

No. 616,003.

Patented Dec. 13, 1898.

L. MITISKA.
MAGAZINE HEATING STOVE.

(No Model.)

(Application filed Jan. 13, 1898.)

2 Sheets—Sheet 1.

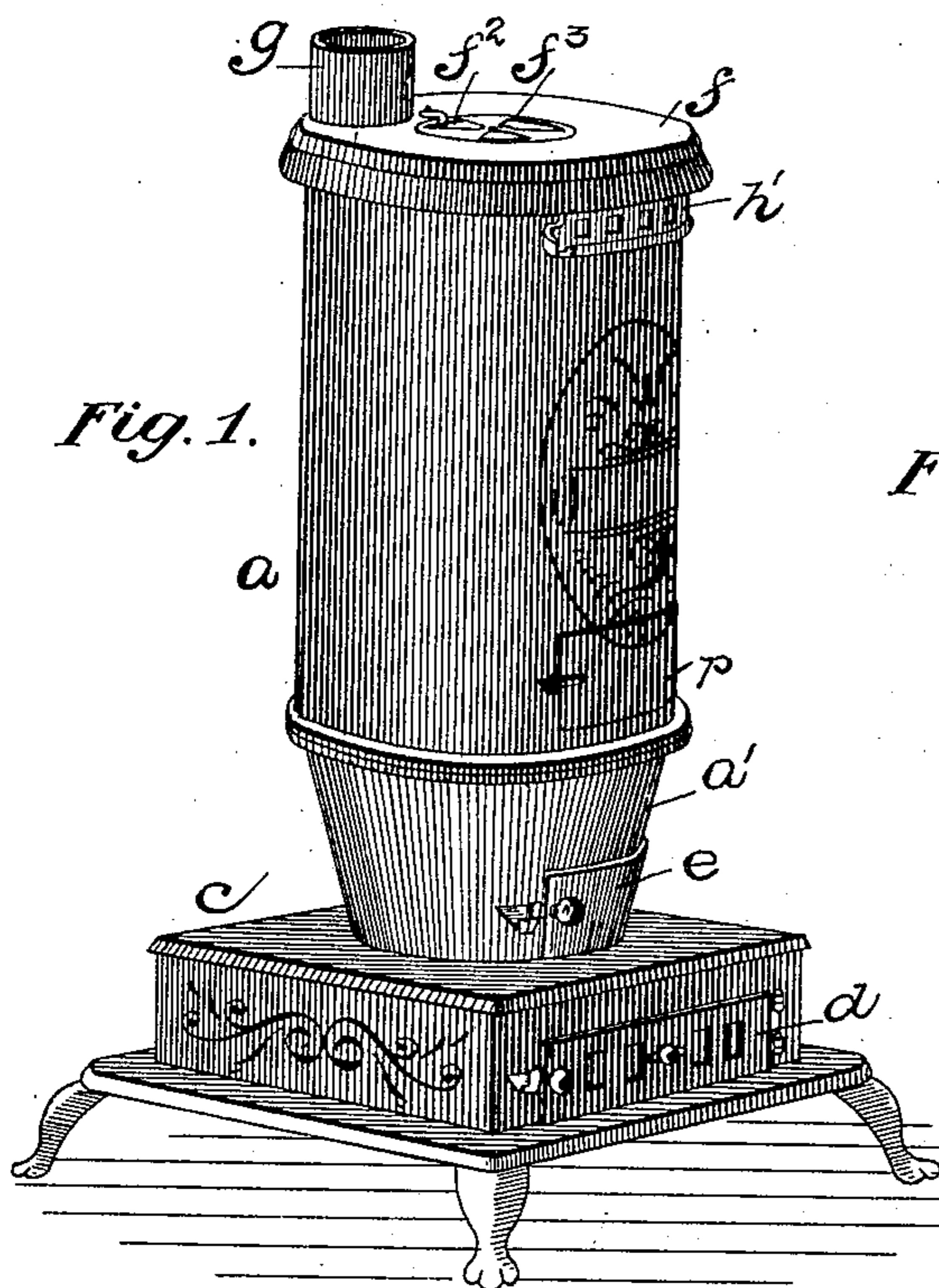


Fig. 1.

