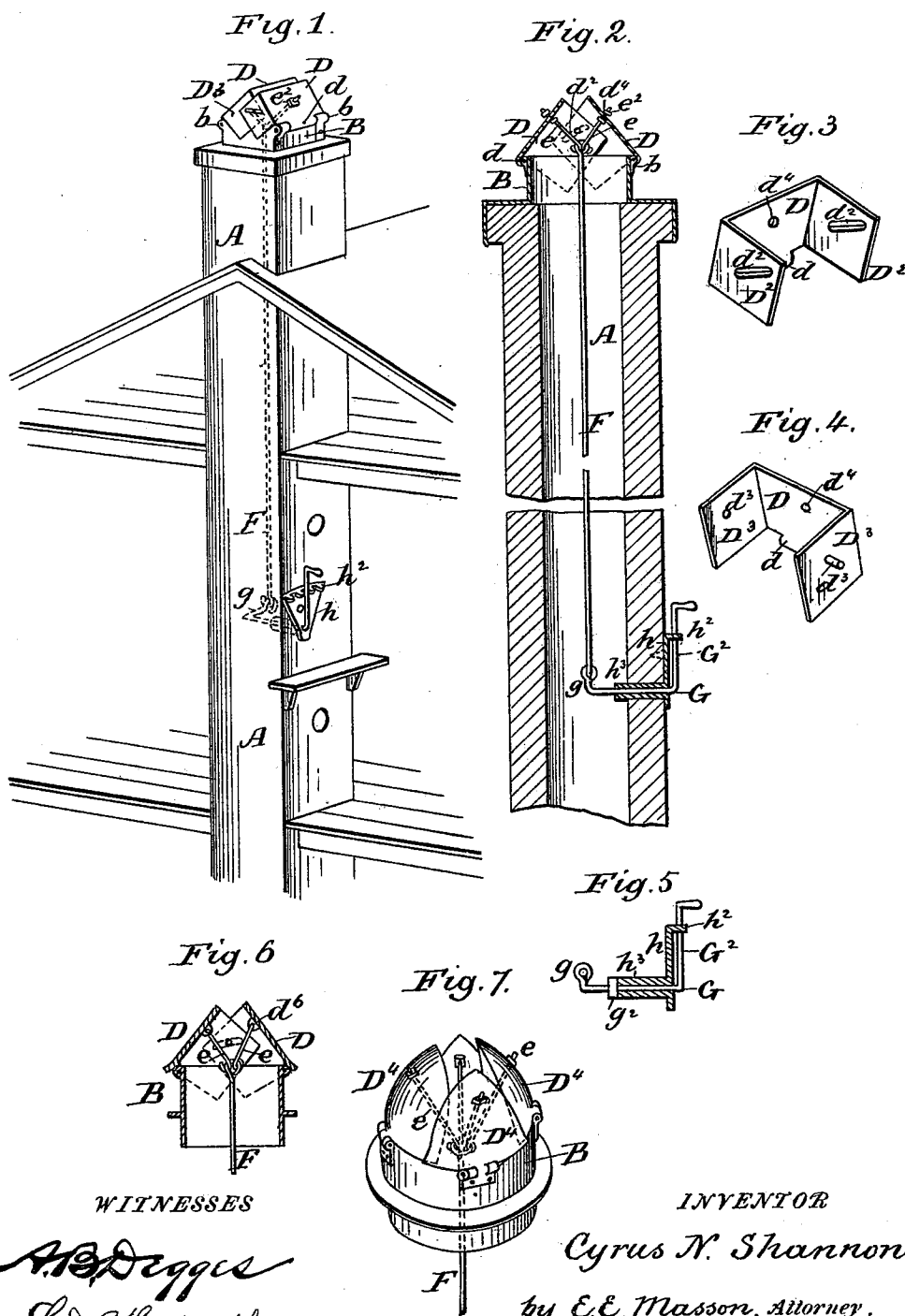


(No Model.)

C. N. SHANNON.
CHIMNEY COWL.

No. 544,390.

Patented Aug. 13, 1895.



UNITED STATES PATENT OFFICE.

CYRUS N. SHANNON, OF ST. CLOUD, MINNESOTA.

CHIMNEY-COWL.

SPECIFICATION forming part of Letters Patent No. 544,390, dated August 13, 1895.

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To all whom it may concern:

Be it known that I, CYRUS N. SHANNON, a citizen of the United States, residing at St. Cloud, in the county of Stearns, State of Minnesota, have invented certain new and useful Improvements in a Combined Chimney Draft-Regulator and Cowl, of which the following is a specification, reference being had therein to the accompanying drawings.

The objects of my invention are to provide a simple and inexpensive device to regulate the amount of draft in a chimney according to the degree of temperature or the velocity of the wind outside of a house, or in accordance with the number of open stove-flues leading into the same chimney to reduce the amount of fuel burned in a room or house in maintaining a certain temperature within said room or house.

Another object is to obtain with said device an adjustable wind deflector or cowl capable of wholly closing the top of the chimney (if desired during the summer months) and controllable from the interior of the house.

