

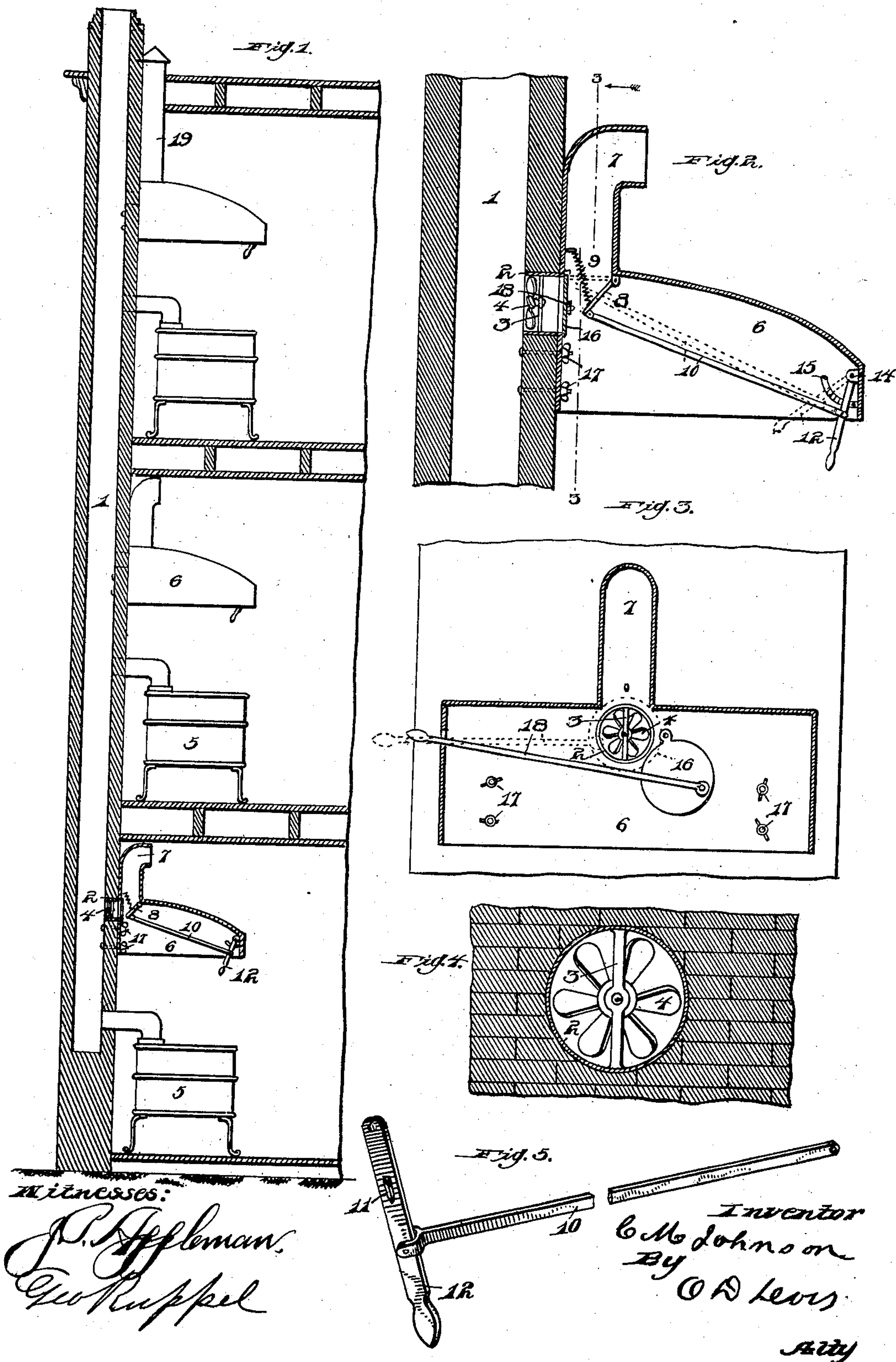
No. 691,773.

Patented Jan. 28, 1902.

C. M. JOHNSON.
FLUE FOR CONDUCTING FUMES.

(Application filed Mar. 29, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

CHARLES M. JOHNSON, OF BENNETT, PENNSYLVANIA.

FLUE FOR CONDUCTING FUMES.