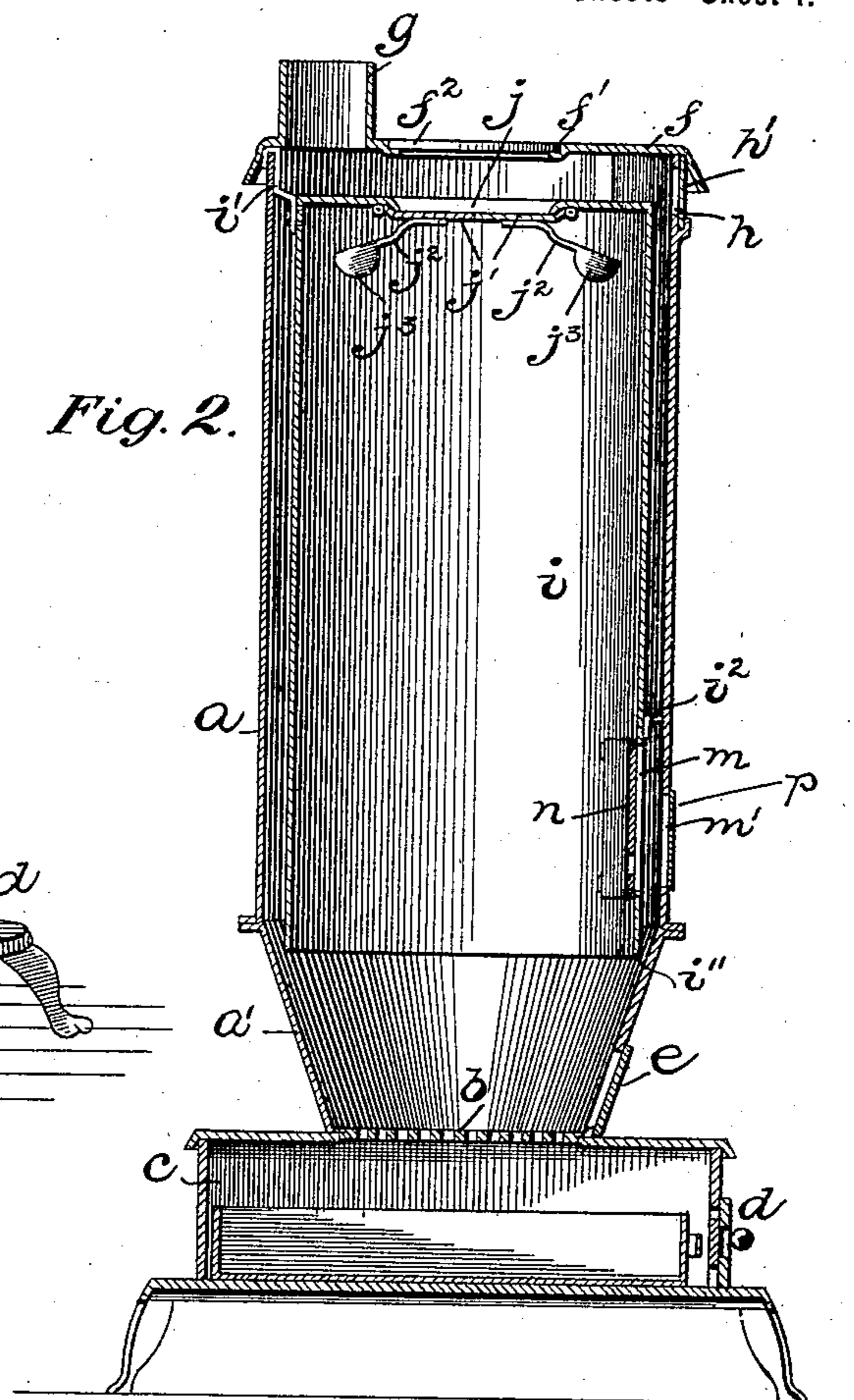


Fig. 2.

Fig. 3.