I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 represents in perspective a portion of the roof and floors of a house and its chimney provided with a combined draft regulator and cowl constructed in accordance with my invention. Fig. 2 is a vertical section of a chimney, its combined draft regulator and cowl, and the controlling lever and rods therefor. Figs. 3 and 4 are perspective views of the baffle-plates of the device. Fig. 5 is a modification of the controlling-lever and its bearing and retaining plate. Fig. 6 is a vertical section of a modification of the chimney-cap with the baffle-plates intended to be of cast or of thick sheet metal. Fig. 7 is a modification in which four baffle-plates are hinged to a circular chimney-cap.

In said drawings, A represents a chimney of any suitable form or construction. In Figs. 1 and 2 it is provided with a rectangular cap B, preferably of galvanized sheet-iron, the bottom of which is outwardly and also downwardly flanged to cover and protect the top brick courses of the chimney and be firmly secured thereto. Two of the sides of the cap B are provided with hinge members *b*, made

of either sheet-metal straps riveted to said sides or from metal extensions looped from said sides. The other member of each hinge consists of the inwardly bent and looped lower edge *d* of each baffle-plate D, a pair (or more) of which constitute the combined draft regulator and cowl of the chimney. A light rod passed through the looped members *b* and *d* completes the hinge. The plates D are preferably rectangular, one of a pair being slightly longer than the other, as they are provided with end flaps *D*² or *D*³ intended to overlap each other and also to overlap two of the sides of the cap to prevent air from entering under the plates D from the outside. The flaps *D*² *D*³ are also to give mutual protection to each other against strong gusts of wind. For this purpose the flaps *D*³ of one of the plates D are provided with pins *d*³ projecting outwardly therefrom that are received in slots *d*² formed in the flaps *D*² of the other plate D. After the pins *d*³ have thus been received in the slots *d*², heads are formed in the ends of said pins. In place of the pins *d*³ short bolts and nuts thereon may be used for the same purpose.

To regulate from the inside of the house the inclination of the plates D toward each other, and consequently the size of the opening between their upper edges, each plate D has one end of a short rod *e* hinged thereto, while the opposite or inner end is provided with an eye. Each eye is interlocked with an eye formed on the upper end of a rod F pendent therefrom within the flue of the chimney. The lower end of the rod F is hinged to the crank end *g* of a rod G that is made to pass horizontally through the wall of the chimney. The outer end of the rod G is bent at right angles to its body to constitute a crank-handle *G*², by which it can be easily manipulated. To retain the handle *G*² in any desired position a segmental plate *h* is secured to the chimney between it and the handle *G*². The curved edge of the plate *h* is provided with forwardly-projecting teeth *h*² to receive and retain between them the handle *G*². The plate *h* can be placed in any desired position on the wall of the chimney, and is preferably provided on its rear side with a perforated bushing *h*³ that passes through the wall of the chimney and presents a smooth bearing

for the rod G, through which it can be first pulled a short distance outwardly to adjust its handle between the teeth and then pushed back into its normal position. If the rod G is provided with a collar, as shown at g^2 in Fig. 5, the handle G² can be used as a spring-handle and be sprung out and in between the teeth h^2 .

One out of many well-known ways may be used to hinge the short rods e to the plates D. In Figs. 1 and 2 the outer end of said rod is shown as passing loosely through a perforation d^1 in said plates, with nuts e^2 thereon loosely clamping the plates D. If the plates D are made of thicker metal, or of cast-iron, said plates can be provided with perforated lugs or eyes d^6 , as shown in Fig. 6. In said figure the cap B has only a small flange to rest upon the top of the chimney, the portion under said flange being intended to be received within the flue of the chimney.

In Fig. 7 the cap B is provided with four concavo-convex baffle-plates D⁴, the edges of the two of which slightly overlap the edges of the other two. They are also hinged to the cap B and are provided with short rods e , hinged thereto and to the controlling-rod F. In either of the forms shown the plates D constitute very effective wind-deflectors to prevent it from entering the chimney-flue. I have found by experience that with rectangular plates D twelve inches long an opening one inch wide

between their upper edges is enough to give a good draft to one stove, or an opening two inches wide when the pipes of two stoves are led into the same flue. Any larger opening causes a waste of fuel to heat the air that is unnecessarily sucked from a room into the wide chimney-flue.

Having now fully described my invention, I claim—

1. In combination with a chimney and its cap, two baffle plates hinged to said cap and having flaps overlapping each other, rods e pivotally secured to said plates, a rod F pivotally secured to the rods e , and a crank rod pivotally connected to the rod F and passing the walls of the chimney substantially as described.

2. In combination with a chimney and its cap, two baffle plates hinged to said cap and having flaps overlapping each other, the flaps of one plate having slots therein and the flaps of the second plate having pins received in the slots of the first plate, rods e pivotally secured to said plates, a rod F pivotally secured to the rods e and means to operate the rod F substantially as described.

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

CYRUS N. SHANNON.

Witnesses:

ANDREW C. ROBERTSON,
ELMER M. JOHNSON.