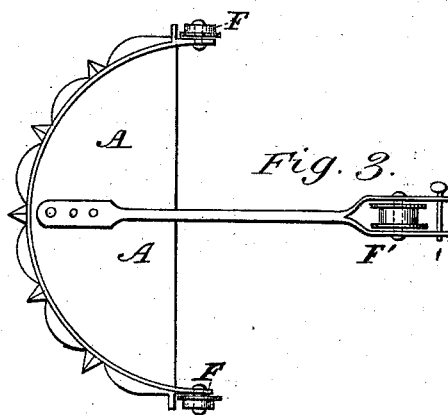
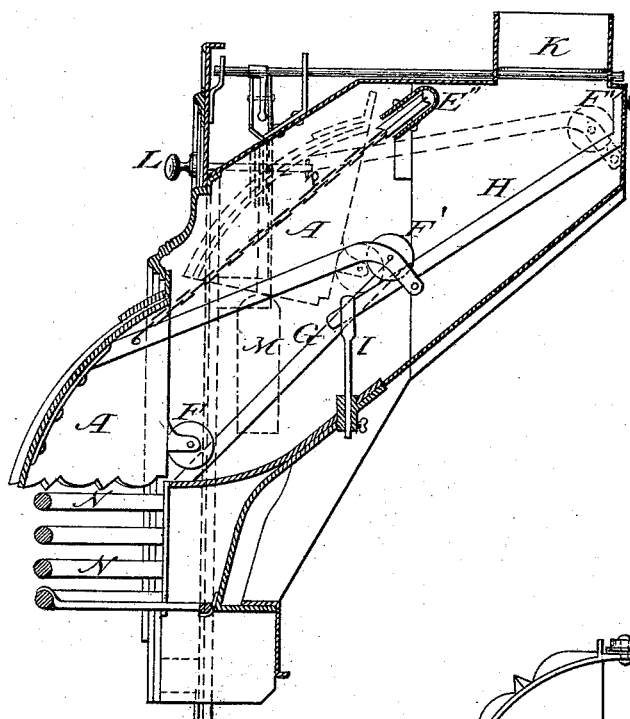


A. VAN DE WIELE.
Combined Open-Grate and Blower.

No. 217,496.

Patented July 15, 1879.

Fig. 1.



Attest:

Hippolyte Buebyer
Guillaume Buebyer

Inventor.

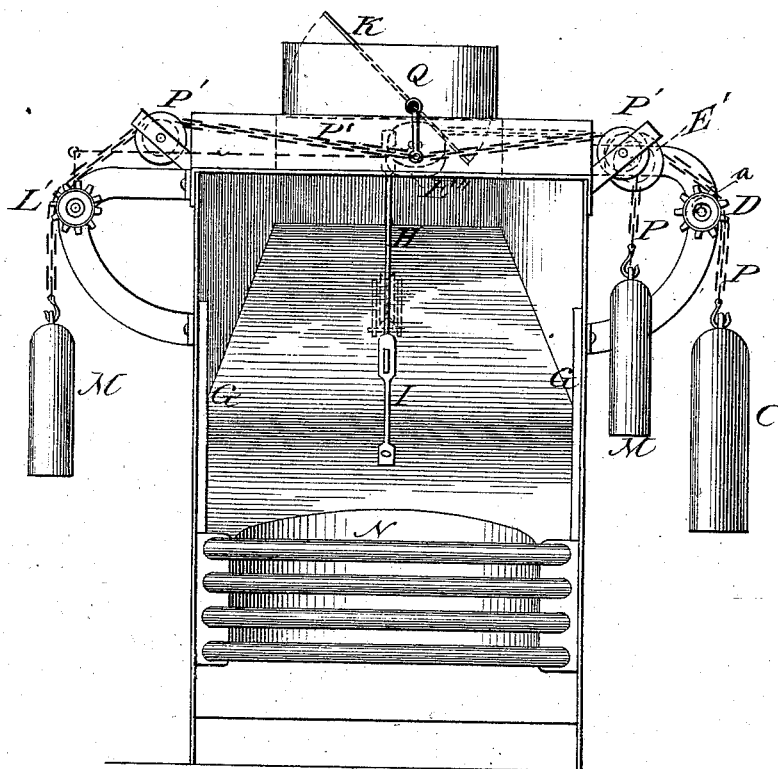
Am VandeWiele

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Fig. 2.



