

(No Model.)

D. U. CORY.
DAMPER.

No. 500,261.

Patented June 27, 1893.

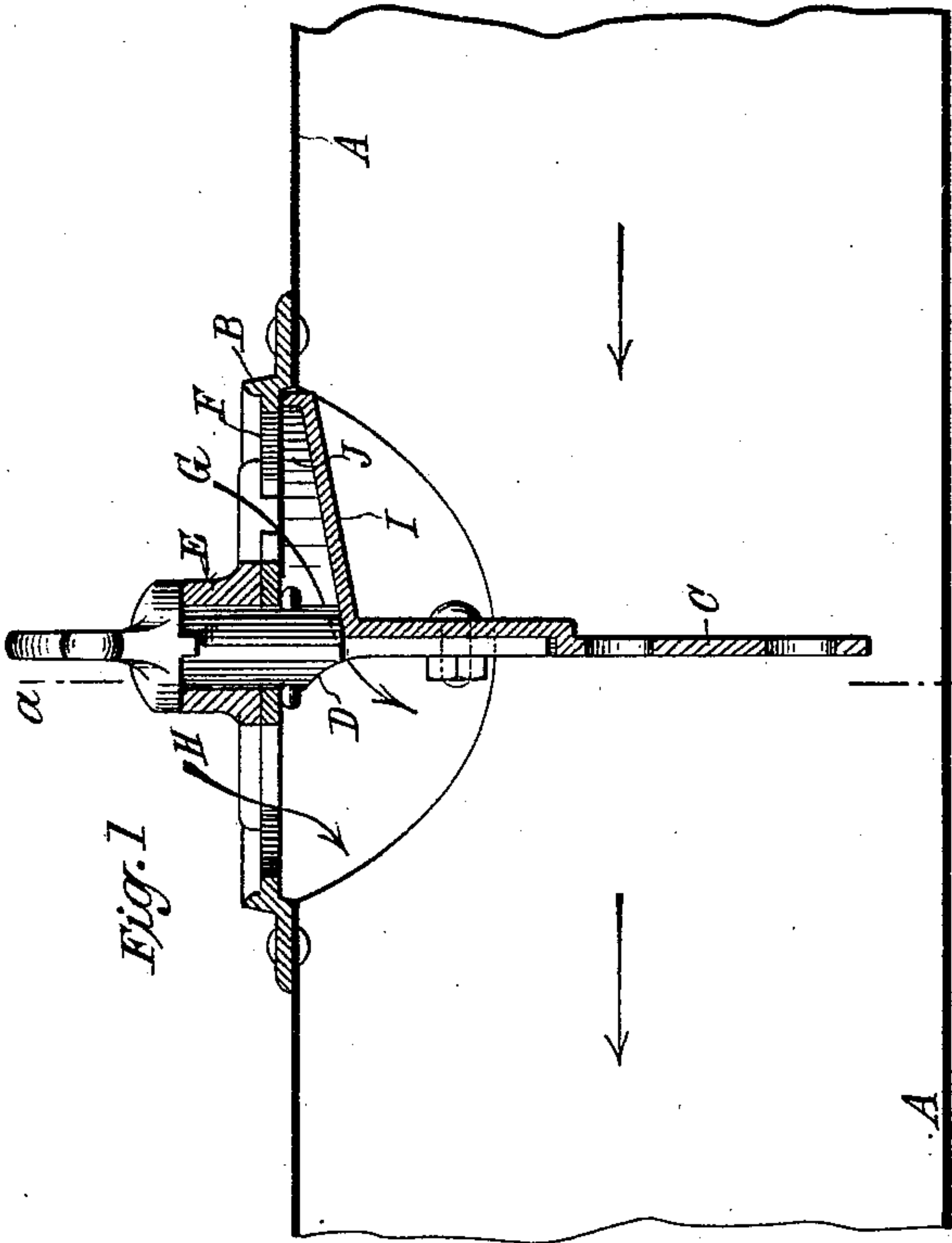


Fig. 3