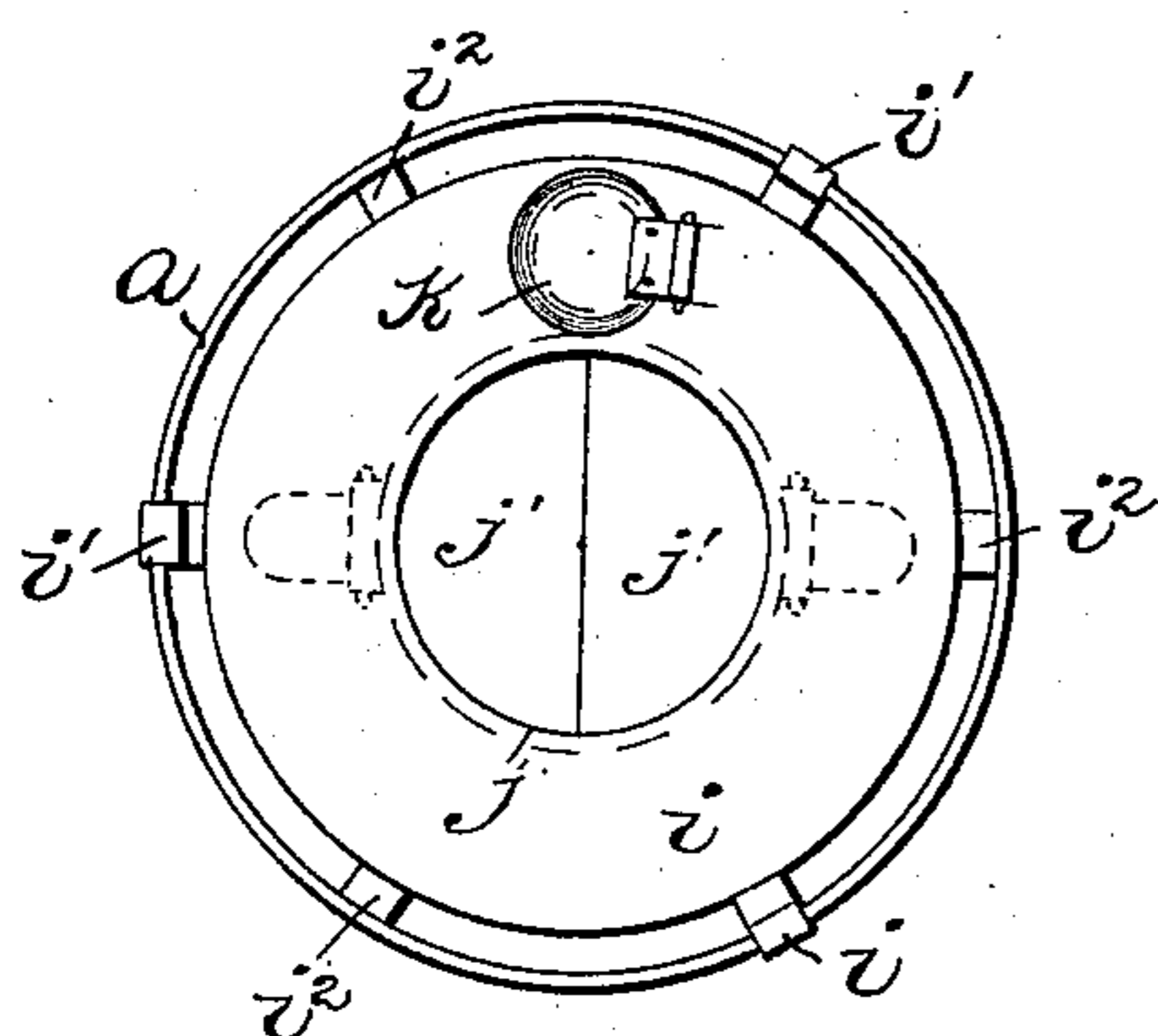
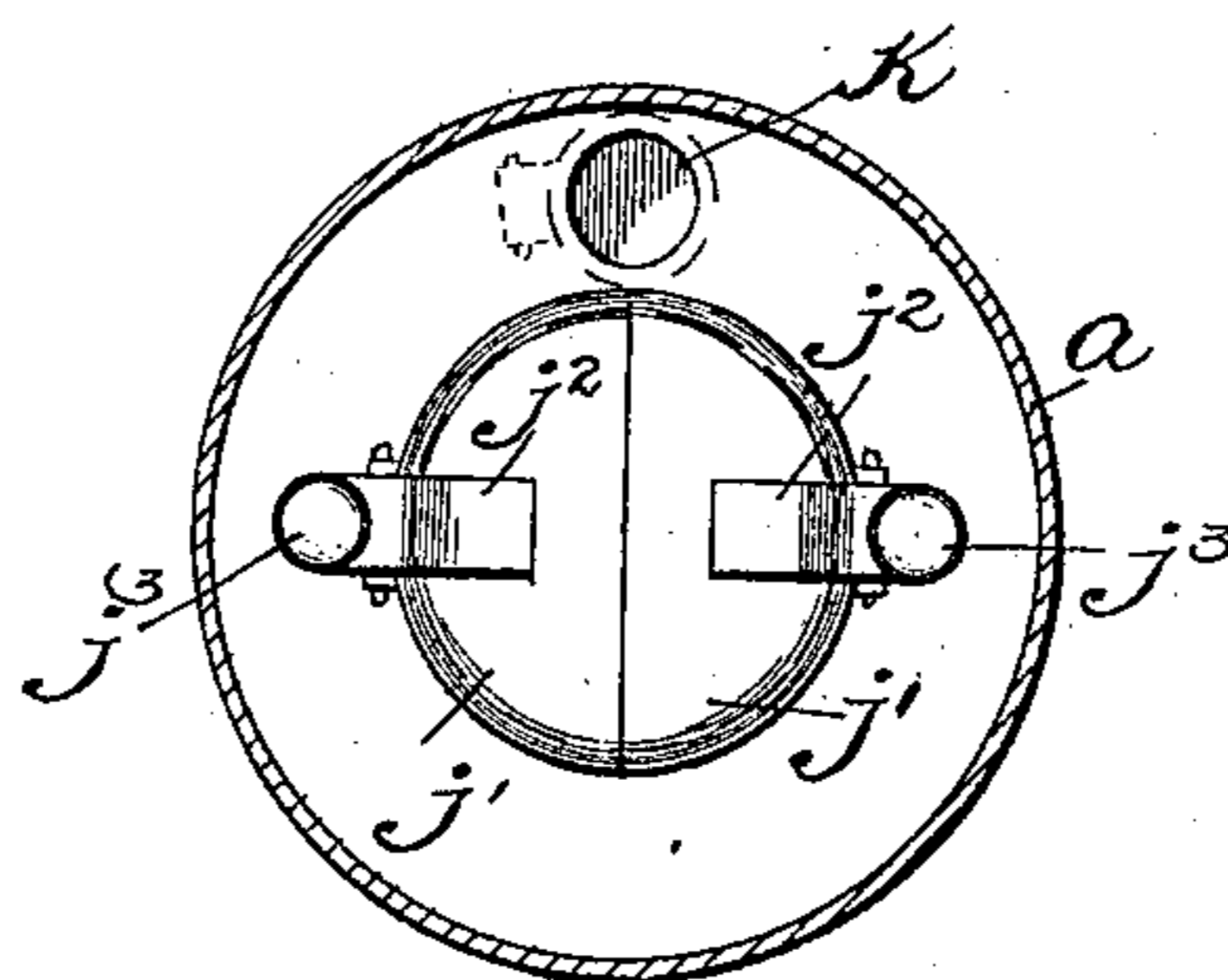


