

(No Model.)

J. M. GIBBS.

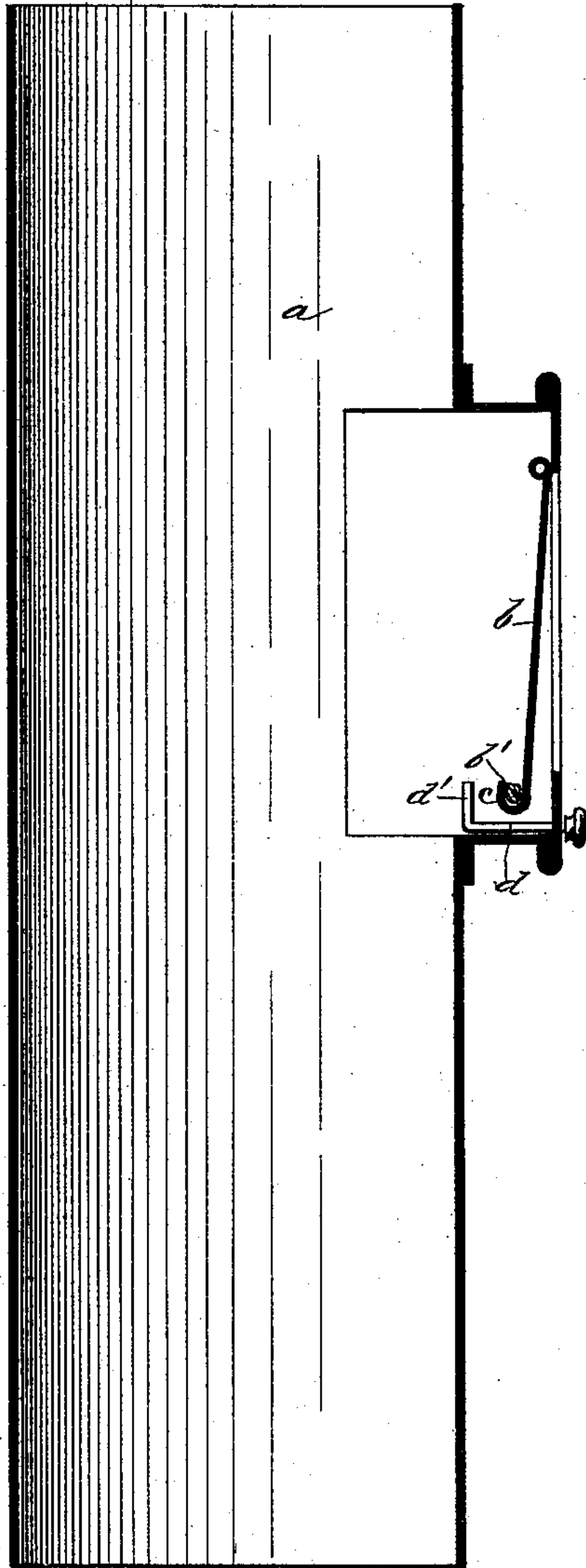
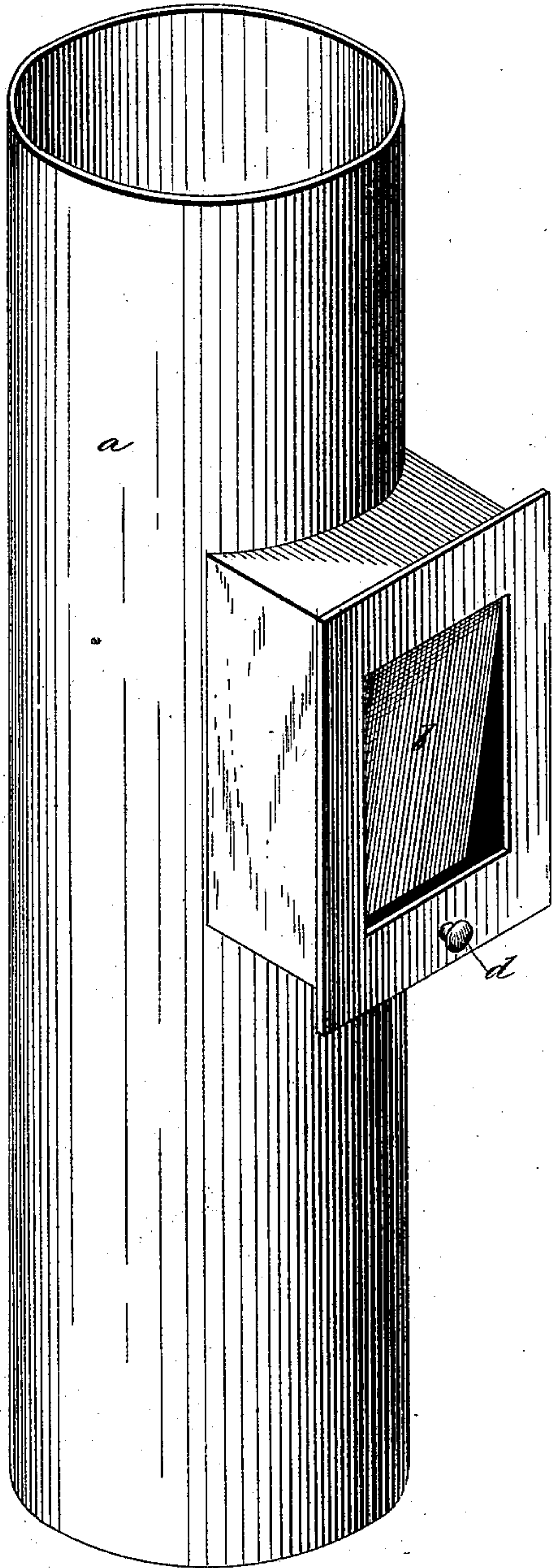
DRAFT REGULATOR FOR SMOKE PASSAGES.