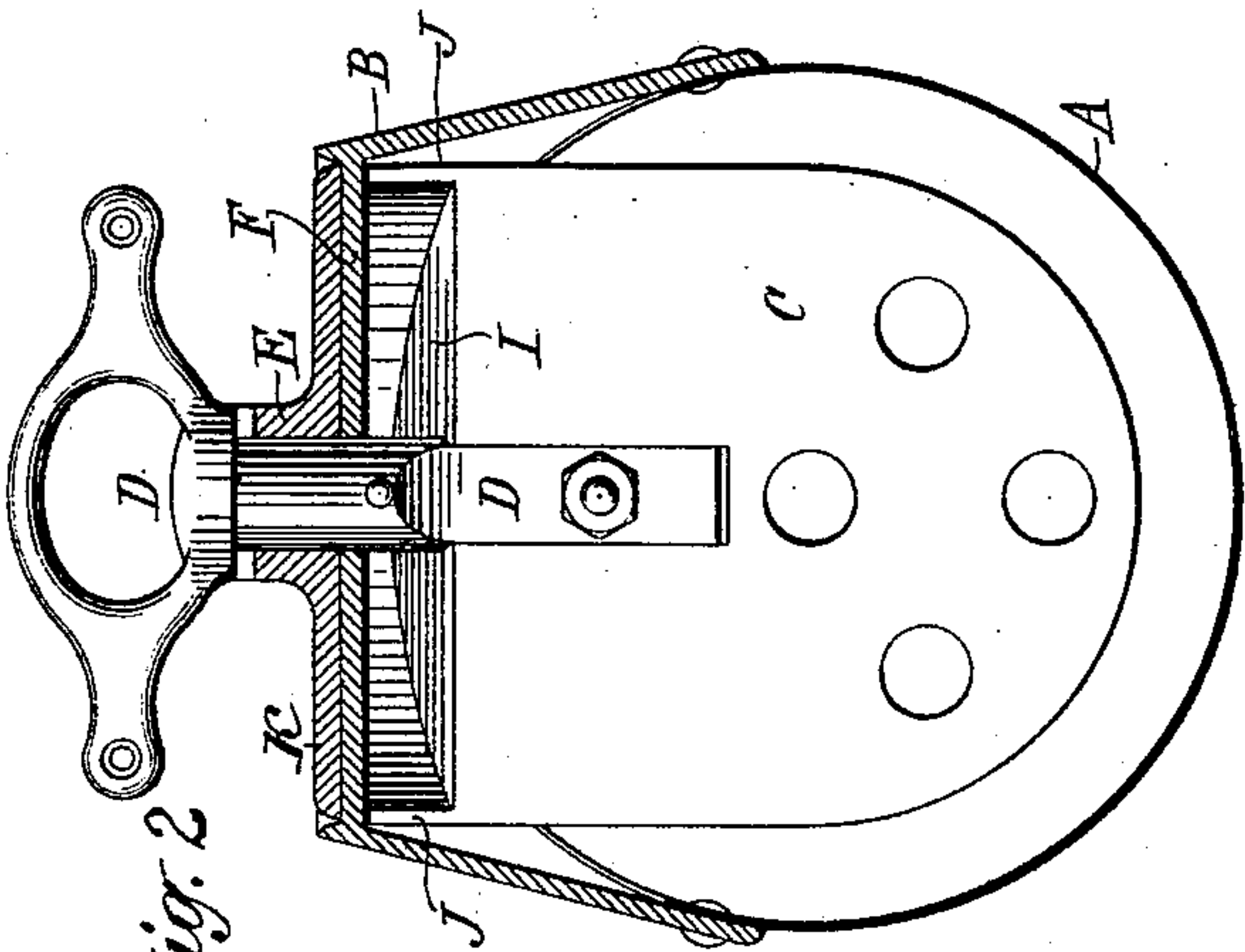
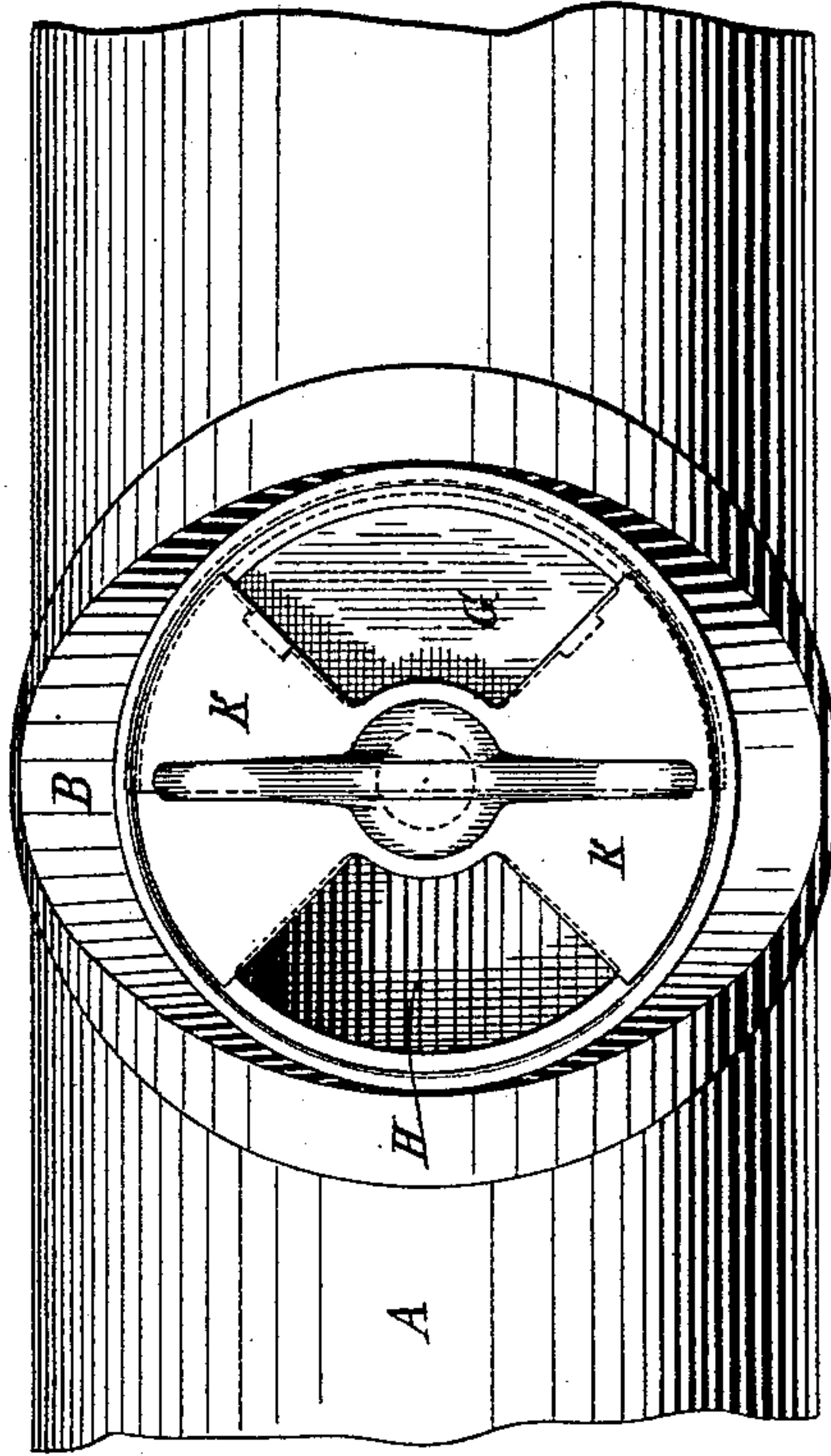