Fig. 4.



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2 Sheets—Sheet 2.

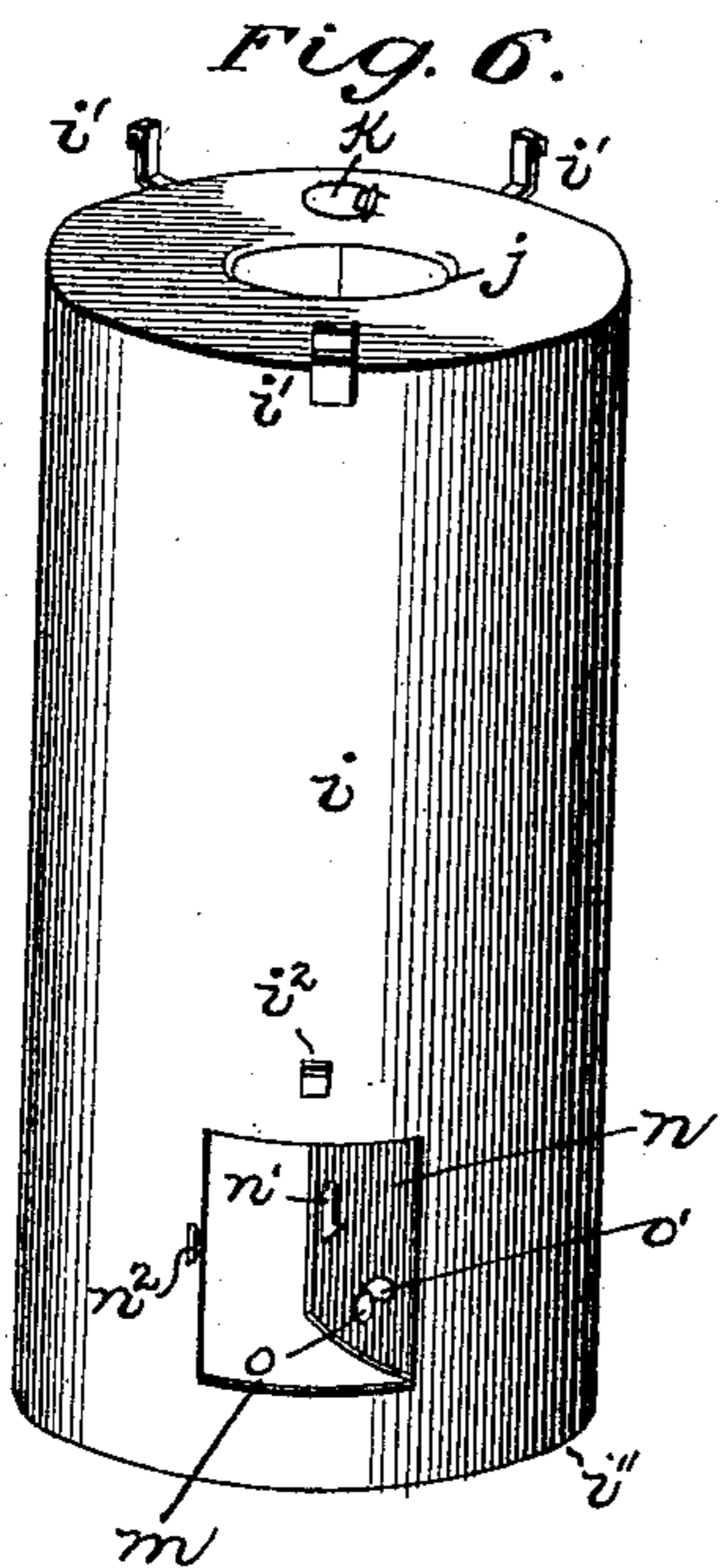


Fig. 5.

