2 Sheets--Sheet 1.

W. DOYLE.

Parlor Cook Stove.

No. 165,920. Patented July 27, 1875.

Fig. 1.

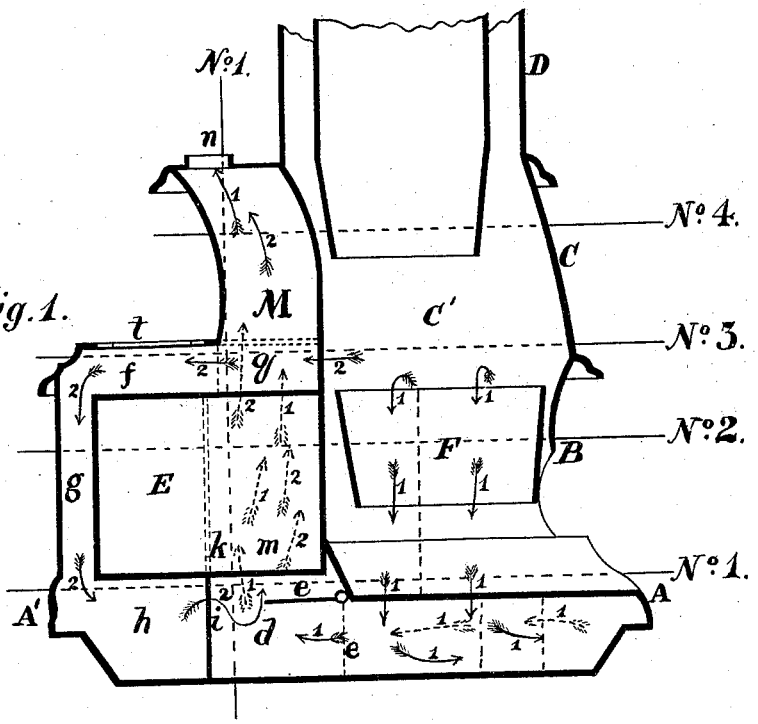
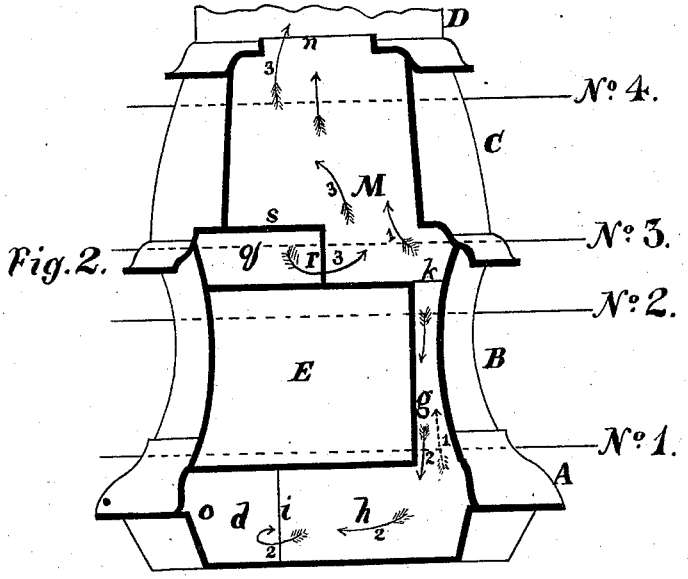


Fig. 2.



Witnesses: James Wright, Edward W. Doyle

Wm. Doyle

Inventor.

W. DOYLE.

Parlor Cook Stove.

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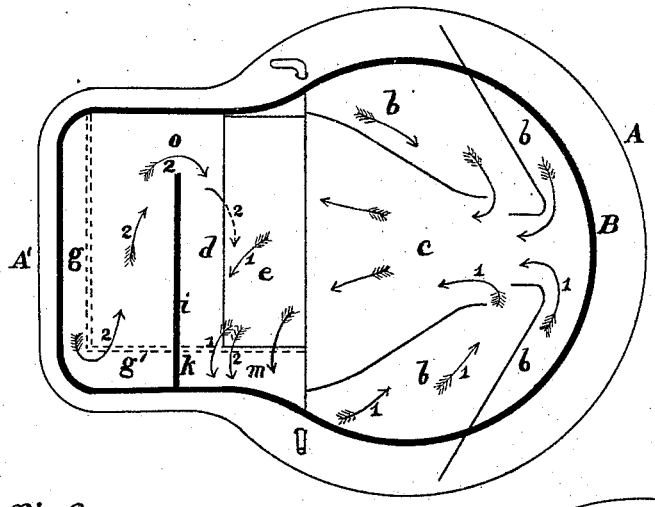


Fig. 3.