No. 376,473.

Patented Jan. 17, 1888.

Fig. 1.

Fig. 2.



Witnesses:
H. C. McArthur
H. S. McArthur

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per
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UNITED STATES PATENT OFFICE.

JOHN MURRAY GIBBS, OF PARK HILL, ONTARIO, CANADA.

DRAFT-REGULATOR FOR SMOKE-PASSAGES.

SPECIFICATION forming part of Letters Patent No. 376,473, dated January 17, 1888.

Application filed May 1, 1886. Serial No. 200,736. (No model.)

To all whom it may concern:

Be it known that I, JOHN MURRAY GIBBS, a subject of the Queen of Great Britain, residing at Park Hill, in the county of Middlesex and Province of Ontario, Canada, have invented certain new and useful Improvements in Draft-Regulators for Smoke-Passages, of which the following is a specification, to wit:

This invention relates to draft-regulators for smoke-passages; and it consists in certain peculiarities of the construction and arrangement of the same, substantially as will be hereinafter more fully described and claimed.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe its construction and operation, referring to the accompanying drawings, in which—

Figure 1 is a perspective view of my invention applied to a stove-pipe, and Fig. 2 is a vertical section of the same.

a represents a smoke-escape passage, whether this be a stove-pipe, chimney, or other similar flue. In an opening in the outer wall of this passage is hung a valve or regulator, *b*, which is hinged at its upper end, and whose weight holds it normally closed against the frame or opening in which it is placed.

In all stoves, furnaces, &c., much annoyance is felt when a high wind prevails in the increased draft of the fire burning a great amount of fuel. In this case the valve or regulator *b* is normally closed, and the draft of the fire is such as ordinarily desired; but when a high wind causes undue draft in the smoke-flue the diminished pressure behind the valve causes it to swing inward and thereby admit freely and automatically a draft of air sufficient to balance the pressure and keep the draft upon

the fire steady and constant. When the wind diminishes, the valve closes of its own weight, as will be at once understood. The mere weight of the valve will in most cases cause it to act perfectly; but when the smoke-flue has too great a natural draft I provide the lower end of the valve with a weight, as at *b'*, which may be made as great as is found necessary in practice, the rear side of the valve being formed with a trough, *c*, in which more or less weight is placed, as required.

To limit or regulate the movement of the valve, I provide its frame with a small rod, *d*, having a hooked end, *d'*, and by this means I limit the inward swing or hold the valve against closing, as may be desired.

This regulator will of course be formed of any suitable material and of various sizes and shapes for use in stove-pipes, chimneys, or any smoke-escape passage where desired, and is perfectly automatic in its action, and regulates the draft passing through the fire to the exact amount necessary to proper and perfect combustion.

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

The combination, with the smoke-pipe *a*, formed with an opening in one side, of the valve *b*, hung over said opening, and formed with the trough *c*, to receive a weight, and the rod *d*, having a hooked end, *d'*, substantially as and for the purpose set forth.

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

JOHN MURRAY GIBBS.

Witnesses:

JOHN HUGH LAUGHTON,
WALTER SHAW.