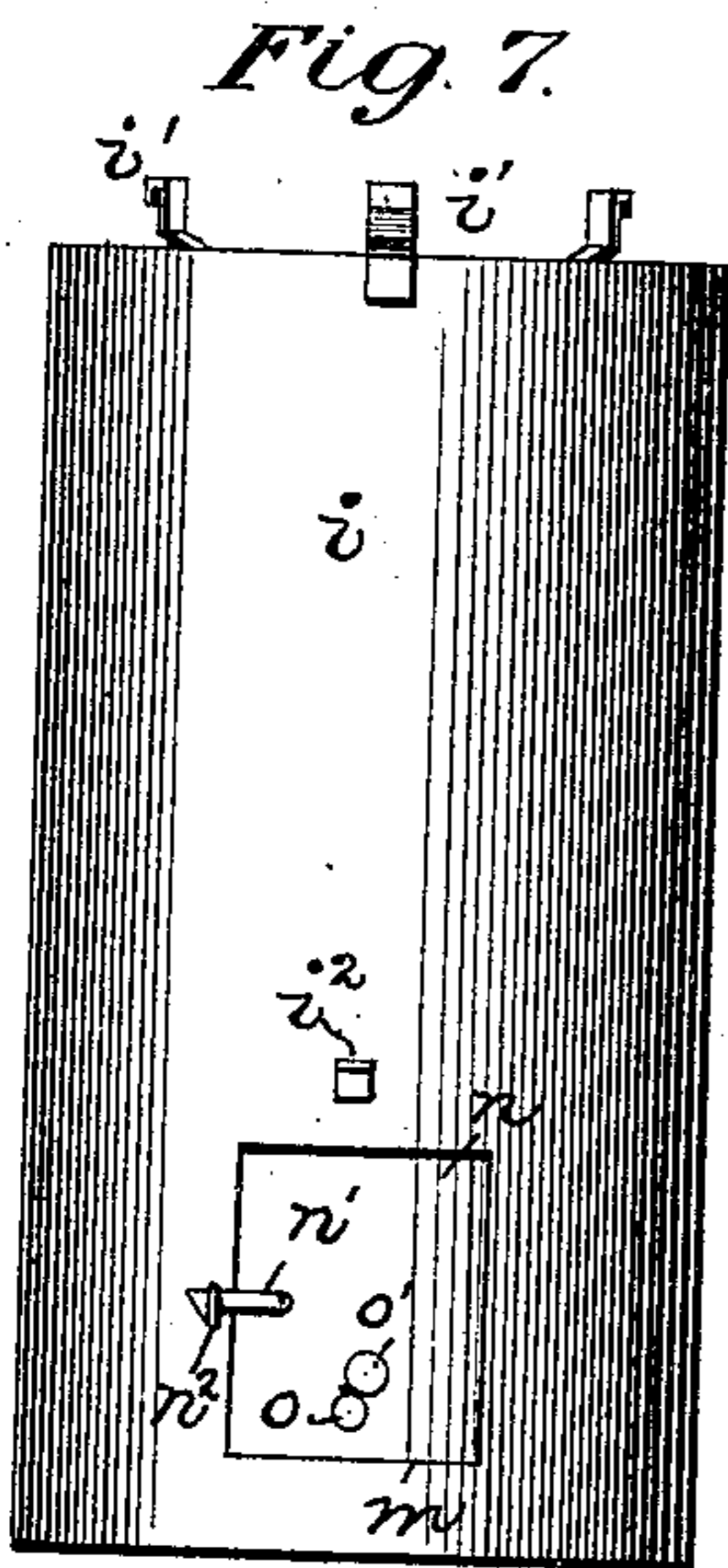
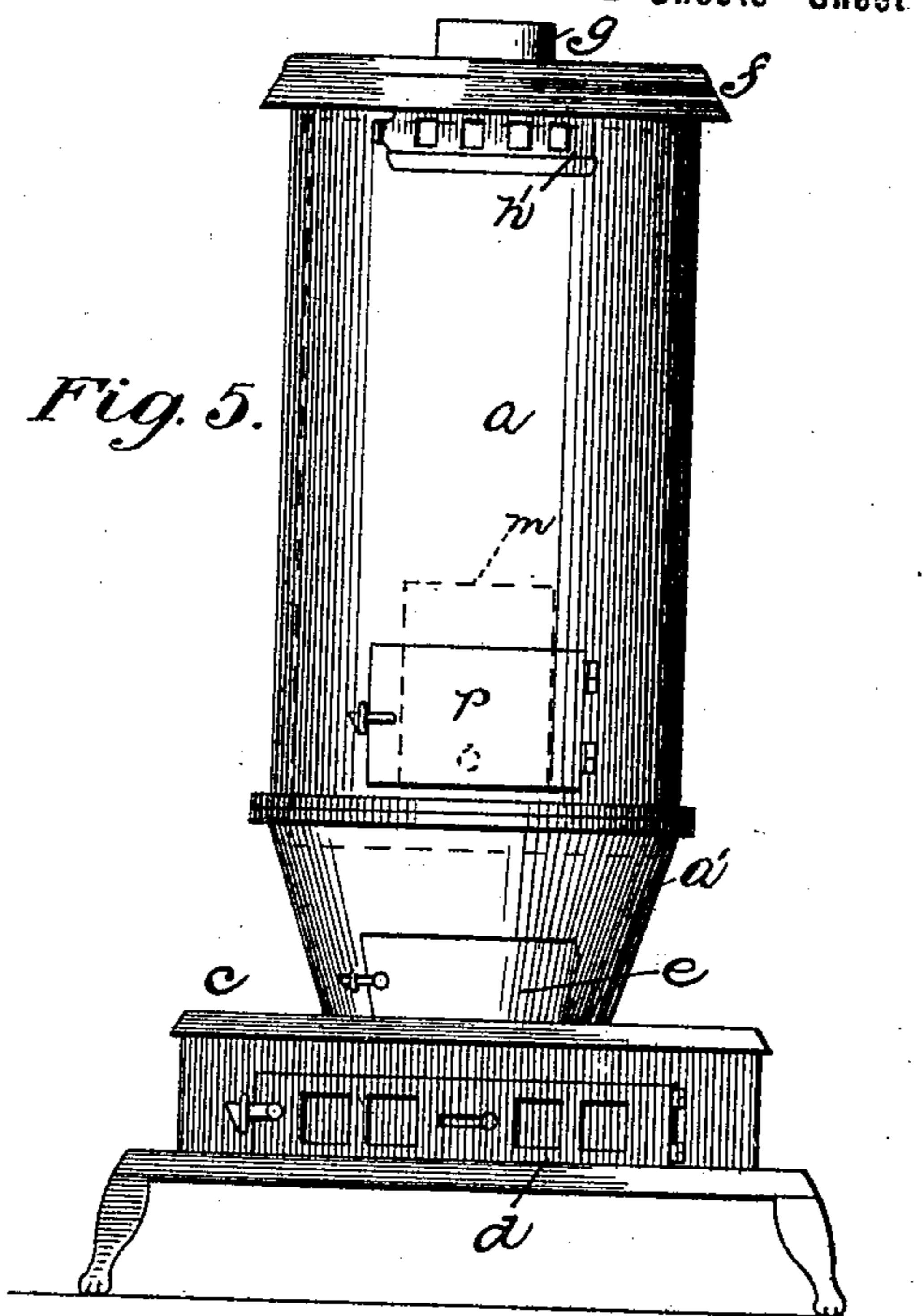