Fig. 4.

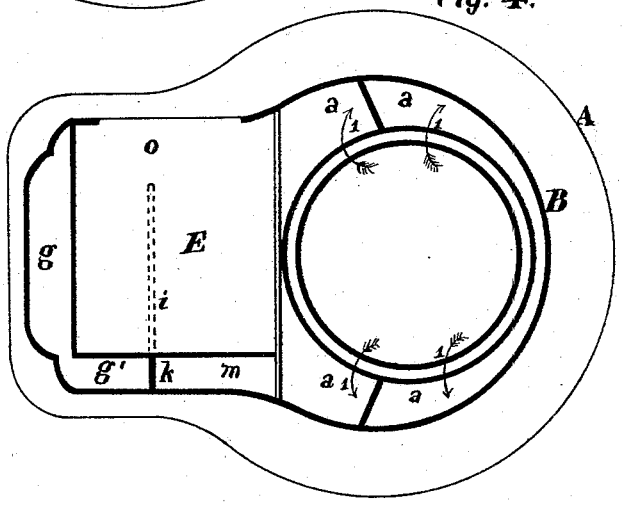


Fig. 6.

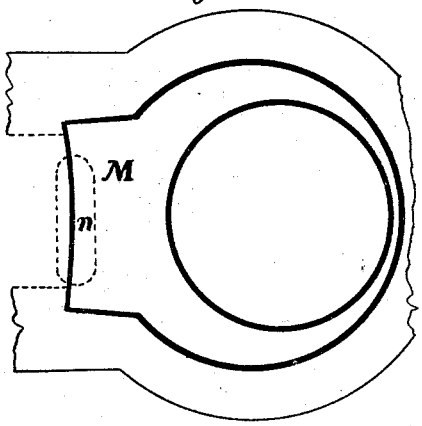


Fig. 7.

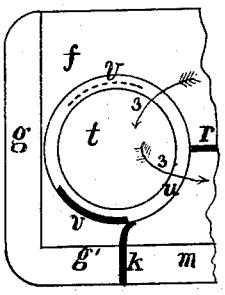


Fig. 5.

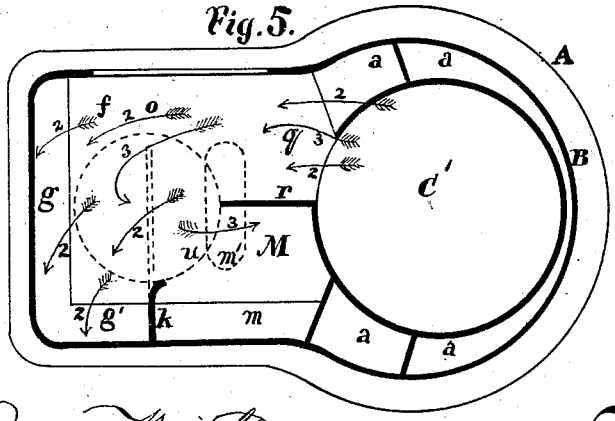
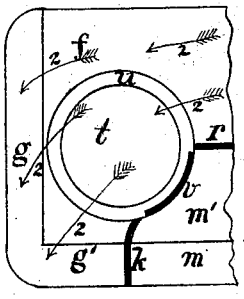


Fig. 8.



Witnesses: James Wright, Edward H. Doyle.

Wm. Doyle

Inventor.

UNITED STATES PATENT OFFICE.

WILLIAM DOYLE, OF ALBANY, NEW YORK.

IMPROVEMENT IN PARLOR COOK-STOVES.

Specification forming part of Letters Patent No. **165,920**, dated July 27, 1875; application filed May 31, 1875.

CASE B.

