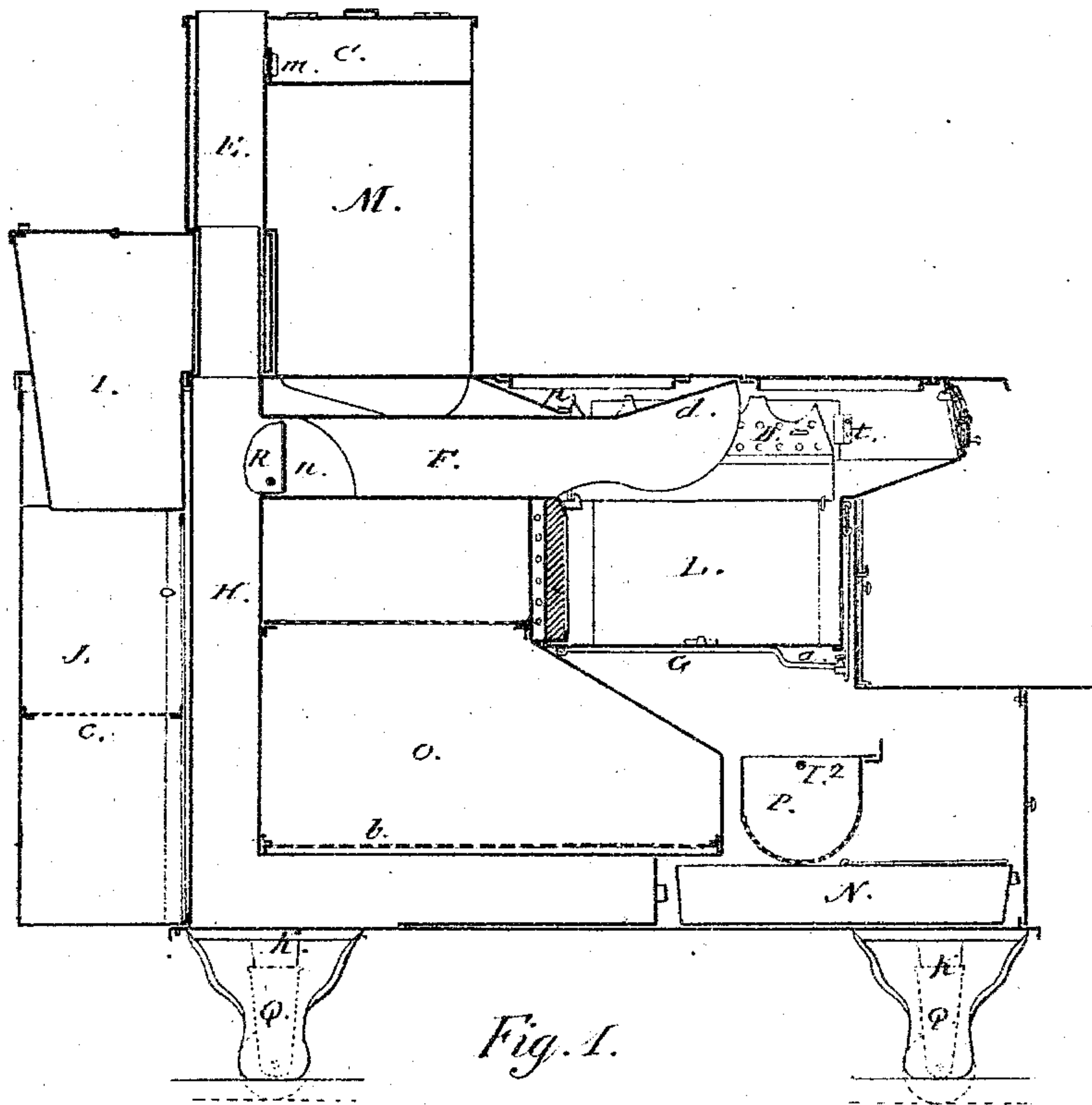


*H. F. Wolcott's*  
*Cooking-Store.*

No. 118,771..

Patented Sep. 5, 1871.



Witnesses;  
A. Moore  
H. L. Miller.

Inventor;  
Henry E Wolcott  
per Saml. Gardner  
att'y.

