

983,741.

Упр. 1.

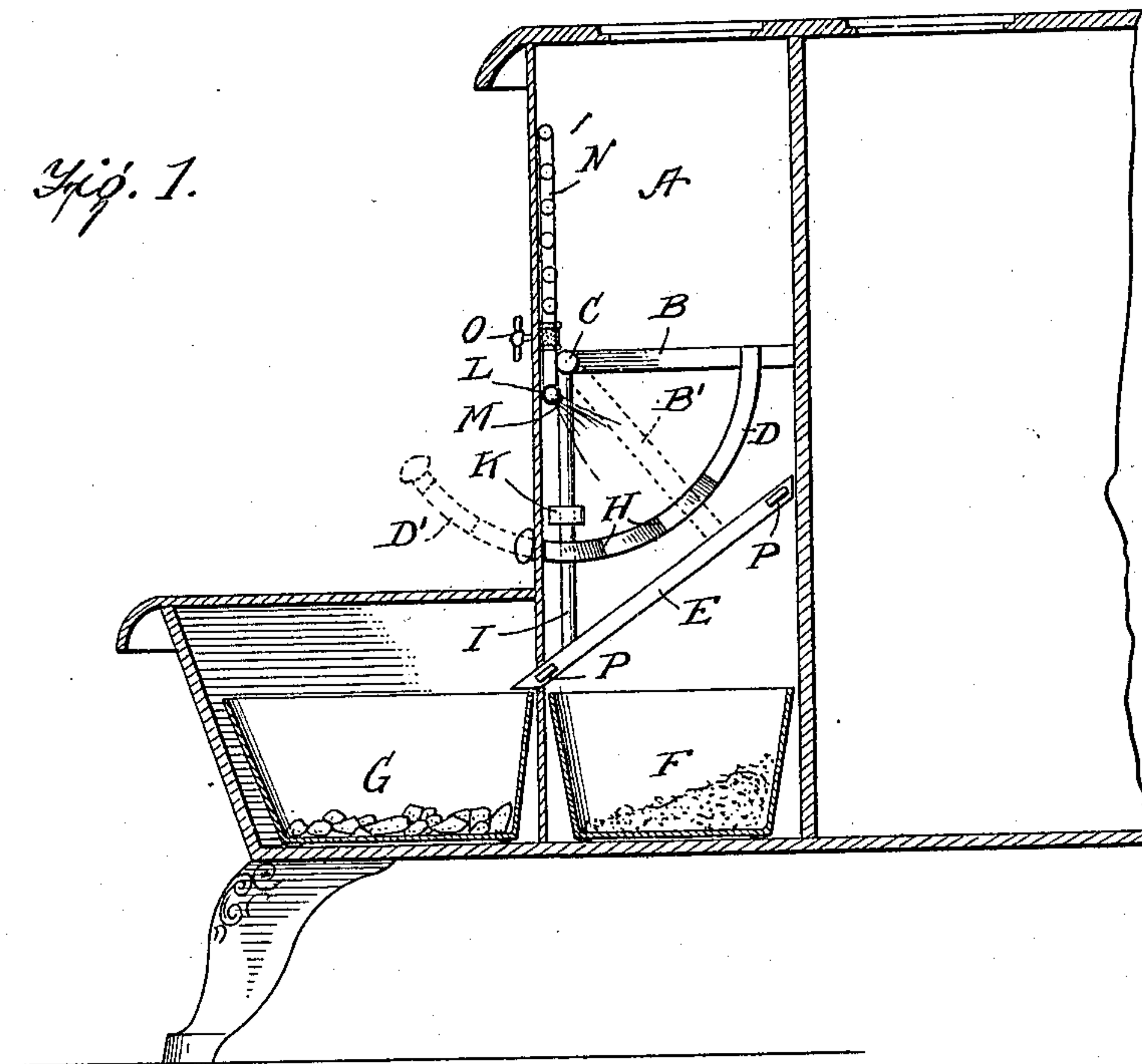