SPECIFICATION forming part of Letters Patent No. 691,773, dated January 28, 1902.

Application filed March 29, 1901. Serial No. 53,396. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. JOHNSON, a citizen of the United States of America, residing at Bennett, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Flues for Conducting Fumes; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and useful improvements in ventilating systems, and has for its object to provide novel and effective means for ventilating rooms of a building in a manner that the fumes or odors arising from the cook-stove may be conducted direct to the chimney or flue leading to the atmosphere.

In the accompanying drawings, Figure 1 is a vertical sectional view of a part of a building, showing a cook-stove on each floor with my improved ventilating system or means in connection therewith. Fig. 2 is a vertical sectional view of a part of the flue or uptake, showing the receiving-hood in position. Fig. 3 is a transverse vertical sectional view of the receiving-hood. Fig. 4 is a side elevation of a part of the flue or uptake, showing the fan arranged in the wall thereof. Fig. 5 is a detail perspective view, partly broken away, of the lever for regulating the damper of said hood.

In the accompanying drawings, 1 indicates the main flue or uptake from the different rooms of the building, and in the wall of this flue or uptake at each room in the building is placed a thimble or sleeve 2, carrying a cross-bar 3 for mounting a fan within the thimble or sleeve. This fan 4, which may be driven by any suitable means, (not shown,) serves to create a suction to draw the fumes or odors from the room to the uptake or flue.

Secured to the wall of the uptake or flue 1, directly above the thimble or sleeve and directly over the stove 5, is a receiving-hood 6, approximately the width and length of the stove. This receiving-hood has a flue 7, which leads downwardly to the thimble or sleeve for a purpose as will be hereinafter more fully explained. The hood carries a pivoted valve

or damper 8, adapted to be held to normally close the bottom of the flue 7 by means of a spring 9, connected to said valve or damper and to the hood, as shown in Fig. 2, the valve or damper being shown in its normal position in this view in dotted lines. Connected to this valve or damper 8 is a bar or rod 10, having a bifurcated lower end for connection with a lever 12, that is pivoted to a bracket 14, carried by the receiving-hood at the front end of the latter. This lever 12 is provided with a slot 11 for engagement with the teeth on a rack-bar 15, carried by the hood. When this lever is disengaged from the teeth of the rack-bar, the spring 9 will tend to close the valve or damper 8, and the position of this valve or damper may be varied by adjusting the lever 12 in its engagement with the teeth on the rack-bar 15.

The thimble may be closed, so as to shut off the draft through the same or this draft varied by a damper 16, pivotally supported from the rear wall of the hood 6 and operated to open or close the end of the thimble or sleeve by means of a lever 18, pivotally connected to said damper and extending outward through the wall of the hood. The hood may be connected to the wall of the flue or uptake by bolts 17, as shown, or in any other suitable manner. Where the hood is employed in an upper story, the flue 7 may be conducted directly to the atmosphere, as shown at 19.

When cooking upon the stove, the valve or damper 8 may be in the position shown in Fig. 2, and the damper 16 being open the fumes arising from the stove will be collected in the hood, the valve or damper 8 acting as a deflector and causing said fumes to pass out through the thimble or sleeve to the uptake, or in case this valve or damper 8 is closed the entire draft will be through the thimble or sleeve to the uptake. Should there be any fumes in the room after cooking, the valve or damper 8 is opened, and these fumes having risen to the ceiling they are conducted into the flue 7 and by the draft in the uptake or flue and through the thimble or sleeve are drawn into said uptake or flue and conducted direct to the atmosphere. As stated, where the device is employed in connection with an

upper room the flue 7 may be conducted direct to the atmosphere without connection to the flue or uptake 1.

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

A stove-hood, comprising in combination with the flue, a thimble passing through the wall therein, a regulating-plate over said
10 thimble, a hood secured to said flue, and provided with an upwardly and forwardly extending open-ended neck, a damper secured to the bottom of said neck portion of the hood,

a spring secured at one end to said damper, its other end fixed to the wall of the hood, a
15 pivoted lever mounted on the hood, link connection between said lever and damper, and a curved rack-bar passing through an aperture in the lever, as set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two
20 subscribing witnesses.

CHARLES M. JOHNSON.

Witnesses:

JOHN GROETZINGER,
M. HUNTER.