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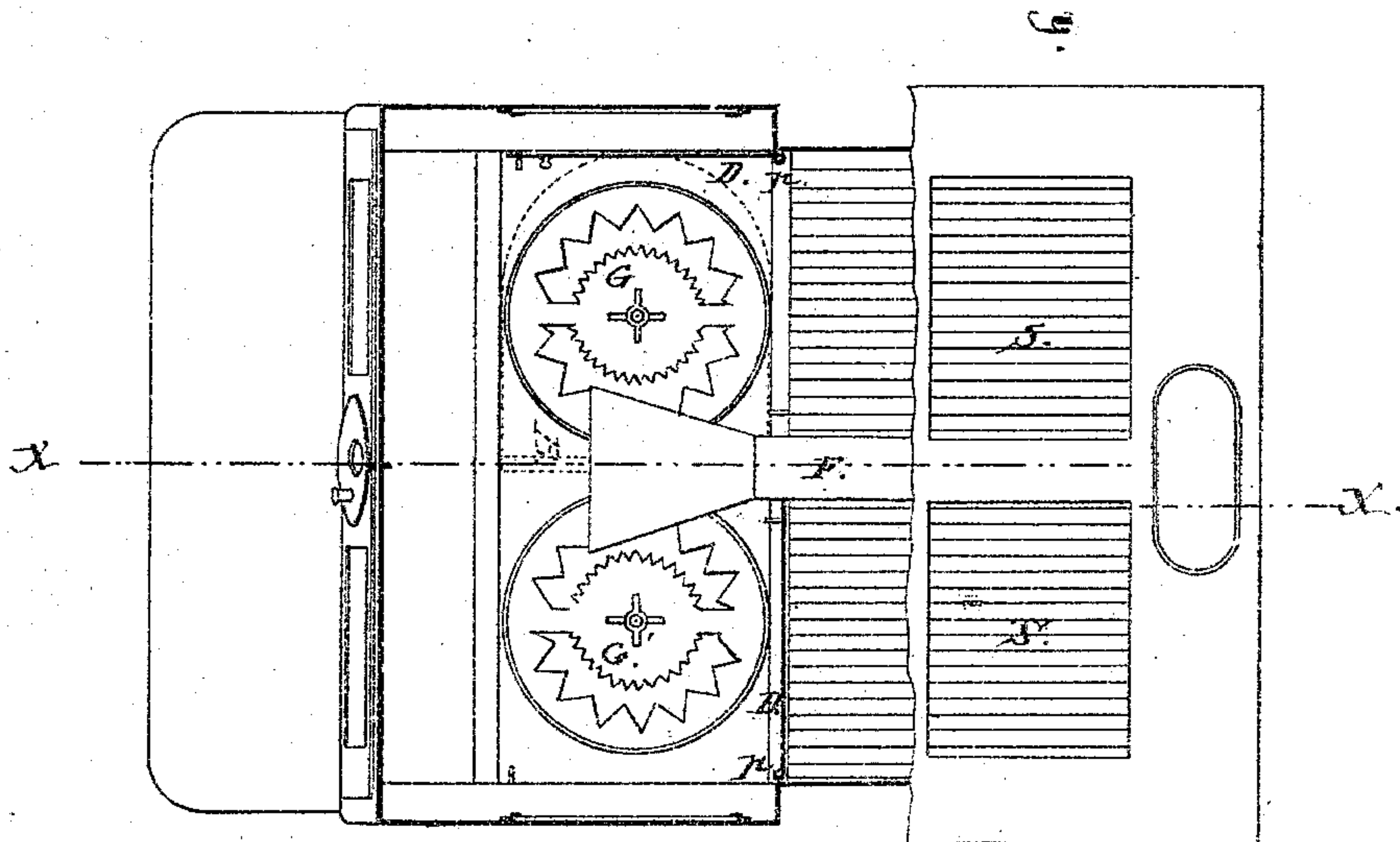


Fig. 2.