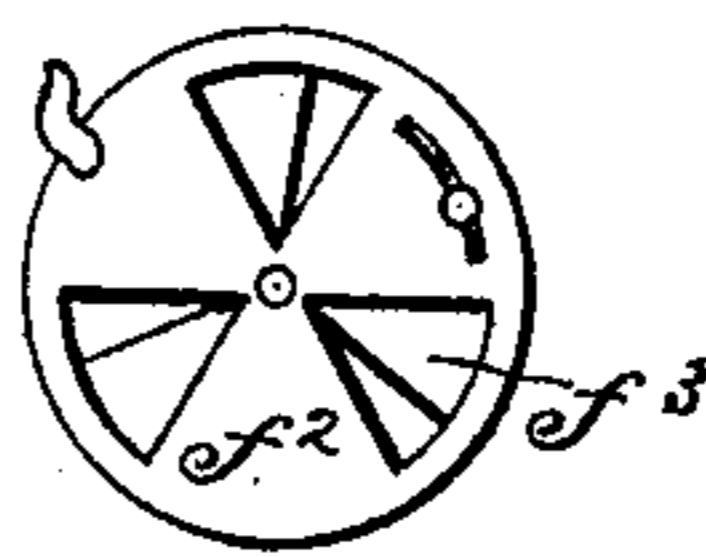