To all whom it may concern:

Be it known that I, WILLIAM DOYLE, of the city and county of Albany, State of New York, have invented certain Improvements in Parlor Cook-Stoves; and I do hereby declare that the following is a description thereof, reference being had to the accompanying drawings in two sheets, forming a part of this specification, in which—

Figure 1 represents a sectional elevation, taken from front to rear, illustrating the improvements in this invention. Fig. 2 is a sectional elevation in the transverse, taken at line No. 1 in Fig. 1. Fig. 3 is a plan view of the base, taken at line No. 1 in Fig. 1. Fig. 4 is a plan view at line No. 2, Fig. 1. Fig. 5 is a plan view at line No. 3, Fig. 1. Fig. 6 is a plan view at line No. 4, Fig. 1. Figs. 7 and 8 are plan views of the ring-damper, illustrating the same variously set for different operations.

My invention relates to parlor cook-stoves having an oven and pot hole or holes located at the rear side of the stove proper; and consists of the several devices or parts and their combinations, hereinafter described, whereby the heating-stove proper may be employed for warming a room without materially effecting a heating of the oven; or the oven may be highly heated for baking purposes without the stove proper becoming highly heated; or a vessel placed on the pot-hole may be operated with for boiling, frying, or broiling without the oven or with the same in operation, or with the stove proper operating to warm a room; or the several parts may be simultaneously heated for warming, baking, or other cooking purposes.

To enable others skilled in the art to make and use my invention, I will proceed to describe it in reference to the drawings and letters of reference marked thereon, the same letters indicating similar parts.

In the drawings, A represents the base-section of the stove. B is the fire-pot and ash-pan section. C is the combustion-chamber section. D is the reservoir-section, and together the said several sections form the stove proper for warming purposes, which may be made with any desired form of outline and ornamentations. The base-section A is made with an extension, A′, as in a former invention secured to me by Letters Patent, and has placed over it the oven E, located at the rear of the fire-pot F, and about on a plane in its top portion with the top of the said fire-pot. The stove proper is provided with side flues *a a*, one or more on a side between the outer casing and the fire-pot, and leading into the base through the flues *b b* to the central flue *c*. The said central flue discharges into the flue *d* below the oven, and may be opened or closed to the same by the damper *e*, Figs. 1 and 3. Over the oven is made the horizontal flue or chamber *f*, and at the rear the descending flue *g*, which flue is extended around to one side of the oven, and forms an angle, *g′*, of the said descending flue, as shown. The said descending flue *g g′* communicates from the top flue *f* to the rear horizontal flue *h* beneath the oven. A flue-strip, *i*, separates the said rear horizontal flue *h* from the front horizontal flue *d*, and a communication is had from the former to the latter flue through the opening *o*, Figs. 2 and 3. Leading from the horizontal flue *d* at a side of the oven, and adjoining the angle *g′* of the descending flue, and separated by the flue-strip *k*, is the side ascending flue *m*, which ascending flue communicates with the larger ascending flue M at the rear of the combustion-chamber, and leads to the exit *n*. Leading from the combustion-chamber C′ of the stove proper into the top horizontal flue or chamber *f* is the top flue *q*, the side walls of which on one side are formed by the wall of the casing of the stove, and on the other side by the plate *r*, while the top wall is formed by the plate *s*, as shown in Fig. 2. The said top flue being thus formed is located at the base of the ascending flue M, and is adjoining to the same at its bottom and side, as shown, so that the hot gases passing from the combustion-chamber C′ to the top horizontal flue will highly heat the plates *r* and *s*, and thereby highly heat the ascending flue at a point a little below the exit *n*, and thereby stimulate the draft of the stove by highly rarefying the gases ascending in the enlarged flue M, just below the exit. The pot-hole *t*

made in the top plate of the flue *f* is provided with a ring, *u*, Figs. 1, 5, 7, and 8, carrying a damper, *v*, which may be set to any desired position, as shown by full and dotted lines in the said figures.

In operating with this improved stove for the several purposes intended, the several directions of draft of the hot gaseous products of combustion from the combustion-chamber to the exit may be regulated by the ring-damper *u v* and base-damper *e*.

