

A. N. HOUSSEE.  
Grate for Stoves.

No. 161,790.

Patented April 6, 1875.

Fig. 1.

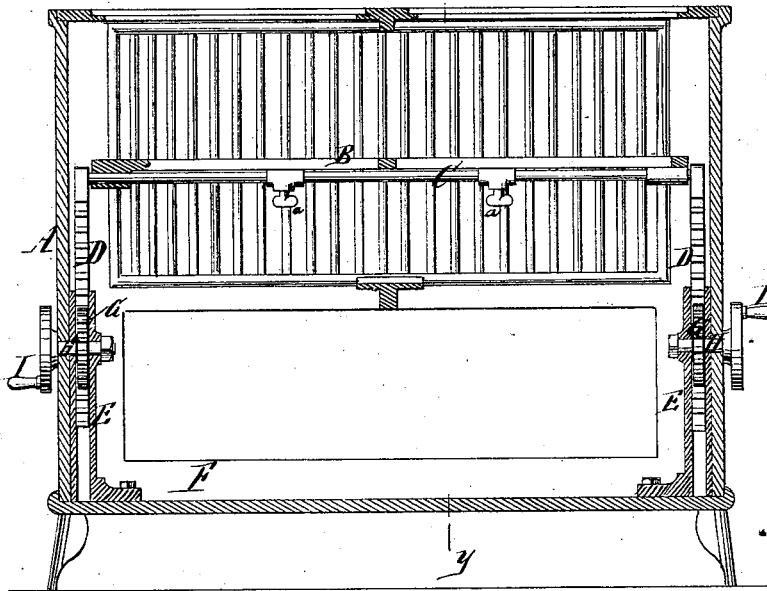


Fig. 2.

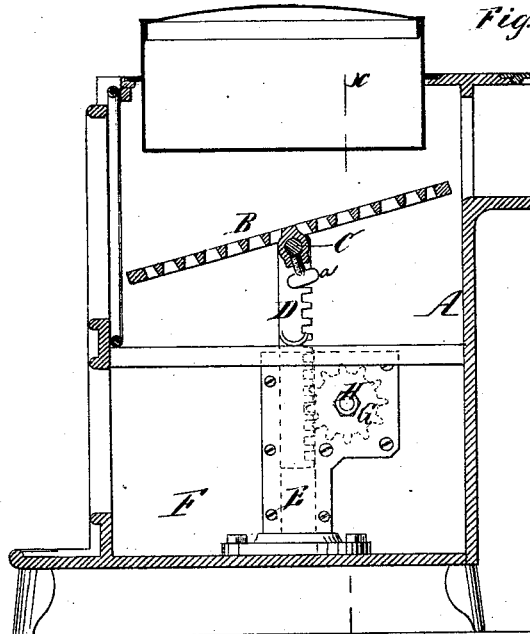
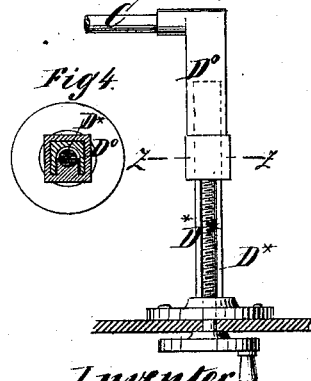


Fig. 3.



E. Bilhuber }  
Chas. Wahler. } Witnesses.

Inventor:  
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per  
Van Santvoord & Hauff  
Attys

# UNITED STATES PATENT OFFICE.

AMBROSE N. HOUSSÉE, OF NEW YORK, N. Y.

## IMPROVEMENT IN GRATES FOR STOVES.

Specification forming part of Letters Patent No. 161,790, dated April 6, 1875; application filed March 4, 1875.

*To all whom it may concern:*

Be it known that I, AMBROSE N. HOUSSÉE, of the city, county, and State of New York, have invented a certain new and useful Improvement in Stoves, of which the following is a specification:

This invention is illustrated in the accompanying drawing, in which—

Figure 1 represents a vertical section in the plane  $x x$ , Fig. 2, and looking in the direction of the arrow opposite to that line. Fig. 2 is a vertical section in the plane  $y y$ , Fig. 1. Fig. 3 is a detached elevation of the lifting mechanism in a modified form. Fig. 4 is a horizontal section of the same in the plane  $z z$ , Fig. 3.

Similar letters indicate corresponding parts.

This invention relates to that class of grates for stoves which are provided with a mechanism for raising or lowering the same, in order to bring it nearer to or farther from the top plate of the stove, in order to regulate the heat and the consumption of fuel.

My invention consists in the combination, with a grate provided with a raising and lowering mechanism, of a traverse secured to the lifting mechanism, and carrying the said grate, whereby the grate can be turned to dump the fire, whatever the elevation of the grate may be, as will hereinafter be described in detail.

In the drawing, the letter A designates an ordinary cooking-stove, the grate B of which is supported by a traverse, C. The ends of this traverse are supported by rack-bars D, which are fitted in guide-boxes E, secured to the sides of the ash-chamber F of the stove. In these guide-boxes are contained pinions G, which are mounted on shafts H and gear into the rack-bars D. The shafts H extend through the sides of the stove, and on their outer ends are secured cranks I, by means of which said shafts can be turned. By turning the shafts H, or either of them, in the proper direction, the rack-bars D are moved upward, and the

grate can be adjusted at any desired elevation. Instead of rack-bars and pinions, any other suitable lifting mechanism can be employed for elevating the grate, such, for instance, as screws D\*. (See Figs. 3 and 4.) These screws extend through the bottom of the ash-chamber, and they are turned by suitable hand wheels or cranks. They act on slides D<sup>o</sup>, to which is secured the traverse C that carries the grate B. Said grate is fastened to the traverse by one or more set-screws,  $a$ , and the traverse is round, so that, by releasing the set-screws, the grate can be turned and the fire dumped without difficulty.

The advantages of this class of inventions consist in the fact that, by raising or lowering the grate, the fire can be brought closer to or farther from the article to be heated. If it is desired to heat a vessel supported in the top plate of the stove with the least possible amount of fuel, the grate is raised, and by kindling a wood fire on the grate the vessel can be heated very quick, and at the same time the stove is but slightly heated. When it is desirable to heat the stove the grate is lowered.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, with a stove-grate provided with mechanism for raising and lowering the same, of a traverse connected at its ends with the said raising and lowering mechanism, and carrying the grate which is journaled thereon, substantially as described, whereby the grate can be turned to dump the contents, whatever the elevation of the same may be, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 24th day of February, 1875.

AMBROSE N. HOUSSÉE. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.