Fig. 8.



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UNITED STATES PATENT OFFICE.

LOUIS MITISKA, OF EVANSVILLE, INDIANA.

MAGAZINE HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 616,003, dated December 13, 1898.

Application filed January 13, 1898. Serial No. 666,546. (No model.)

To all whom it may concern:

Be it known that I, LOUIS MITISKA, a citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Magazine Heating-Stoves; and I do hereby 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.

This invention relates to magazine heating-stoves; and one object is to provide a construction which will permit the easy conversion of an ordinary form of heating-stove without a magazine into one with a magazine and that, too, without requiring any alteration in the parts of the ordinary heating-stove, but simply by the application thereto of detachable appliances.

Another object is to provide a novel relation of parts in a magazine-stove calculated to improve the operation of the same, economize in the use of fuel, and provide for better regulation of the draft.

With the above-stated and other objects in view the invention consists in certain improved features of construction and novel combinations of parts specifically described hereinafter and the essential elements of which are pointed out in the appended claims.

In the drawings which accompany and form part of this specification preferred forms of embodiment of the invention are illustrated, and of said drawings—

Figure 1 represents a heating-stove in perspective adapted for the application of my improvements thereto. Fig. 2 represents the same in central vertical section with the magazine in place. Fig. 3 represents the shell of the stove in plan with the cap thereof removed and the magazine in place within the shell. Fig. 4 represents the magazine in sectional bottom plan. Fig. 5 represents the complete stove in front elevation, with the magazine indicated in broken lines. Fig. 6 represents the magazine in perspective removed from the stove. Fig. 7 represents the magazine in front elevation. Fig. 8 represents a combined damper and lid in top plan.

In the drawings the reference-letter *a* designates the cylindrical outside shell of the

stove, which is contracted at its lower end, as shown at *a'*, a grate *b* being provided at the base of said contracted portion and an ash-pit *c* being suitably arranged below said grate and provided with a door *d*, having an ordinary slide-damper. A door *e* is also provided at the lower part of the contracted portion of the shell *a* to permit access to the upper side of the grate *b*. A cap *f* is applied over the upper end of the shell *a*, being removable therefrom and centrally apertured, as shown at *f'*, which aperture is adapted to be closed by a lid *f''*, having a register *f'''* of any suitable construction, and a smoke-flue *g* rises from the cap *f* at one side of the same, the interior of the shell *a* opening directly into said flue. In one side of the shell *a*, near the top of the same, there is formed a series of draft-openings *h* for the inlet of cold air, and a draft-regulator or damper *h'* is arranged in suitable guides on the exterior of the shell, so as to control the amount of air admitted.