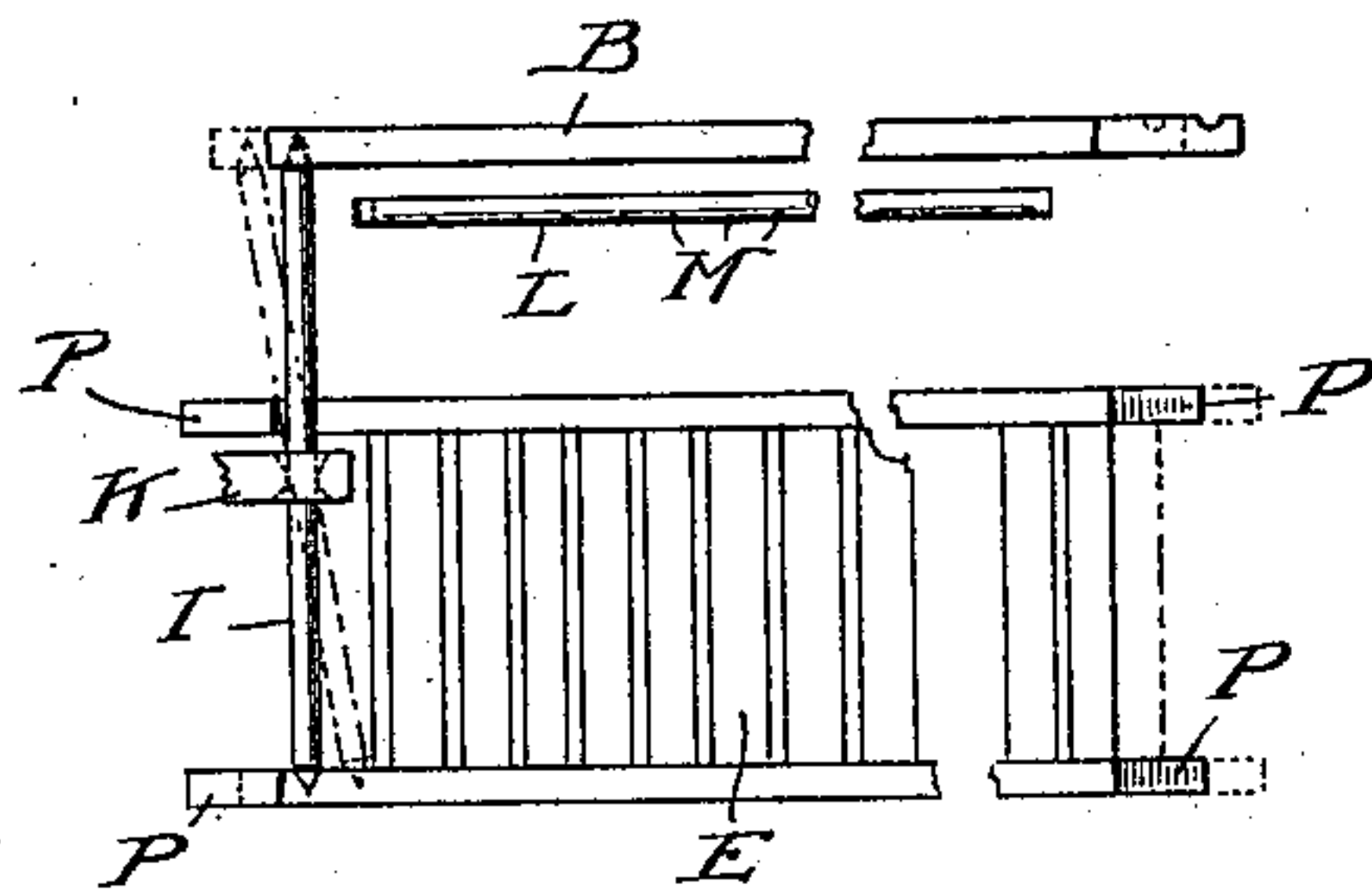
