

(No Model.)

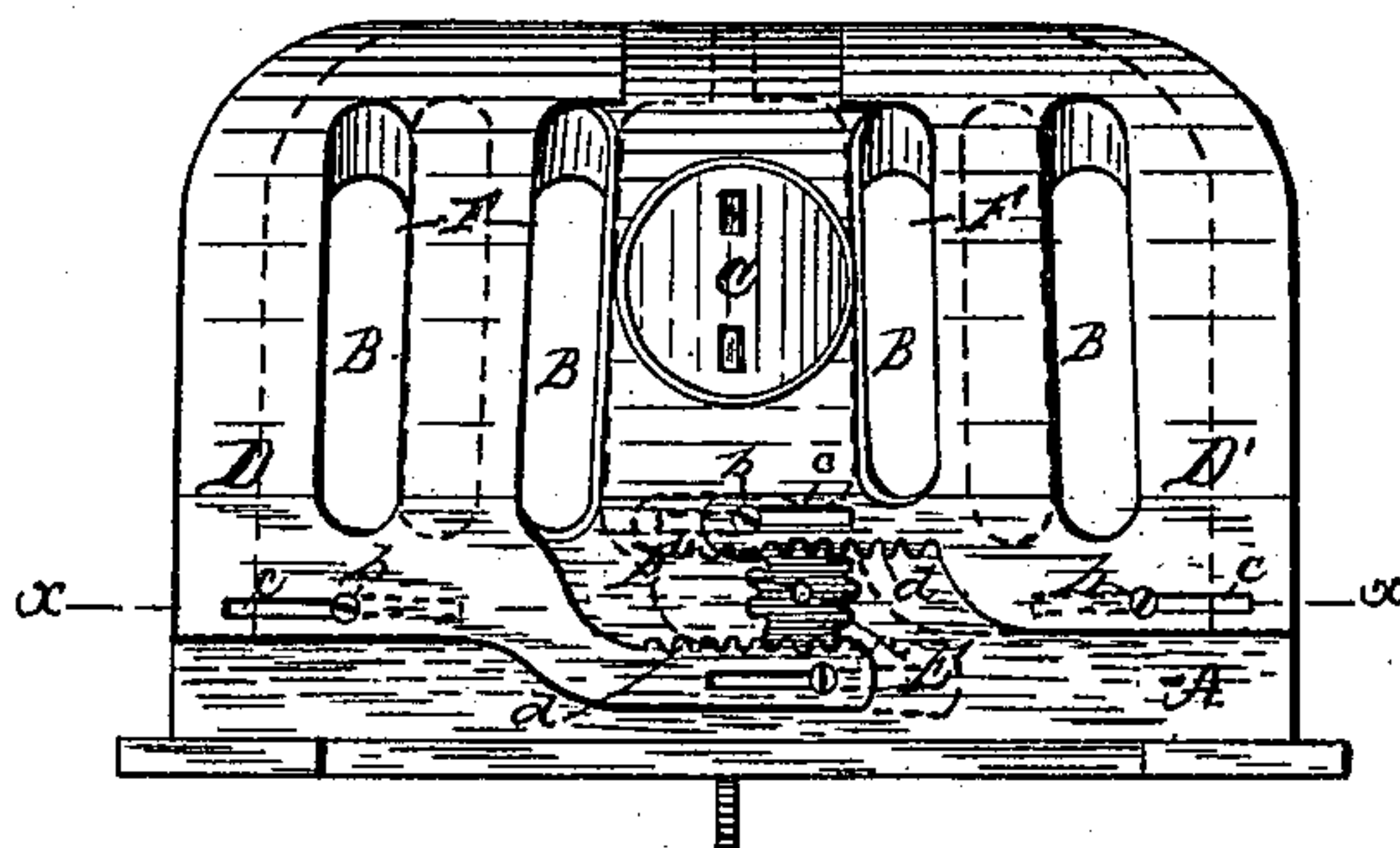
E. A. JACKSON.

STOVE DAMPER.

