

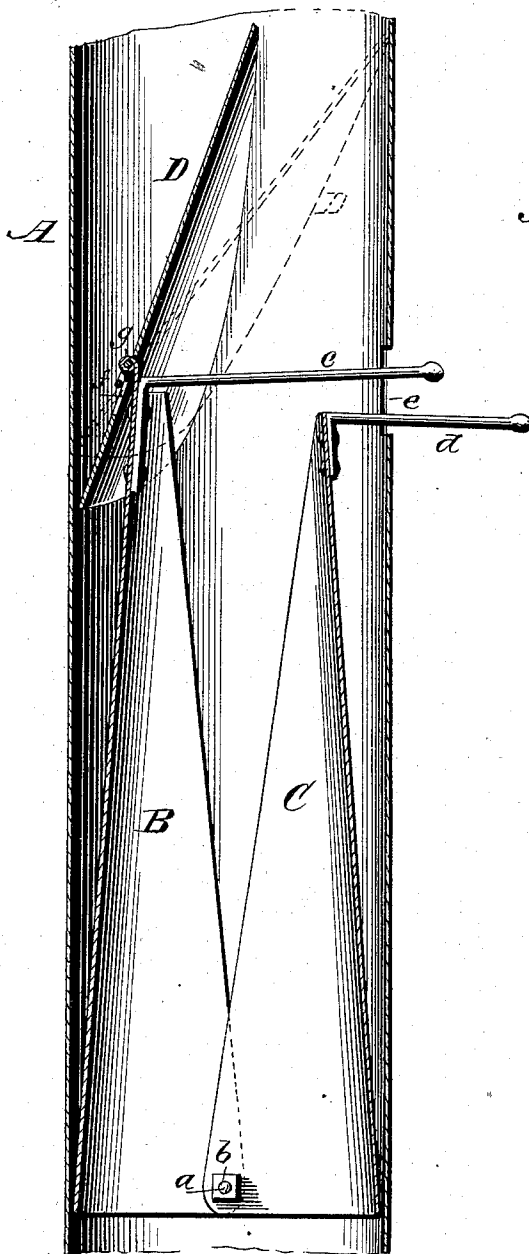
(No Model.)

H. T. SMITH.
STOVEPIPE DAMPER.

No. 535,562.

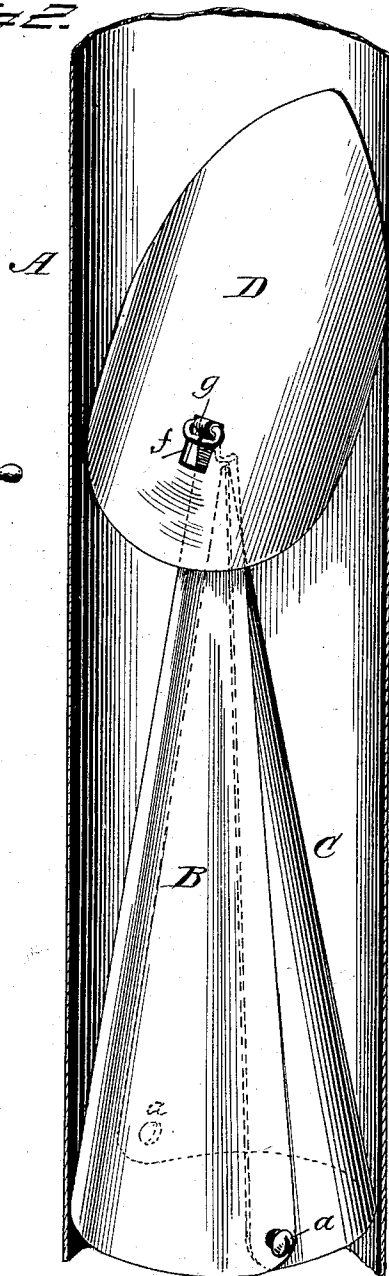
Patented Mar. 12, 1895.

Fig. 1.



Witnesses
G. Williamson.
G. Goddard.

Fig. 2.



Inventor
Henry T. Smith.
per Cha. H. Fowler.
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UNITED STATES PATENT OFFICE.

HENRY T. SMITH, OF KENT, ILLINOIS.

STOVEPIPE-DAMPER.

SPECIFICATION forming part of Letters Patent No. 535,562, dated March 12, 1895.

Application filed September 14, 1894. Serial No. 523,028. (No model.)

To all whom it may concern:

Be it known that I, HENRY T. SMITH, a citizen of the United States, residing at Kent, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Stovepipe-Dampers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has relation to that class of stove-pipe dampers composed of two conical-sections arranged vertically within the stovepipe and hinged or pivotally connected together and to the pipe, whereby the sections may be separated or brought together to form a cone and thus regulate the escape of the products of combustion into the chimney or main escape-flue.