The arrangement of the above-described parts may be similar to that in an ordinary heating-stove, and in furtherance of the object first above stated I propose to suspend the magazine within the stove-shell without necessitating any change of construction in the latter. To this end the magazine *i*, which is of cylindrical form and closed at one end and open at the other, is equipped with a suitable number of hooks *i'*, each of which is preferably formed of a piece of strap metal, bolted or riveted to the side of the magazine, bent outwardly therefrom and thence parallel with the side of the magazine to form the shank of the hook, and thence doubled upon itself to form a hook which will take over the edge of the stove-shell. It will be seen that with such a construction of suspension devices on the magazine the latter can be easily suspended within the stove-shell, while at the same time the cap *f* can properly be applied, as clearly illustrated in Fig. 2. At an intermediate point nearer the lower end of the magazine a number of projections *i''* are fastened to the sides of the magazine, so as to bear against the walls of the stove-shell and keep the magazine properly centered therein. It will be observed that the closed top of the magazine is sufficiently lowered within the stove-shell to have the openings *h* in the side

of the latter extend above the plan of the top of the magazine. This particular relation of parts permits a more effective use of the draft-regulator or damper h' .

5 The top of the magazine is formed with a central circular aperture j for charging purposes, which aperture is closed by semicircular plates j' , hinged to the under side of the magazine-top at opposite sides of the said
10 opening, said plates together constituting a complete closure for the aperture, so that when the stove is in operation the gases arising from the fuel cannot escape without first passing downwardly through the fire. It is
15 preferable to provide for the automatic closure of the opening in the top of the magazine after the fuel has been introduced, and to this end I secure weighted arms j^2 to the under sides of the plates j' , the weights j^3 on the
20 ends of said arms being so disposed as to have a constant tendency to throw the plates upwardly.

The operation of the stove will be apparent and therefore need be but briefly described. The magazine having been charged
25 with fuel and a fire having been started on the grate b , such charge of fuel burns at its lower portion, while that portion more remote from the point of combustion goes
30 through a coking process in the magazine, and the gases resulting therefrom having no outlet in the upper part of the magazine are forced to pass down through the fire. This insures complete combustion and makes the
35 stove in itself a smoke-consumer. Of course I am aware that this general idea is not new with me; but the particular novel relation of parts above described is believed to provide for a more effective operation in a magazine-
40 stove than heretofore accomplished and to facilitate regulating the same.

As a measure of safety I provide a gas-escape port k in the top of the magazine, and a valve k' of a certain known weight rests
45 by gravity over said port and keeps the same closed in the absence of excessive gas-pressure within the magazine.

Where the stove-shell has a door in its side, which is ordinarily the case, I may provide
50 the magazine with a side opening, and in the drawings the letter m designates such an opening in the magazine, which opening, it will be observed, is of somewhat greater height than the opening m' in the side of the stove,
55 with the object of preventing the issuance of smoke from the stove-door when starting the fire. It will be seen that the opening in the side of the magazine gives access to the interior thereof through the opening in the side
60 of the stove, the object of which is to facilitate building the fire. This opening in the side of the magazine is closed by a door n , which is hinged to open inward and is equipped with a latch n' , adapted to engage
65 a catch n^2 on the exterior of the magazine, whereby the said door is held closed to keep

the magazine air-tight when the stove is in full operation. A small hole o is provided in this door n , through which hole a poker can be introduced when necessary, and the
70 hole when not in use is closed by a swing-cover o' . The stove-door p may be of any suitable construction.

It is to be noted that the lower edge i'' of the magazine extends into the contracted portion of the stove-shell, and hence this lower edge of the magazine is separated by a comparatively narrow space from the walls of the stove, the result of which is that free combustion takes place over a very limited area
80 of the bed of fuel and an economical use of the latter is accomplished.

It is evident that the construction herein shown and described is susceptible of variations which would naturally suggest themselves to a person skilled in the art, and hence I do not wish to confine myself to the forms of embodiment of the invention illustrated in the accompanying drawings.

Where a stove is built in the first instance
90 to embody my improvements, the magazine may be permanently fastened to the shell instead of being suspended therein by detachable hooks.

Registers both in the top and side of the
95 stove, as shown in the drawings, are not necessary, and either may be dispensed with without seriously impairing the operation of the stove.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a heating-stove, the combination of a stove-shell having draft-openings in its sides at the top, a magazine having a closed top and
105 open bottom and a plurality of elongated suspension-hooks projecting above the top and taking over the top edge of the stove-shell, the magazine when suspended within the stove-shell having its top considerably below
110 that of the latter and the hooks being so limited in number and dimensions and so distributed as to offer no appreciable obstruction to free communication between the space in the shell above the magazine and the space
115 around the latter; and a cap fitting over the top of the shell and having a smoke-flue.

2. In a magazine-stove, the combination of a stove-shell having an opening in one side, and a magazine suspended within said shell
120 and having a side opening corresponding in location with the side opening in the stove-shell, but of appreciably greater height than the same, and suitable doors for said openings.

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

LOUIS MITISKA.

Witnesses:

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K. E. RAUCH.