

(No Model.)

H. R. HOFFMAN.
DRAFT GATE FOR FIRE DOORS.

No. 544,038.

Patented Aug. 6, 1895.

Fig. 1.

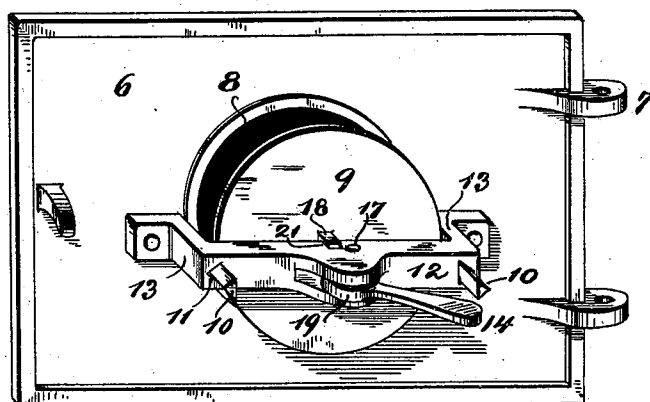


Fig. 2.

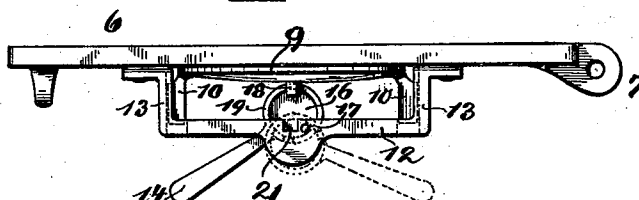


Fig. 3.

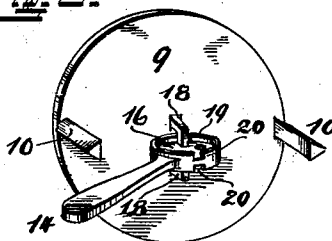
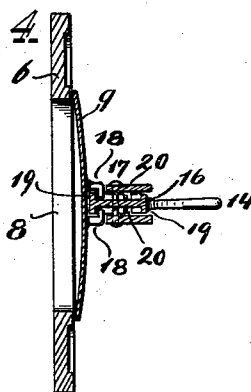


Fig. 4.



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DRAFT-GATE FOR FIRE-DOORS.

SPECIFICATION forming part of Letters Patent No. 544,038, dated August 6, 1895.

Application filed February 13, 1895. Serial No. 538,229. (No model.)

To all whom it may concern:

Be it known that I, HENRY R. HOFFMAN, a citizen of the United States, and a resident of Hamilton, Butler county, State of Ohio, have invented a certain new and useful Draft-Gate for Fire-Doors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form a part of this specification.

This invention relates to new and useful improvements on fire-doors for stoves and furnaces, and particularly to that part thereof whereby the customary draft-opening which permits additional air to the fire is more or less or entirely closed, and whereby also the volume of air to be admitted is regulated.

The novel features of this invention reside in a new form of door or draft-gate for the draft or air inlet opening in the fire-door and in the construction whereby such gate is supported, moved, and adjusted. This latter construction is such as to permit the gate to be closed so tight as to be practically air-tight to shut off all draft in case a slow fire is desired.

In the following specification, and particularly pointed out in the claims, is found a full description of my invention, its operation, parts, and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 shows in a perspective view a fire-door provided with my improved draft-gate in open position. Fig. 2 is a top view of Fig. 1 with the draft-gate closed. Fig. 3 shows in a perspective view the latter detached and provided with its operating-handle. Fig. 4 is a central vertical section of the fire-door and draft-gate.

In the drawings, 6 indicates a customary fire-door provided with hinges 7, by which it is supported on the front of a stove or furnace. 8 is the air-inlet opening therein, preferably round, and 9 is the gate therefor, conforming in its shape to the outlines of said opening. From the gate project outwardly guides 10, which take into openings or guideways 11 of a bridge 12, which stretches in front of and across the air-inlet opening and is

provided with legs 13, by which it is secured to the outside of the fire-door. These legs are of suitable length to bring the bridge sufficiently away from the fire-door to permit the gate while supported thereon to be also moved to and from the former to a position to either close opening 8 entirely or to permit more or less air to enter. For the purpose of this adjustable movement a lever-handle 14 is provided, which has at its inner end a circular disk-shaped enlargement 16 by which, at 17, it is eccentrically pivoted within a horizontal slot in the middle portion of the bridge, which latter is preferably enlarged at this point. The gate is connected to this lever by means of, preferably, two hook-shaped lugs 18, projecting from the former and engaging with vertical flanges 19, bordering the edge of this circular enlarged end of handle 14. In order to bring these flanges within the lugs, notches 20 are provided in the former, through which the latter are passed before the lever is pivoted in position, which notches are so located as to prevent disengagement when all parts are arranged in their final order.

The operation of the gate will no doubt be now readily understood. By reason of the eccentricity of flanges 19 to pivot 17 the gate will be pushed inwardly and close opening 8 when the handle is swung to the left, (see Fig. 2,) whereas when turned to the right, as shown in Fig. 1, the gate will be pulled outwardly and open the inlet 8, by reason of flanges 19 drawing on lugs 18. To accommodate these latter at the extreme end of this adjustment notches 21, to clear them, are provided on the inner side of the bridge. Intermediate positions of the gate to regulate the volume of air-admittance are readily determined by the position in which the handle is left between its extreme adjustments. During these movements flanges 19 simply slide through between lugs 18, imparting through them a rectilinear movement to the door.

This draft-gate may also be applied to the ash-pit doors in place of the registers now used thereon. In either case the air-inlet opening conforms to the shape of the door—that is to say, in long narrow doors, for instance, it may be made oblong.

Having described my invention, I claim as new—

1. In combination with a fire-door having
an air-inlet-opening, a bridge secured in front
thereof, a draft-gate supported thereon in a
manner to be capable of being moved to or
5 from the door, an operating lever-handle for
the draft-gate having a circular disk-shaped
enlarged end by which it is supported on the
bridge, hook-shaped lugs 18 on the draft-gate
and flanges 19 at the enlarged end of the lever
10 which by engaging with the hook-shaped lugs
18 of the gate connect the latter to the lever-
handle.

2. In a draft-gate for fire-doors, the combina-
tion of the fire-door, a bridge with guide-ways
15 stretching across the air-inlet-opening there-
in, a draft-gate with guides whereby it is sup-
ported in the guide-ways of the bridge in a

manner to be moved to or from the door, an
operating lever-handle, having an enlarged
disk-shaped end by which it is eccentrically 20
pivoted to the bridge, hook-shaped lugs 18 on
the draft-gate and flanges 19 on the disk-
shaped enlarged end of the lever-handle which
engage with lugs 18 for the purpose of con-
necting gate and handle, notches 20 in said 25
flanges to permit such connection and notches
21 in the bridge to clear lugs 18 during the
extreme outward position of the draft-gate.

In testimony whereof I hereunto set my sig-
nature in presence of two witnesses.

HENRY R. HOFFMAN.

Witnesses:

C. SPENGEL,

D. J. HAUSS.