To direct the hot gases into the base of the stove proper to heat the same for warming rooms, the damper *e* is to be turned open, as in Figs. 1 and 3, and the ring-damper is to be turned to the position shown by dotted lines in Fig. 5 and full lines in Fig. 8, to close the opening *m'* to the ascending flue M, when the hot gaseous products will be made to pass from the combustion-chamber C' down the side flues *a a* into the base-flues *b b* and *c*; thence into the horizontal flue *d* for passage to the ascending flue *m*, and up said ascending flue to the more extensive ascending flue M, and from the same through the exit *n*, as indicated by arrows No. 1 in Figs. 1, 2, 3, and 4.

When it is desired to heat the oven only, and divert all the hot gases from the base of the stove proper, the base-damper *e* is to be turned closed, as shown by dotted lines in Fig. 1, and the ring-damper is to be set, as shown in Fig. 8, to close the opening *m'* to the ascending flue M, when the hot gases may be made to pass from the combustion chamber C' through the top flue *q* (and highly heat the bottom of the said ascending flue, and thereby increase its draft by stimulation by heat) into the horizontal flue or chamber *f*; thence down the descending flues *g g'* into the lower horizontal flue *h*, and from thence pass through the opening *o* into the horizontal flue *d*, and from the same into the side ascending flue *m*, and upward from the same into the flue M to the exit *n*, as indicated by arrows 2 in Figs. 1, 3, 5, and 8, in which passage the hot gases drawn from the combustion-chamber will heat the oven and top plate, and not the base of the stove proper.

When it is desired to heat the top plate of the horizontal flue or chamber *f*, and any vessel sitting in the pot hole or holes, the ring *u* is to be turned so as to carry the damper-plate *v* from the opening *m'* to the ascending flue to any desired position, as shown in Fig. 7 by full or dotted lines, or to any other position that will open a communication from the chamber *f* to the base of the enlarged ascending flue M, when the hot gases will pass in the direction indicated by arrows 3 in Figs. 2, 5, and 7.

When it is desired to cause a portion of the hot gases to descend into the base of the stove proper, and another portion to pass around the oven, the damper *e* is to be opened, as in Fig. 1, and the ring-damper is to be turned so as to partially close the opening *m'* to the ascending flue M, in which case the draft will cause the hot gases to be divided in their volume into two currents, one moving substantially as indicated by arrows 1, and the other as indicated by arrows 2.

When the damper in the base is closed, and the ring-damper is set to partially close the opening *m'* to the ascending flue M, one portion of the hot gases will be made to pass around the oven, as indicated by arrows 2, and another portion will be made to pass direct from the chamber *f* to the ascending flue M, as indicated by arrows 3, while the base of the stove proper will be slightly heated.

It is evident that by these improvements the stove is rendered capable of a variety of operations with the heat generated by the combustion of the fuel, so as to be in readiness at all times for warming rooms, baking, or roasting, or for boiling, broiling, frying, and other processes in cooking, and is rendered advantageous for either winter or summer use.

It is to be understood that I do not confine my improvements to stoves having a small oven and a single pot-hole, as it is evident that the oven may be enlarged and the number of pot-holes may be increased to render the stove capable of being employed in large families for general cooking as well as for heating purposes.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A heating-stove proper having flues for a revertible draft into and from the base, and an oven located at the rear, a top flue, *q*, horizontal flue *f*, descending flues *g g'*, horizontal flues *h* and *d*, separated by a flue-strip, ascending flues *m* and M, damper *e*, and ring-damper *u v* at the opening *m'*, combined to operate substantially as and for the purpose set forth.

2. A heating-stove proper, top flue *q*, flue or chamber *f*, ascending flue M leading from the flue *f*, descending flues leading down the sides of the oven into a horizontal flue beneath the oven, and to an ascending flue leading to the flue M and damper to open or close the opening *m'* to the flue M, combined to operate substantially as and for the purpose set forth.

3. A heating-stove proper having descending and base flues for a revertible draft into the lower portion of the said stove, top flue *q*, chamber or flue *f*, having an opening to the ascending flue M, chamber or flue *d*, communicating with the flue *c* in the base of the stove proper, ascending flue *m*, base-damper *e*, and damper to variously open or close the opening *m'* to the ascending flue M, combined to operate substantially as and for the purpose set forth.

WM. DOYLE.

Witnesses:
JAMES WRIGHT,
EDWARD H. DOYLE.