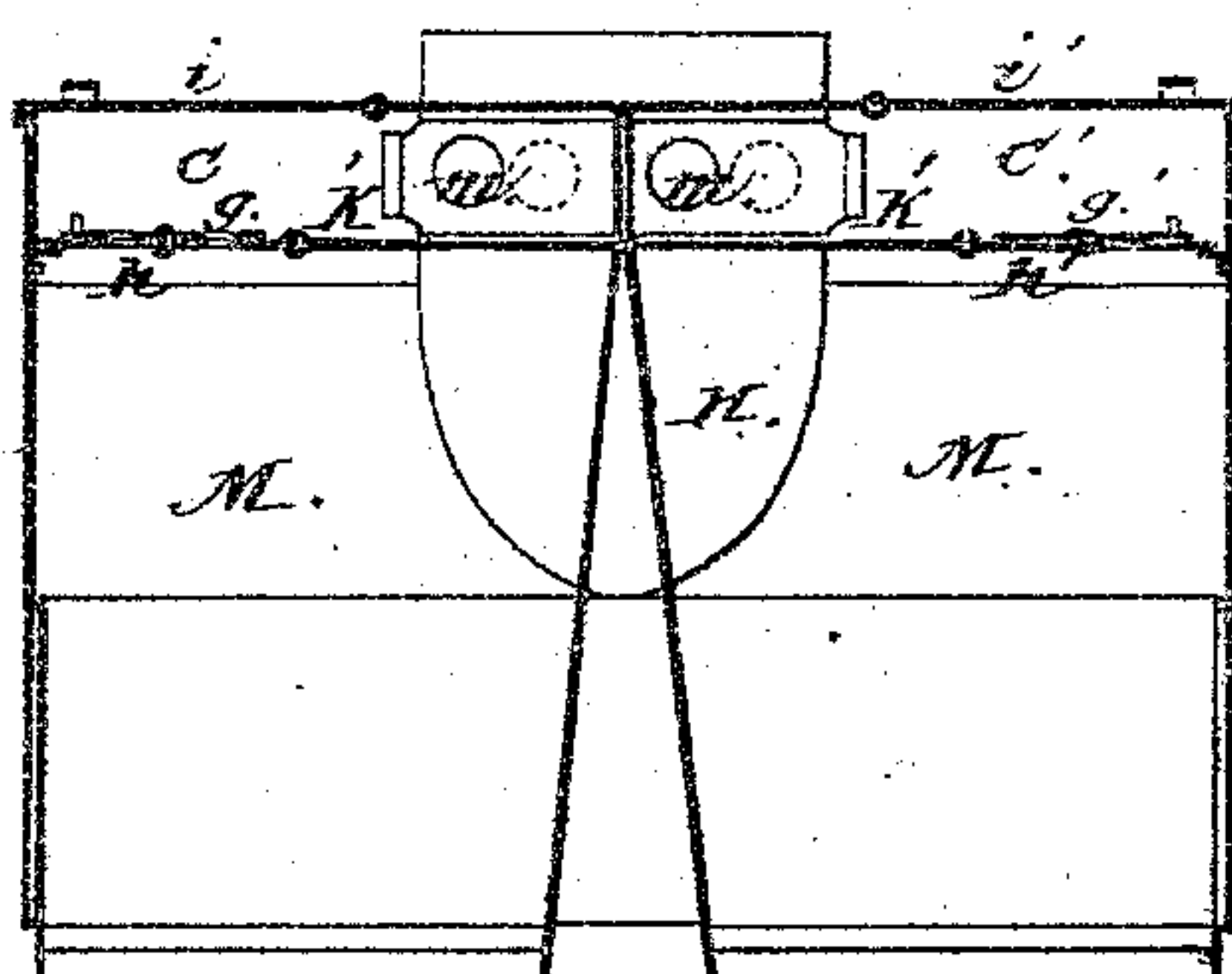


Fig. 3.