It is the object of the invention to provide such a damper with a supplemental damper that will act automatically in closing the opening in the stove-pipe and prevent any sudden gust of wind which would blow down the chimney from passing into the stove and forcing out the gases or other products of combustion into the room, which objects are attained by the construction substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings represents a sectional elevation of a stove-pipe with my improved attachment connected thereto, the supplemental damper being shown as in an open and closed position in full and dotted lines respectively, and the cone sections of the main damper being open. Fig. 2 is a sectional view of the stove-pipe showing the main and supplemental dampers in perspective, the cone-sections being closed and the supplemental damper being in the same position as indicated in full lines of Fig. 1.

In the accompanying drawings A represents a stove-pipe of the usual construction which has located therein a cone-shaped damper formed of the two cone-sections B C. These sections are hinged or pivoted together and to the stove pipe in any well known and suitable manner so that they can be conveniently separated in order to open said damper, as shown in Fig. 1, or closed to form a hollow

cone, as shown in Fig. 2. I have shown small screw pivots *a* with nuts *b*, said screws passing through the sides of the stove-pipe and through the cone-sections B C and nuts engaging with the screw threaded ends of the pivots upon the inner sides of the sections.

The above means is one of many that may be employed to pivotally connect the cone-sections together and to the stove-pipe, and therefore I do not wish to be understood as confining myself to the means shown.

To the small or upper ends of the cone-sections B C are connected suitable handles *c d* respectively which are disposed at right angles to the sections and extend through a small opening *e* in the stove-pipe. By means of the handles the cone-sections may be conveniently closed or opened or partially so in order to obtain a central or side draft and thereby utilize the heat that would otherwise escape into the chimney.

In connection with this conical shaped damper I provide a supplemental damper D of any suitable form that will close the opening in the stove-pipe when brought into the position shown in dotted lines of Fig. 1. This damper has two motions, viz: a tilting or swinging motion upon its pivotal connection and also a sliding motion longitudinal of its length. In order to provide for this compound movement of the supplemental damper D, the same has formed therein an elongated slot *f* through which extends a suitable head *g*, or any well known means may be substituted for that shown so long as the damper will be capable of this compound movement. The head *g*, which is in the shape of an eye, extends through the slot *f* and is held in engagement therewith by a ring *h* which is connected to the head, thereby providing means whereby the supplemental damper is attached to one of the sections of the cone-shaped damper as will admit of its having a rocking motion as if upon a pivotal center and also a sliding motion a distance equal to the length of the slot.

By reason of the supplemental damper being connected to one of the sections of the cone-shaped damper instead of to the interior of the stove-pipe, when said section is forced back against the interior of the stove pipe, as shown in Fig. 1 of the drawings, the

supplemental damper will be acted upon by the same means that actuates the section of the cone shaped damper, or in other words, the rod connected to said section will simultaneously operate the section to which it is connected and also the supplemental damper, thus opening both section and supplemental damper by a single motion of the rod. The advantages of this compound movement of the supplemental damper will be apparent from the following description:

When the damper is in the position shown in full lines of Fig. 1, the damper could not tilt upon its pivotal connection for the reason that the heel or lower end of the damper would bear against the interior of the stove-pipe and prevent it from moving by the action of any ordinary draft through the pipe coming in contact therewith. Now in order to be brought into the position shown in dotted lines of Fig. 1 so as to close the opening in the stove-pipe, the damper must first move longitudinally or lengthwise. The damper will be caused to move in this direction by any excess of draft passing into the stove-pipe from the chimney or any sudden gust of wind, and will bring the damper in the position shown in dotted lines, the damper being first moved longitudinally or lengthwise and then tilted upon its pivotal connection with the cone-section which will close the opening in the stove-pipe and thus prevent any sudden gust of wind passing down the chimney from forcing the gases or other product of combustion out into the room. To bring the supplemental damper back to its normal position, the section B is closed against the section C by means of the handle *c* which will bring the damper D in nearly an upright position and by its own weight it will fall back to its

former position, and when the cone-section B is thrown back again, the damper will assume the position shown in full lines of Fig. 1, to be again acted upon when the draft down the chimney is sufficiently strong to bring it to the position indicated in dotted lines.

The cone-shaped damper is so arranged in the stove-pipe that its base or larger end is nearest the stove and its smaller end or apex is farthest therefrom, so that the gases accumulating in the cone will automatically open the cone-section by the outward pressure thereon and thus admit the escape of gas into the chimney.

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

1. A sectional cone shaped damper and an automatically operating supplemental damper pivotally connected to one of the sections of the cone shaped damper at its free or smaller end, and means for opening or closing the sections of the cone shaped damper, substantially as and for the purpose set forth.

2. A cone shaped damper for stove pipes, consisting of two hinged or pivoted sections and means for operating them, and a supplemental damper pivotally connected to one of the sections at its free or smaller end and adapted to have both a rocking and a sliding motion, substantially as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY T. SMITH.

Witnesses:

A. F. FALL,
TOBIE KOCH.