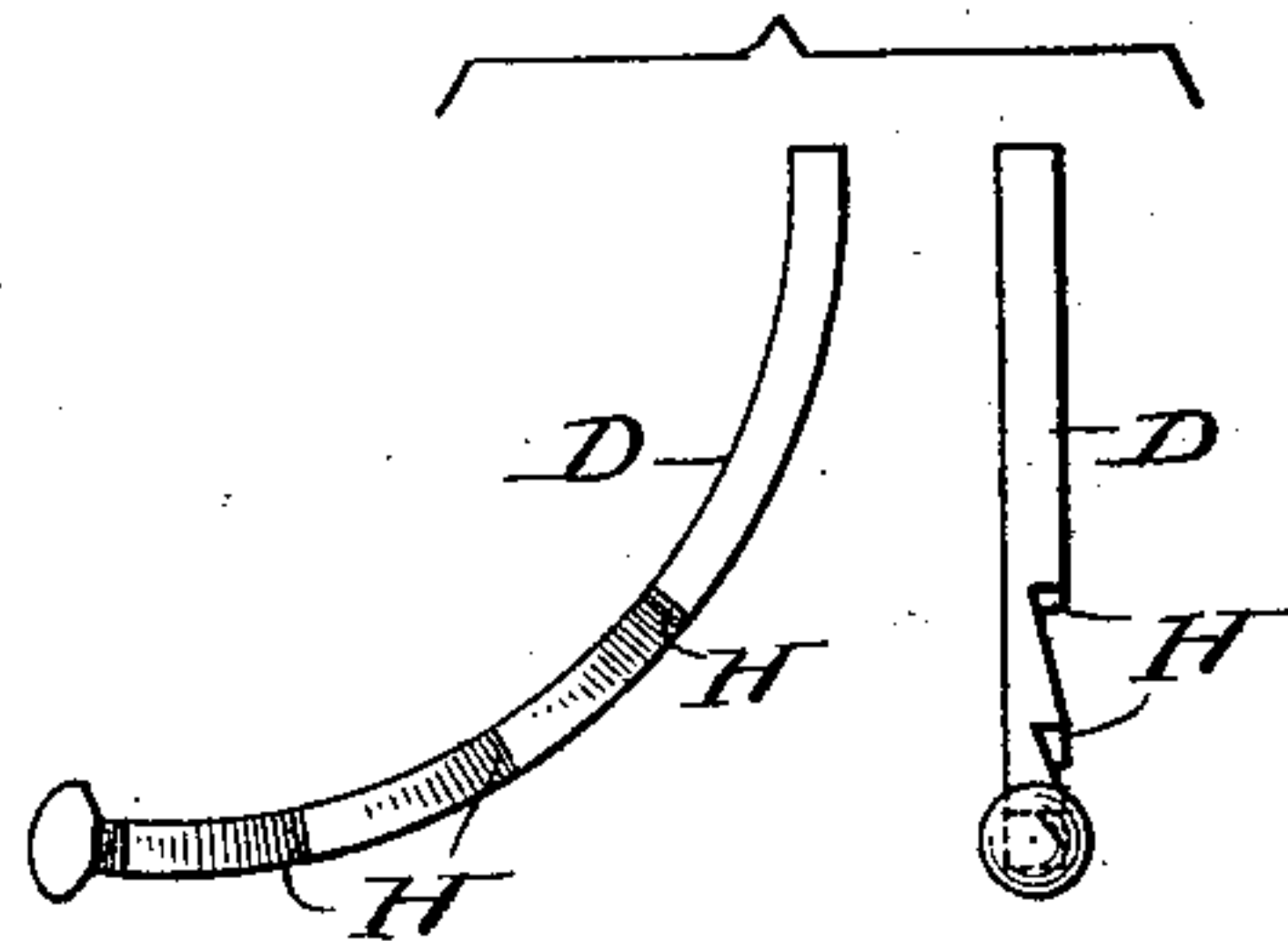