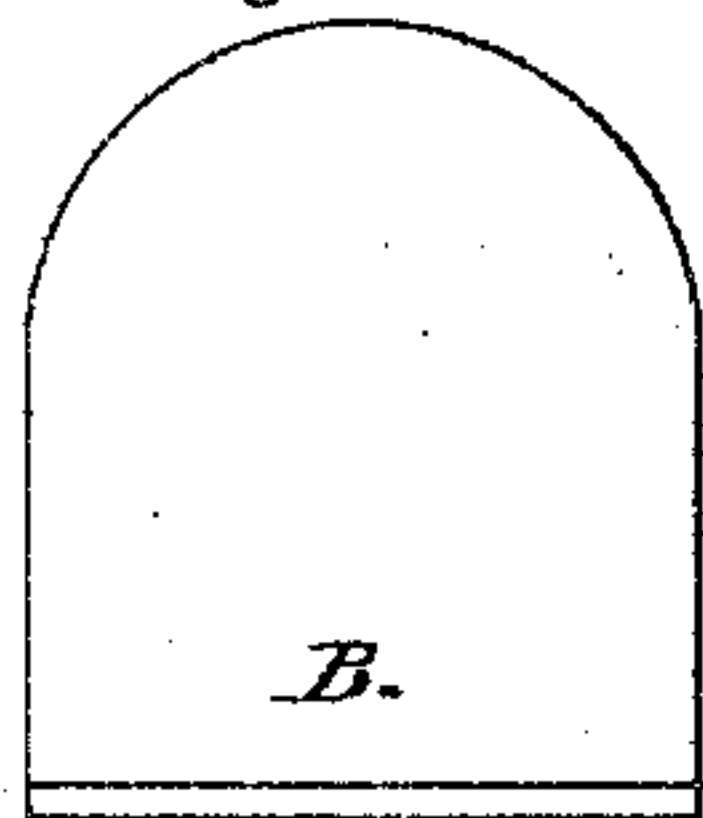


Fig. 4.

Witnesses;  
A. Moore  
H. S. Miller.

Inventor;  
Henry E. Wolcott  
per Samuel Gardner  
att'y.

# H. E. Wolcott's Cooking-Stove.

No. 118,771.

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Fig. 5.