Attest:

Hypolyte Bulmyk
Gustav. Biebuyck

Inventor:

Am Vorkurt

UNITED STATES PATENT OFFICE.

AMAND VAN DE WIELE, OF BRUSSELS, BELGIUM.

IMPROVEMENT IN COMBINED OPEN GRATE AND BLOWER.

Specification forming part of Letters Patent No. **217,496**, dated July 15, 1879; application filed September 14, 1878.

To all whom it may concern:

Be it known that I, AMAND VAN DE WIELE, of Brussels, Belgium, have invented an Open Grate with Movable Blower and Choke-Draft, of which the following is a specification.

The object of my invention is to modify or increase the draft in open fire-grates by a movable blower that may be lowered upon the basket of the grate or elevated out of sight by simply turning a button attached to the front of the grate.

The nature and movement of this mechanism may be more fully understood by a reference to the following description.

Figure 1 represents a sectional elevation of the grate, showing the mechanism of the apparatus for elevating and depressing the blower. Fig. 2 represents a front view of the grate divested of the front plate, so as to show the interior arrangement of the mechanism from the front. Fig. 3 is an inverted plan of the blower and one of its attachments.

The basket-grate N is constructed in the usual way, and the back of the fire-place is inclined at an angle of about forty-five degrees. The blower A has the form of a small section of a hollow sphere. It is made adjustable for the purpose of modifying or increasing the draft of the fire without obstructing the draft of the chimney.

The blower is counterbalanced by a weight, M, which is suspended from a chain, P, that runs over the toothed wheel D and grooved pulleys E' E'', and is attached to the blower, on the inside thereof. The pulley E'' is located in the upper portion of the chamber, in rear of the grate proper, while the wheel D, Fig. 2, is placed on the outer side thereof, and mounted on a shaft whose forward end is provided with a milled disk or thumb-wheel, a, Fig. 2.

Wheels F are attached to the sides of the blower A, and run on inclined rails G, placed upon the sides of the grate-chamber. Another wheel, F', is journaled in the rear end of a bar, which is attached to the middle portion

of the blower, and this wheel also runs on a rail, H, extending along the middle portion of the grate-chamber and supported on a vertically-adjustable post, I.

By turning the thumb-wheel a the wheel D will be rotated and the chain P caused to travel, thus raising or lowering the weight C, as the case may be, and causing the blower to ascend or descend on the inclined plane formed by the rails G G H.

K indicates a disk, which is pivoted eccentrically in the chimney Q. The disk serves as a draft-regulator, since its adjustment on its fulcrum enlarges or diminishes the size of the opening in the chimney through which the heated air and gaseous products of combustion escape.

The means for adjusting the disk K are the chains P', to which the counterbalance-weights M are attached, the toothed wheel L', and a button or milled thumb-wheel, L, fixed on the front end of the same shaft as wheel L', in the same manner that the button a is applied to the shaft of wheel D.

In place of chains and weights, I may employ articulated rods attached to the crank-arm of the damper K, and arranged as shown in dotted lines, Fig. 2.

What I claim is—

The combination, with a fire-grate blower and ways on which the same slides toward and from the grate proper, of a chain and counterbalance-weight, a chain-wheel, D, and turning wheel or disk a, substantially as shown and described, so that by rotating the said disk the blower will be adjusted, as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing-witnesses.

AM. VAN DE WIELE.

Witnesses:

HIPPOLYTE BIEBUYCK,
GUSTAV BIEBUYCK.