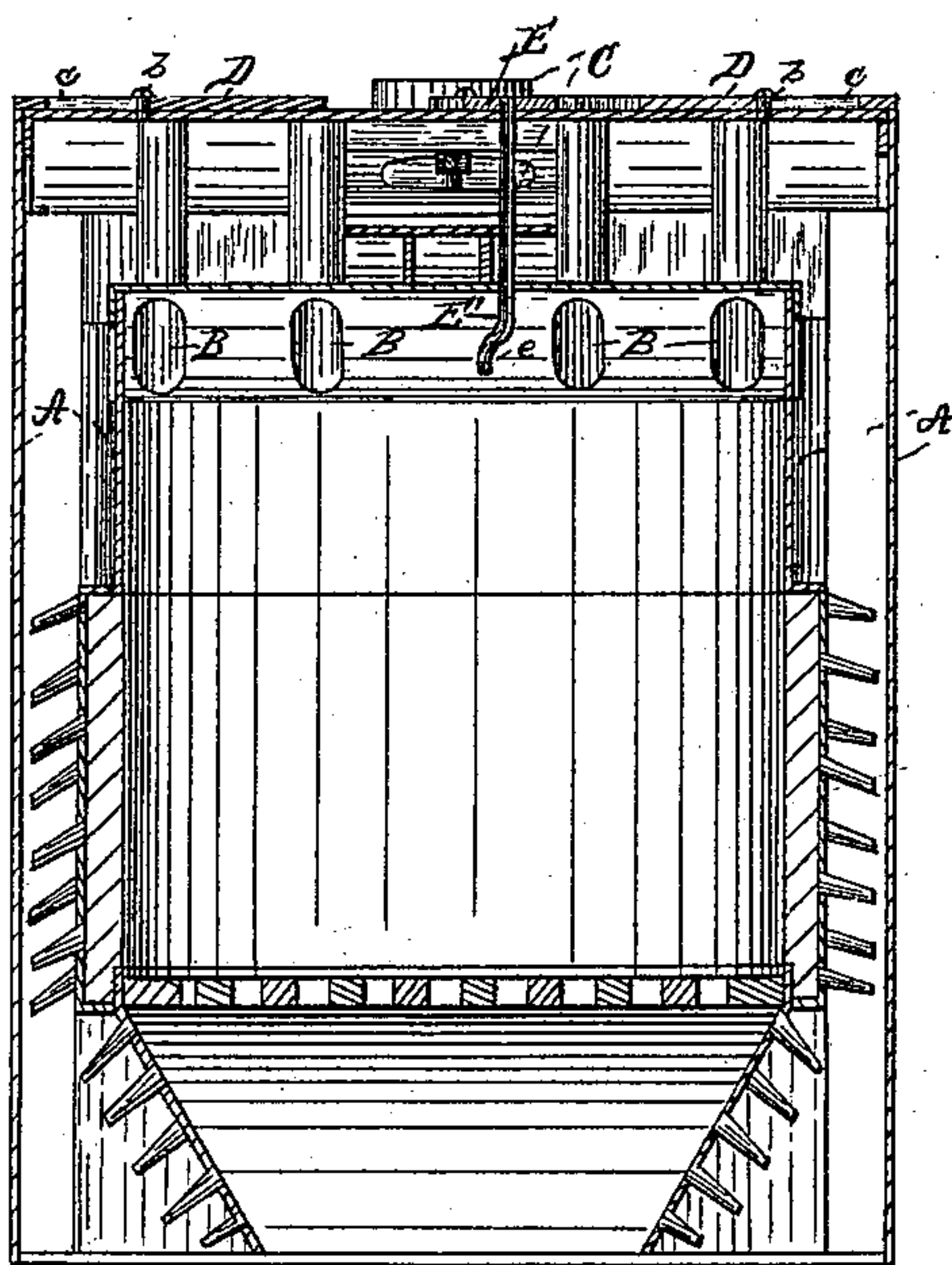
No. 354,704.

Patented Dec. 21, 1886.

*Fig. 1.*



*Fig. 2.*



Witnesses

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# UNITED STATES PATENT OFFICE.

EDWIN A. JACKSON, OF NEW YORK, N. Y.