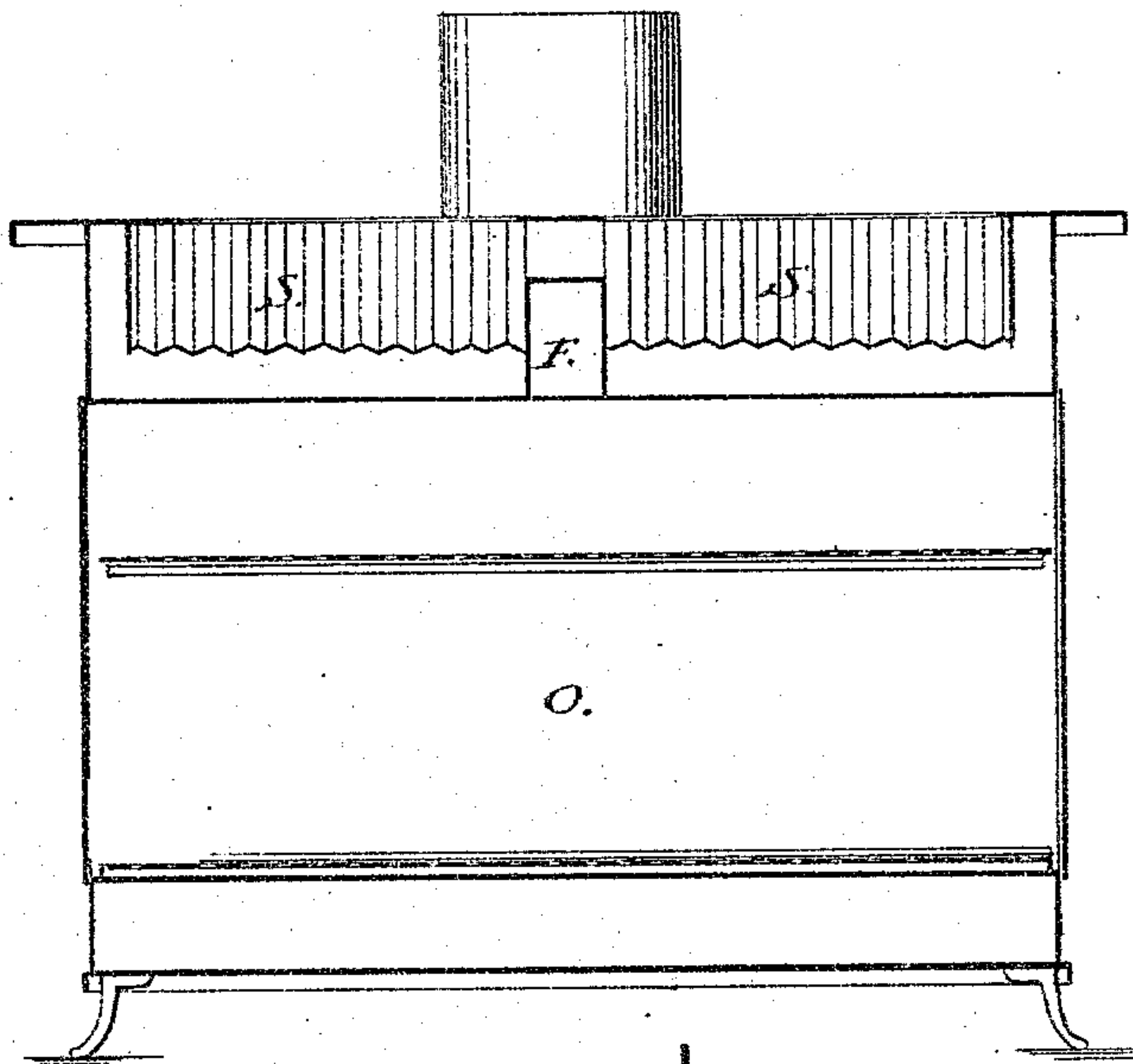


Fig. 6.

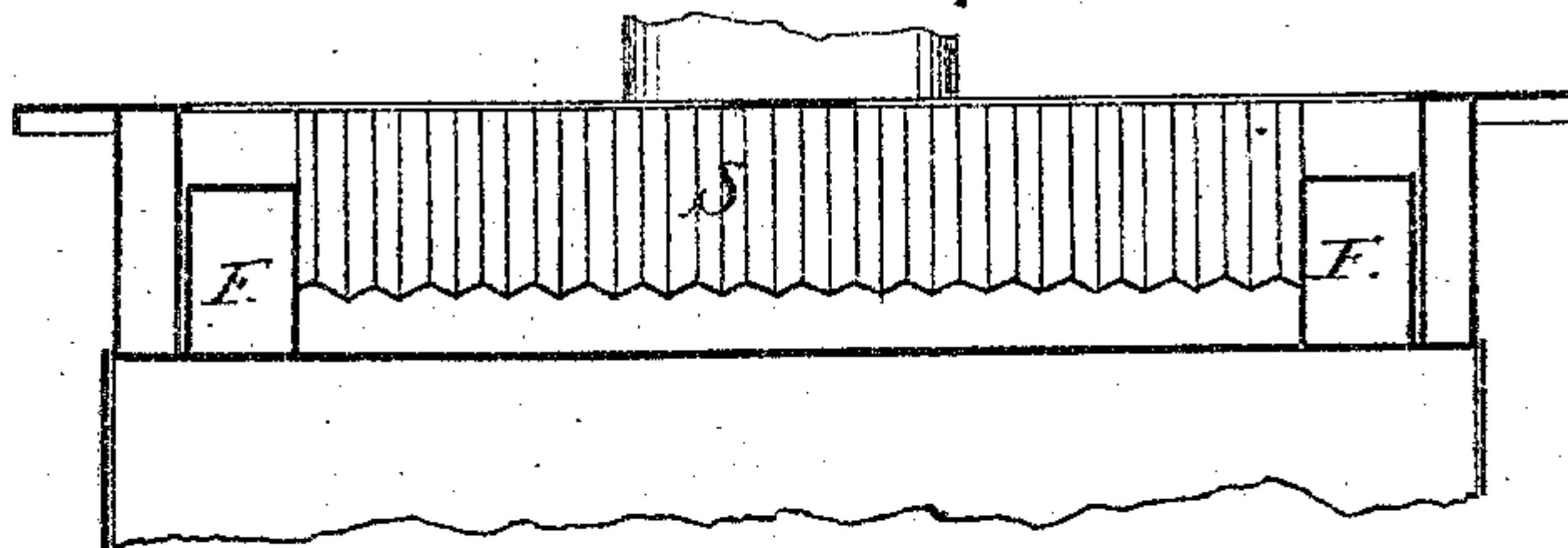
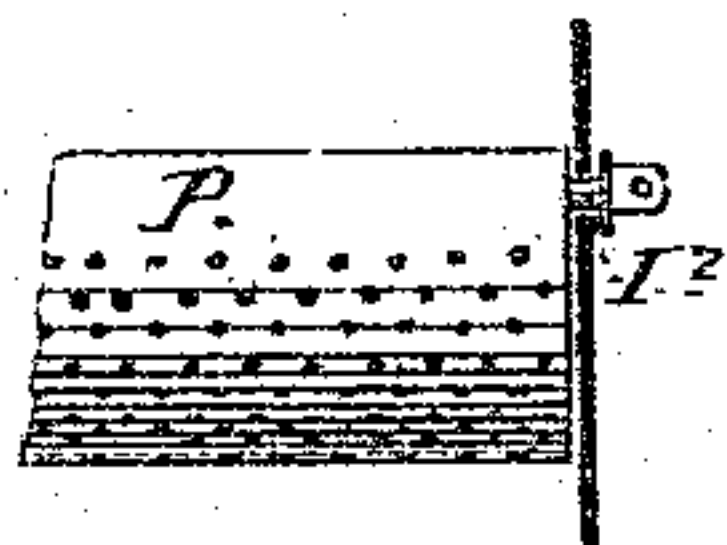


