC STOVE-DAMPER.

SPECIFICATION forming part of Letters Patent No. 737,086, dated August 25, 1903.

Application filed August 18, 1902. Serial No. 119,991. (No model.)

To all whom it may concern:

Be it known that I, THOMAS BENJAMIN DENTON, a citizen of the United States, and a resident of Sebree, county of Webster, and State of Kentucky, have invented certain new and useful Improvements in Automatic Stove-Dampers, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar characters of reference indicate corresponding parts.

This invention relates to automatic stove-dampers, the object thereof being to provide a device of this character which is so constructed as to automatically close under a high pressure of heated air and which will also automatically open when the pressure of heated air is reduced by reason of a lowered condition of the fire, thus providing an efficient means for equalizing the temperature of the stove, whereby a considerable saving of fuel is effected.

The invention will be hereinafter fully described, and specifically set forth in the annexed claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical sectional elevation of a part of a stove having my improved damper connected therewith and shown in normal open position; and Fig. 2 is a sectional elevation taken on the line $x x$ of Fig. 1, showing the damper closed.

In the practice of my invention I provide a damper A, embodying a metallic plate having the tapered lower edge a to form an anti-friction-bearing part which is supported in the V-shaped bearings b , formed in the side walls or plates B, which are located back of the flue 1 and beneath the flange 2, which engages the stovepipe. A cross-plate B' is extended between the plates B to complete the structure, and side plates b^2 are secured to the plates B to prevent lateral displacement of the damper. The plate B' has a slot b' in its rearward central part to allow play of the rod A', which is extended from the damper A. The said rod A' is provided with a screw-threaded part a' , which engages a counter-balance-weight C. This weight is adjustable

on the rod A' for the purpose of gaging the device, so that the damper can be set to close in a certain time by a predetermined condition of heat in the stove.

In the operation and use of the invention the weight C is set on the rod A' in such position that the damper A is balanced in normal open position, as shown in Fig. 1 of the drawings. The plate B', closing up the space between the plates B, the front of the lower edge a of the damper-plate A and the wall of the flue 1 will cause the products of combustion and hot air coming from the flue instead of partly passing under the said damper-plate to nearly all impinge on the front thereof, pass over its upper edge and from thence into the pipe. This condition of the damper is maintained until the products of combustion and heated air passing from the fire-box through the flue 1 attain sufficient pressure to close the damper up against the plates B, as shown by Fig. 2 of the drawings, whereby the draft is cut off and the pressure keeps the damper closed until the fire is allowed to go down to a certain extent. Then when pressure is decreased by a lowered condition of the fire the damper will again assume its balanced open position, whereupon the closing operation may be repeated. By this means the heat of the stove is maintained in an equalized condition and a considerable saving of fuel is effected, the highly-heated air being contained within the stove and not allowed to escape through the pipe.

I do not confine myself to the specific details of construction as herein shown and described, as it is obvious that under the scope of my invention I am entitled to the necessary structural variations required by stoves of various characters.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a stove-damper, the combination with the flue 1, the plates B thereon and notched as specified, and a damper-plate working in said notches, of the plate B', closing the space between the lower edge of said damper-plate, the plates B, and the wall of said flue, and

preventing hot air and products of combustion, coming from said flue, from passing under said damper-plate.

2. In a stove-damper, the combination with
5 the flue 1, the plates B, thereon and notched
as specified, and a damper-plate working in
said notches, of the plate B', having notch b',
and closing the space between the lower edge
of said damper-plate, said plates B, and the
10 wall of said flue, and preventing hot air and
the products of combustion coming from said

flue from passing under the lower edge of said
damper-plate, and a weighted rod upheld by
said damper-plate, and moving in said slot b'.

In testimony that I claim the foregoing as 15
my invention I have signed my name, in pres-
ence of two witnesses, this 24th day of March,
1902.

THOS. BENJAMIN DENTON.

Witnesses:

FRED JACKSON,

SHELBY WINSTEAD JAMES.