## STOVE-DAMPER.

SPECIFICATION forming part of Letters Patent No. 354,704, dated December 21, 1886.

Application filed April 3, 1886. Serial No. 197,629. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN A. JACKSON, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Stove-Dampers; 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 and figures of reference marked thereon, which form a part of this specification.

My invention is an improvement in dampers for ventilating-grates and heating apparatus of a kindred nature, the object being to provide an improved, novel, and simplified construction, which will be easy of operation and readily accessible at all times, and whereby a central pipe for conducting heat to other apartments may be located upon said heating apparatus without interfering with the operation or efficiency of said damper; and my improvements consist, essentially, in providing the smoke flues or openings in the top of the heating apparatus with a sliding damper formed of two parts or sections, each of which is movably connected to the top of said smoke flues or openings, and provided with rack-bars which are adapted to be operated by an intervening small pinion from the upper part of the open grate or fire-box in such manner that the rotation of the said pinion in one direction serves to close the smoke flues or openings, while the rotation of the pinion in an opposite direction serves to open the same to give draft to the fire, all as will be hereinafter fully described, and specifically designated in the claims.

In the accompanying drawings, Figure 1 is a top plan view of my invention applied to a fire-place casing; and Fig. 2 is a longitudinal vertical section of the same on line *x x* of Fig. 1, viewed from the front.

Similar letters of reference indicate like parts in the several figures.

Referring to the drawings, A represents a heating apparatus having the upper portion thereof provided with a series of smoke flues or openings, B, arranged parallel to each other, and located, preferably, two in number upon

each side of a central vertical pipe, C, which conducts heat from said inclosing case or jacket A to other apartments.

The damper forming the essential feature of my present invention is made in two parts or sections, D D', each of which is composed of a metallic plate, having an elongated arm or projection, *d*, formed integral therewith, and provided with teeth upon one side thereof, as shown; said arms or projections *d* being arranged in opposite directions, parallel with each other, and located at such distance apart as to admit of the introduction between the same of a small pinion, E, the teeth of which engage with the teeth upon said arms or projections to move the said sections D D' back and forth to open or close the smoke flues or openings B. The metallic plates or sections D D', which may be of any desired shape to fit different patterns of heating apparatus, and provided with suitable draft-openings, F, are adjustably pivoted to the top of the inclosing case or jacket A, by means of headed bolts or screws *b*, adapted to work in elongated slots *c* upon the outer ends of the arms or projections *d*, and in the upper ends of the main body of said plates or sections, as fully shown in Fig. 2. The pinion E, which actuates the said plates or sections in either direction, is rigidly secured to the upper end of a vertical rod, E', which projects down through the top of the case or jacket A, directly over the grate or fire-pot, and is provided at its lower end with a bend or crank, *e*, which may be operated by the end of a poker to cause the pinion E to move the plates or sections in the desired direction to open or close the smoke flues or openings.

By means of my improved construction the damper is rendered capable of being operated in very narrow limits, and at the same time permits of the location of a central heat-conducting flue or pipe upon the top of the inclosing frame or jacket of a heating apparatus without interfering with the operation or efficiency of the damper.

While my improved device is intended more particularly for use in connection with the inclosing case or jacket of a ventilating-grate, yet it is equally applicable to other forms of heating apparatus, and such application is hereby contemplated by me.

Having thus described my invention, I claim as new and useful—

1. The combination of the heating apparatus having smoke-flues, a damper movably  
5 secured to and arranged to be reciprocated across the upper extremities of said flues and having apertures arranged to register there-  
with, and a toothed arm extending therefrom, a crank-shaft mounted in the said heating appa-  
10 ratus and carrying a pinion meshing with the teeth on the arm of the damper, substantially as shown and described.

2. The combination, with the heating appa-

ratus having the smoke-flues and bolts or screws *b*, the dampers having toothed arms and 15 elongated slots for adjustable connection to said smoke-flues, of the pinion and crank-shaft for operating the dampers simultaneously, as shown and described.

In testimony whereof I affix my signature in 20 presence of two witnesses.

EDWIN A. JACKSON.

Witnesses:

WM. M. JACKSON,  
S. K. J. THOMPSON.