Fig. 7.

Witnesses;

Edw. W. Dunn  
M. Gardner

Inventor;

Henry E. Wolcott  
per Saml. Gardner  
att'y.



# UNITED STATES PATENT OFFICE.

HENRY E. WOLCOTT, OF ELBRIDGE, NEW YORK, ASSIGNOR OF ONE-FOURTH HIS RIGHT TO NATHAN MUNRO, OF SAME PLACE.

## IMPROVEMENT IN BASE-BURNING COOKING-STOVES.

Specification forming part of Letters Patent No. 118,771, dated September 5, 1871.

*To all whom it may concern:*

Be it known that I, HENRY E. WOLCOTT, of Elbridge, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Cook-Stoves; and I do hereby declare that the following is a full and exact description of the said invention and of my claims therefor.

My invention relates to an improvement in that article of manufacture known as cooking-stoves; and consists of a stove with a flat top, having on the back part of its top, behind its griddle-holes, for its principal feature, an upright structure called a magazine, for coal or other fuel to be fed to the fire-chamber as fast as it is consumed. The object of this device is to keep up a continuous fire over night or through the day, and to avoid the annoyance caused by having frequently to feed the stove or renew the fire, and thereby create dust, to the disadvantage of the cooking arrangements, &c. The magazine is set upon the stove in such a way as to clasp the stove-pipe, which assists in holding it in its position. It is divided vertically into two compartments by double walls of metal, and horizontally by a partition, which is provided at either side with a door having an adjustable slide. One of the objects in having two compartments in the magazine is to distribute the fuel equally over the fire in the fire-chamber and to have the magazine filled evenly, which would not be the case if there was but one apartment and one opening to same. The smoke-pipe has openings, with an adjustable slide, which openings communicate with the upper chamber of the magazine to allow the gas from the ignited coal to escape by way of the openings in the inner door to the chimney while the magazine is being filled, or whenever gas is being generated more rapidly than it can pass through its natural passage. By leaving the upper door open and the inner closed this arrangement in the pipe permits the fumes and smoke from cooking or when kindling to pass off through the chimney. Just beneath the magazine is an inclined plane, on which the coal may slide till it reaches the fire-chamber. This inclined plane is arranged with sufficient inclination to allow the coal to slide down easily, and is corrugated or fluted, to give but a small bearing-surface to the sliding fuel, and consequently less friction to be overcome in its course to the

