

(No Model.)

A. STOCKER.

FUEL SAVING ATTACHMENT FOR STOVE GRATES.

No. 479,536.

Patented July 26, 1892.

FIG. 1.

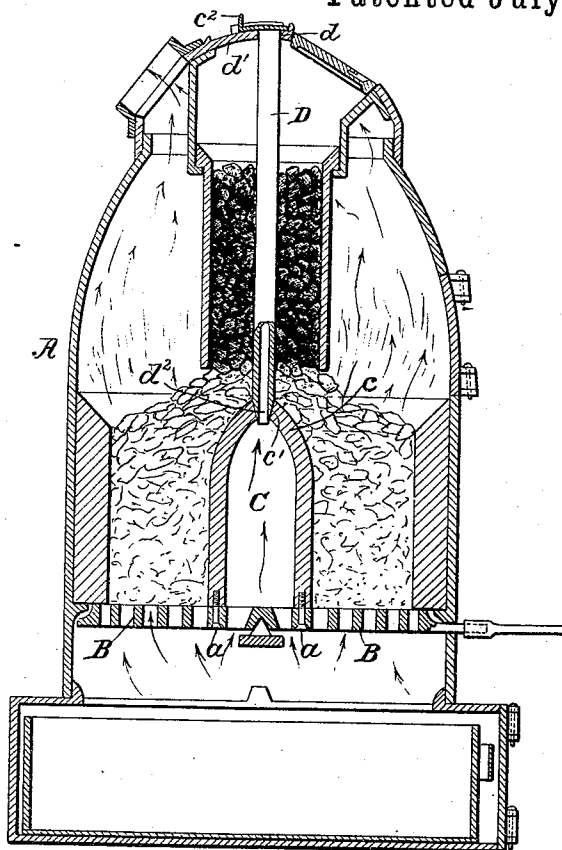
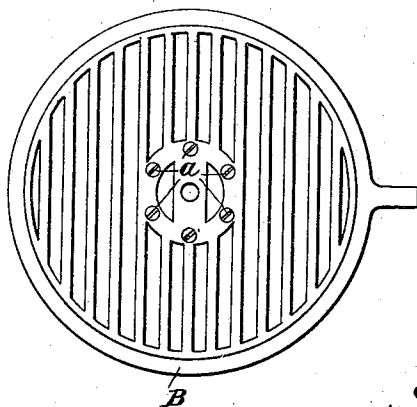


FIG. 2.



Attest:
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FUEL-SAVING ATTACHMENT FOR STOVE-GRATES.

SPECIFICATION forming part of Letters Patent No. 479,536, dated July 26, 1892.

Application filed June 11, 1891. Serial No. 395,897. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR STOCKER, a citizen of the United States, residing at Forest House, in the county of Potter and State of Pennsylvania, have invented certain new and useful Improvements in Fuel-Saving Attachments for Stove-Grates; 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention has relation to fuel-saving attachments for the grates of base-burning stoves, and the object is to economize coal and at the same time produce the greatest amount of heat; and to these ends the novelty consists in the construction, combination, and arrangement of parts of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same letters of reference indicate the same parts of the invention.

Figure 1 is a vertical sectional elevation of a heating-stove, showing my fuel-saving device applied thereto; and Fig. 2 is a bottom plan view of the grate removed from the stove, showing the manner of attaching fuel-saving devices thereto.

A is an ordinary form of cylindrical heating-stove.

B is the grate, and secured thereto by screws *a* is a cast-iron shell C, the upper or conical end *c* of which is provided with a wrought-iron tube D, terminating in a socket *d* in the top plate *d'*, which permits the tube to rotate in connection with the shell C, and as the grate is rotated to shake the ashes down, the grate, shell, and tube rotate together. The lower end *d²* of said tube D is tapering in form and is seated in a correspondingly-

shaped hole *c'* in the conical end *c* of the shell C, and the plate *d'* is provided with a sliding valve *c²*, by means of which the mouth of said tube D may be opened or closed at will.

It is a well-known fact that the combustion in a stove is greatest in the center of the fire-box, and as this central heat is not radiated to advantage, but passes off and out through the draft-channels to the stove-pipe, it is consequently lost. In my invention the central space in the fire-box is filled by the shell, less coal is consumed, and the same amount of heat is obtained, while the air by passing through the shell is heated and by means of the valve *c²* permitted to escape into the room and thereby utilized.

Should the shell, tube, or grate burn out, either one may be replaced independently of the others, thus dispensing with the necessity of replacing the whole should only one of them be rendered useless.

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

In a fuel-saving attachment for stoves, the combination of a stove-body having a shaking-grate and an upwardly-projecting conical shell connected to the central or middle portion of the grate and provided in its apex with a tapered hole or seat *c'*, a tube D, tapered at its lower end *d²*, seated in the tapered hole or seat *c'* of the conical shell and extending up through the fuel-magazine, and a slide-valve *c²*, connecting with the top plate of the stove and adapted to open and close the upper end of the tube D, substantially as specified.

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

ARTHUR STOCKER.

Witnesses:

J. W. TEENIER,
F. J. WELCH.