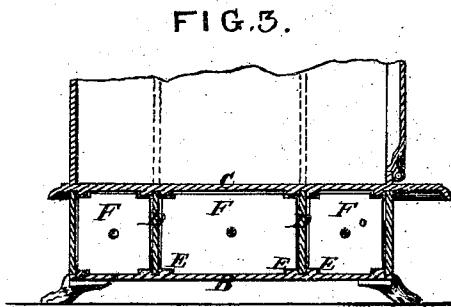
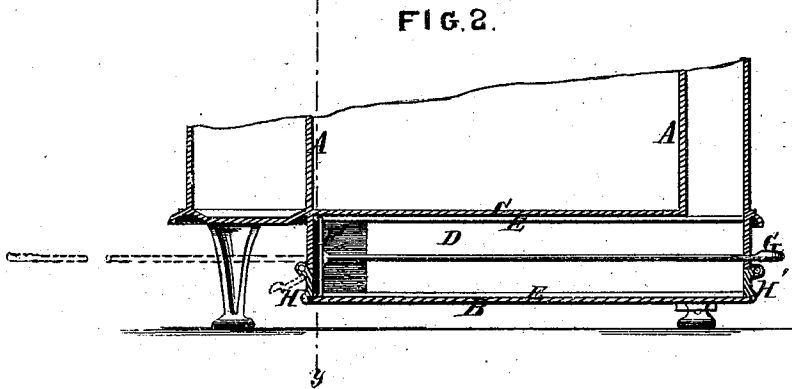
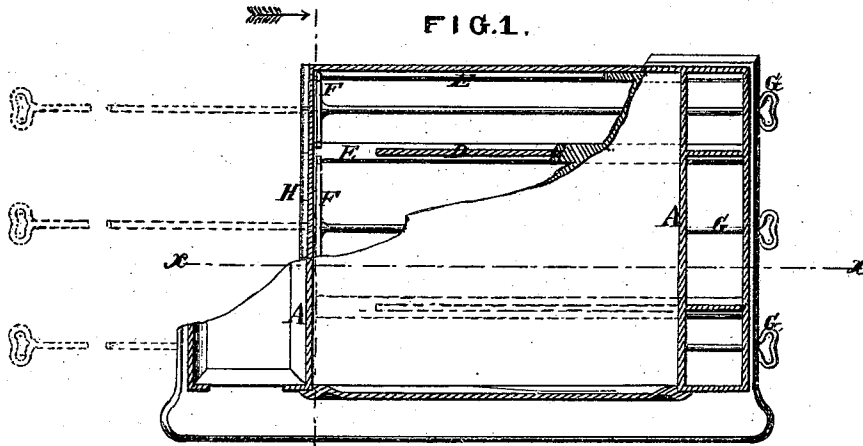


*H.L. Palmer,*

*Flue Cleaner.*

*No. 108,726.*

*Patented Oct. 25, 1870.*



WITNESSES.

*E. Schmitt*  
*Wm. H. Bennett*

*Inventor:*

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*by Knight Bros*  
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# United States Patent Office.

HENRY L. PALMER, OF STILLWATER, NEW YORK.

Letters Patent No. 108,726, dated October 25, 1870.

## IMPROVEMENT IN FLUE-CLEANERS FOR COOKING-STOVES.

The Schedule referred to in these Letters Patent and making part of the same

I, HENRY L. PALMER, of Stillwater, in the county of Saratoga and State of New York, have invented certain Improvements in Flue-Cleaners for Cooking-Stoves, of which the following is a specification.

### *Nature and Objects of the Invention.*

My invention relates to what are known as "three-flue" cooking-stoves, and consists in arranging and guiding scrapers in the flues of such stoves in such a manner that they will not be interfered with by the flue-strips thereof, and in extending to the ends of stove the ribs ordinarily cast on the stove-plates to support the flue-strips, so that such ribs will form guides to prevent any obstruction or displacement of the scrapers.

### *Description of the Accompanying Drawing.*

Figure 1 is a horizontal section of a cooking-stove, illustrating my invention.

Figure 2 is a vertical longitudinal section of the lower part thereof at  $x x$ , fig. 1.

Figure 3 is a transverse section of the same at  $y y$ , figs. 1 and 2.

### *General Description.*

My invention is applicable to three-flue cooking-stoves of all forms and construction. The general arrangement and construction of the stove, therefore, need not be described.

A are the walls, and

B the base of the stove.

C is the upper plate of the lower horizontal flues, forming the floor of the oven.

D D represent the ordinary flue-strips, forming the dividing walls between the flues in the base of the stove.

These strips are supported by ribs, E E, cast upon the inner surfaces of the plates B and C; that is to say, on the upper surface of the plate B and on the lower surface of the plate C, in the usual manner.

But instead of having the said ribs terminate at some distance from the front of the stove, as do the flue-strips D, in order to leave openings between the side and center-flues, I extend the said ribs to the front of the stove, and also to the back at top, as well as at bottom, in order that they may form guides for my flue-scrapers.

F F are the scrapers.

These consist of plates occupying the whole diameter or section of the respective flues, and notched at the corners to adapt them to fit and be guided by the ribs E.

To the scrapers are attached rods or handles, G G, for moving them.

The said rods extend out through the front or back of the stove according as the particular construction of the stove may render more convenient.

H H' are doors for the discharge of soot and ashes.

I prefer to employ one door at front and one at back of the stove, as here represented, but do not limit myself to this.

One such door located either at front or back may suffice, if preferred, or if a second door be used it may be made of smaller size and of different shape, its only office being to discharge any small accumulation of ashes and soot which may fall behind the scraper in the event of its not being set back completely to its proper place.

### *Operation.*

At all times when not in use the rods G G are pushed in as far as possible, so that the scrapers will rest close to and against the front or back of the stove, as the case may be. There is thus little or no opportunity for ashes to fall behind them.

When the flues need cleaning the door H or H' is opened and the rods G drawn out in succession, the effect of which is to draw the scrapers the entire length of the flue and discharge any accumulation of soot and ashes through the open door. If there be any accumulation behind the scraper it may be discharged in like manner at the backward movement if opposite door be opened.

The extension of the ribs E completely to the ends of the stove forms an important part of my invention, because I am thus enabled, without any additional expense or difficulty, to guide the scrapers throughout their whole motion and prevent the possibility of their catching against the ends of the flue-strips in careless or unskillful hands.

I thus provide, at a very trifling cost, an efficient and convenient means of keeping clean the base-flues of stoves, and one which no one, however careless or dull, can fail to use in a proper manner.

I am aware that it has been proposed to use flue-scrapers as permanent parts of a broad-flue stove, and I, therefore, do not claim this as my invention; but I do not know of any device, previous to my own, which is adapted for use in three-flue cooking-stoves.

The well-known peculiarities of construction in this class of stoves render it impossible to practically apply permanent scrapers thereto without some special contrivance, such as I have devised, to cause them to work freely without obstruction to the motion of the scrapers in the act of cleaning.

### *Claims.*

I claim as my invention—

1. The flue-scrapers F F F, when combined with

a three-flue cooking-stove in the manner herein described, with guides of any suitable form.

2. The ribs E E, supporting the flue-strips D, and extended to the front of the stove, in combination with the flue-scrappers F F F, arranged to operate as specified.

3. The combination, in a three-flue cooking-stove,

of the scrapers F G, guides E, and openings H H', both at front and rear, as and for the purposes set forth.

H. L. PALMER.

Witnesses:

H. C. ELLIOTT,  
OCTAVIUS KNIGHT.