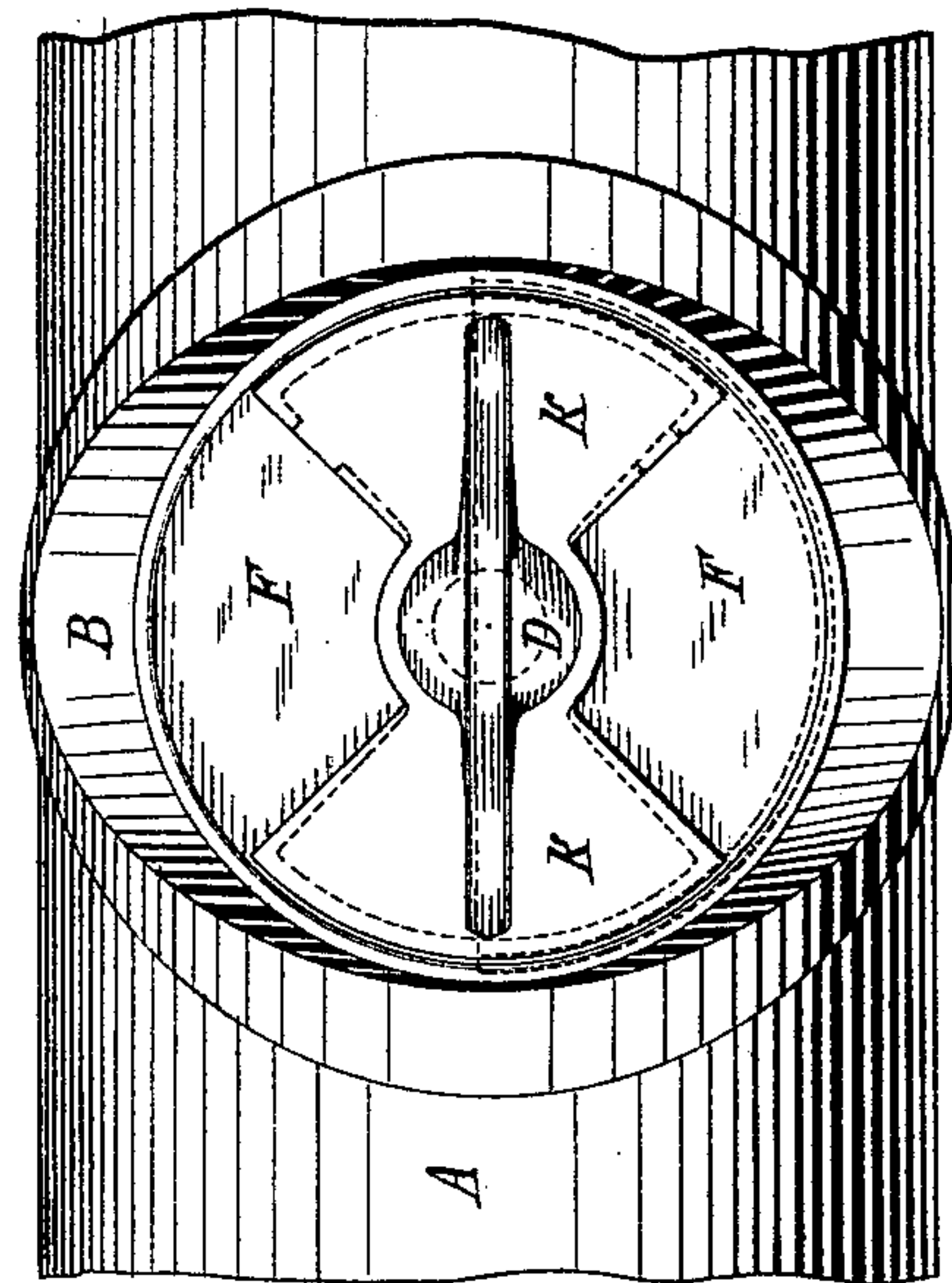