Fig. 3.



Упр. 2.



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# UNITED STATES PATENT OFFICE.

PETER McDONALD, OF LYNN, MASSACHUSETTS.

ASH-SIFTING STOVE.

983,741.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed April 4, 1910. Serial No. 553,278.

*To all whom it may concern:*

Be it known that I, PETER McDONALD, a citizen of the United States, residing at Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented a new and useful Ash-Sifting Stove, of which the following is a specification, 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 drawing, and to letters of reference marked thereon, which form a part of this specification, in explaining its nature.

The invention relates, specifically, to improvements in combination grate and ash-sifting devices, and has for its objects: 1st. To avoid the dust and other inconveniences of ash sifting. 2nd. To insure by automatic means the strictest economy in fuel consumption, and to secure other advantages and results some of which may hereinafter be referred to in connection with the description of the various parts. I attain these objects by the method shown in the accompanying drawing in which—

Figure 1 shows a section of a kitchen stove with my improved device therein. Fig. 2 shows in detail the grate supporting arms. Fig. 3 shows the sifting screen.

In Fig. 1, A shows the fire box of the stove, B shows the grate, C shows the pivot on which the grate turns, D shows the curved supporting arms which hold the grate in position, and by the releasing of which the grate, turning on the pivot C, is let down or dumped, E shows an ash sifting screen upon which the ashes fall when the grate B is let down or shaken, said screen being positioned so as to incline downward from the rear to the front end thereof, F shows a holding receptacle into which the ashes fall as they pass through the screen E, G shows the receptacle into which the coal and cinders fall as they roll or slide down the screen E.

It will be understood that as the grate B is dumped or shaken and the ashes fall upon the screen E the finer portion thereof will, in rolling down the incline, fall through the screen and into the ash receptacle F, while the portion which is too large to pass through the screen E will roll on to the receptacle G, from which it may be easily transferred or shoveled into the fire box A for further consumption.

The supporting arms D have a series of

notches H, which engage with the wall of the openings in the front wall of the fire-box A through which said arms project. The grate is lowered by releasing the arms D from the said wall, whereupon the grate B falls to the position B<sup>1</sup>, and the supporting arms D to the position D<sup>1</sup>.

One of the advantages in an ash sifting stove, of a grate dumping in the manner described is that the ashes and cinders are thereby thrown upon the highest portion of the sifting screen E, thus securing the full benefit of the incline thereof, so that they may be more fully sifted before they reach the receptacle G. To further facilitate and expedite this sifting process I have provided a leverage arm I fulcrumed intermediate its length in a stationary bearing K and projecting, at its top, between two of the grate-bars and, at its bottom, into the screen E. By means of this connecting arm I, the screen E is given a reciprocating motion when the grate B is shaken back and forth.

To insure freedom from dust I have provided a sprinkler pipe L, underlying the pivot C of the grate B. The sprinkler pipe is connected with the hot water front N, and is provided with small openings or holes M, through which the water may be distributed, the supply being regulated by the tap O.

In Fig. 2, which shows the grate sustaining arm in detail, H shows the notches which engage at the front of the stove and hold the grate in position.

In Fig. 3, the working of the leverage arm I and fulcrum joint K is shown in detail, I<sup>1</sup> being the position of the arm when the grate is pushed in. In its reciprocal motion the screen E slides upon the flanges P.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a stove, a grate pivotally supported at the front thereof, curved, movable supporting-members engaging said grate at the rear thereof, means for normally maintaining said members against movement, said members being releasable to dump the grate, a screen disposed beneath the grate, and an arm projecting at its top through said grate, and at its bottom, into said screen, and being pivoted intermediate of its length.

2. In a stove, a grate pivotally supported at the front thereof, curved, movable, supporting members engaging said grate at the



rear thereof, means for normally maintain-  
ing said members against movement, said  
members being releasable to dump the grate,  
and a screen disposed beneath the grate and  
5 positioned so as to incline downward from  
the rear to the front end of the screen.

3. In a stove, a grate pivotally supported  
at the front thereof, curved, notched, movable  
supporting-members engaging said grate at  
10 the rear thereof and projecting through the  
front wall of the stove, a screen disposed be-

neath the grate, an arm projecting at its  
top through said grate and, at its bottom, into  
said screen, and being pivoted intermediate  
of its length.

In witness whereof I have hereunto set  
my hand in the presence of two subscribing  
witnesses.

PETER McDONALD.

Witnesses:

CHARLES W. LOVETT,  
ELSA M. SMERLING.