Fig. 4



Witnesses:

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UNITED STATES PATENT OFFICE.

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DAMPER.

SPECIFICATION forming part of Letters Patent No. 500,261, dated June 27, 1893.

Application filed February 9, 1893. Serial No. 461,603. (No model.)

To all whom it may concern:

Be it known that I, DAVID U. CORY, a citizen of the United States, residing at Englewood, county of Bergen, and State of New Jersey, have invented a certain new and useful Improvement in Dampers, of which the following is a specification, reference being had to the accompanying drawings, forming a part of the same.

This invention relates to dampers for stove or furnace and other like flues, pipes or conduits.

The particular object sought by the invention, is to provide means whereby to ventilate the room or place through which may pass a flue or pipe provided with a damper for regulating the passage through the pipe of the products of combustion or hot air; especially it is the object to effect a ventilating opening from the space without the pipe to within the same, and at the same time to cut off or damp the pipe so that the gases conducted thereby can not escape therefrom or into the room or space about the pipe.

It has been common to construct a furnace or stove pipe damper with ventilating ports or openings above and below the damper spindle, which ports were to be closed by segmental vanes or covers carried on the spindle and so arranged as to rotate with the spindle to uncover the ports when the damper was set to close or damp the flue or pipe, and to close such ports when the damper was in open position. By these means, ventilation from without to within the pipe could be effected through the port above the damper spindle, but the gases of the flue could escape from the pipe through the port below the damper, which is highly undesirable especially in cases where the gases are those of combustion.

My invention consists in providing the damper with a hood or guard, so constructed and operated that, when the damper is in position of closing the pipe, the port below the damper may be closed as to egress through it of the gases in the pipe from behind or below the damper, but will be left open to permit ventilation from without the pipe to within the same above or beyond the damper.

In the drawings Figure 1 is a lengthwise section of a pipe fitted with a damper, shown

in closed position and embodying my invention, it being understood that the passage of the contained hot air or gases is from the right to the left-hand. Fig. 2 is a cross-section on plane *a a*, looking from the left hand of Fig. 1. Fig. 3 is a plan view of the parts of Fig. 1, showing the ventilating ports open. Fig. 4 is a like view, with the ventilating ports closed, the damper being then open or arranged edgewise along the pipe.

In these views, A represents the pipe or flue in which the damper is mounted.

B is the damper case or frame, this being of the ordinary coupling form, whereby it is fitted to the pipe without obtruding upon the interior space of the pipe.

C is the damper, which is mounted as usual on the handle spindle D having a journal bearing E in the disk or front plate F, which plate is pierced to produce the segmental ventilating port G below or behind the damper, and the segmental port H above or beyond the damper.

I is the hood or guard, which is a part of or suitably mounted on the damper disk. This hood is of semi-circular form, of size corresponding to the circle of the ports G and H. It springs from the damper at a short distance from the front plate, and extends toward such plate along a plane inclined thereto. Its outer edge is provided with the semi-cylindrical flange J which is loosely in contact with the inner face of the front plate.

K K are the common vanes or covers that serve to close the ventilating ports G and H when the damper is turned to open position, these being mounted on the spindle and turning therewith. By these means, it will now be seen, that when the damper is closed, as in Fig. 1, the hood or guard closes the lower or rear ventilating port so as to prevent any of the gases in the pipe escaping through such port to without the pipe. At the same time, this port is left open to permit air from without the pipe to enter through the same and pass to above or beyond the damper. Thus the ventilating capacity of the damper is increased by one port, and without danger of contaminating the outer air by the gases in the pipe.

As is usual and for certain well understood

purposes, the damper does not fully close the pipe, especially about its inner end or rounded edge, and it may in some cases be perforated as shown. This is for the purpose of permitting a slight movement along the pipe of the gases, even when the damper is closed. But it is to be noticed that the hood at the spindle side of the damper fits closely against the front plate. Thus the gases passing are directed along the bottom or back side of the pipe and have no chance to pass out of the ports. Furthermore, the slight current of gases, thus directed, will act to draw in the air through the ports and facilitate ventilation.

What is claimed as new is—

1. In a damper mechanism for pipes and flues, the combination of a damper disk or plate pivotally supported in the pipe or flue, a ventilating port above and one below the damper, and a pivotally supported hood or guard adapted to be moved to cover and prevent exit from below the damper through the lower port and to permit ingress through said

port to above the damper, substantially as and for the purpose set forth.

2. A damper mechanism for pipes or flues, composed of a damper disk pivotally mounted in the pipe, a ventilating port above and one below the damper, and a hood or guard carried on the damper axis and constructed and arranged to be moved to cover said lower port and prevent exit from below the damper and also to permit ingress through said port to above the damper, substantially as and for the purpose set forth.

3. A damper mechanism for pipes or flues, composed of a damper disk pivotally mounted on a spindle, a ventilating port below the damper, and a hood or guard carried on the damper spindle and arranged to be moved with the damper to cover said lower port when the damper is closed, substantially as and for the purpose set forth.

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