fire-chamber. By this arrangement the liability of the coal to clog up the entrance to the fire-chamber is overcome. Above the fire-chamber, and through the corrugated inclined plane, I run a flue in the direction of the depth of the stove, to connect with a space at the back of the stove proper, which space connects with the stove-pipe or smoke-flue. This flue is intended to give a direct draught through the coal in the fire-chamber when necessary. A damper at the intersection of this flue with the back of the stove serves, when closed, to throw the heat through the lateral openings in the flue around the oven to facilitate baking. The upper plate of this flue serves as a brace to sustain the center plate of the top of the stove. I, by preference, run this flue through the center of the stove, but the same principle would apply should there be two such flues provided, one at each end of the fire-chamber, in which case the coal would slide on the inclined plane in the middle instead of at the sides of the stove. The bottom of my fire-chamber is composed of two grates, each of which may act independently of the other, and they are constructed in a circular form, open in the usual way, to allow ashes to pass below as the fuel is consumed. Under these grates pass iron rods, hinged at the back and secured to the grates. These rods extend to the front and form loops, to be caught and held in position with the grates by hooks or some common device suitable to this purpose. This stove-bottom or grate I consider superior to those now in use which run the full width of the stove, as they are liable to warp and sag after use. My grates are supported by iron rods passing under them in such a way as to render them firm, and, being small, they are not liable to be affected by the heat, as are such as I have just mentioned. The loops formed by the rods being at the front of the stove, to secure them, or, when cleaning the stove, to release them, is very simple and easy. By means of an iron brick I divide the fire-chamber into two parts to form two separate chambers, so that in the summer season, or when a large fire is not desirable, one of them may be used while the other is empty, and, as the magazine-walls give a corresponding division, the stove may be used in just one-half its capacity, which forms an arrangement both economical and advantageous under certain circumstances. Im-



mediately under the dumping-grate I swing upon an axle, or pivots having an axis parallel with the front of the stove, a sifter having a flat or curved bottom, reticulated, perforated, or with wire netting, and open at the top to receive the ashes and unburnt coal from the fire-chamber as it is dumped from the grate. This screen or sifter is made less in length than the width of the stove, to allow play while it is being shaken by a rod in the hand of a person on one side of the stove. This device is operated by a horizontal movement in the direction of the axis of its support. When, by shaking, the ashes are separated from the unburnt coal, the sifter, by means of a crank in the hands of the operator, may be revolved on its axis and the contents dumped in the pan or receptacle below. In the oven of my stove I arrange an extra bottom, perforated so that it may slide in and out. This bottom is placed at a distance from the real bottom sufficient to give a good air-space, to prevent articles in the process of baking from burning on the bottom. This bottom being free to slide laterally, articles baking may be turned from the outside of the stove. At either end of the fire-chamber, just below the top of the stove, I glaze with mica a space to form a window, in order that the fire may be seen from the room. These windows I protect with a perforated door hinged at the side nearest to the inclined plane, to serve the additional purpose of damping the stove by closing the same against the entrance to the fire-chamber from the magazine. To the bottom plate of my stove I cast a drop or teat, forming the frustum of a cone, on which may be slid, when necessary, a socket with a caster-wheel attached, to serve as a convenient arrangement in moving the stove. I am well aware that casters have been applied to various portable bodies to save wear and tear consequent upon lifting, but I believe myself the first to have made the application of the drop forming a part of the caster as a fixed attachment to the bottom plate of a cooking-stove.

Figure 1 is a section on line  $xx$  of plan. Fig. 2 is a plan with the front of stove in section. Fig. 3 is a vertical section through magazine. Fig. 4 is an elevation of the dividing-brick. Fig. 5 is a section on  $yy$ , Fig. 2. Fig. 6 is a detached view of coal-basket or sifter. Fig. 7 is a section showing the alternate arrangement of flues  $F F$ .

A is the stove, having its general arrangement, with its top plates, bottom, back, and front plates, containing the necessary doors, griddles, dampers, &c., common to all cooking-stoves. M is the magazine, to be filled with coal for the use of the stove. O is a space at the top of the magazine, divided by the partition  $K'$ .  $h$   $h'$  are inner doors, provided with adjustable openings  $g$   $g'$ , to be opened or closed at proper times to allow the fumes and smoke from the room and gases from the coal to pass into the chimney through openings in the stove-pipe.  $i$   $i'$  are the upper doors of the magazine, through which the coal is fed to the stove.  $m$  is a slide, to open or close the holes in the pipe to allow the gas and

fumes to pass off. E is the stove-pipe communicating with the stove and chimney. S S' forms an inclined plane, over which the fuel passes to the fire-chamber L. H is a space at the back of the stove communicating with other air-spaces about it, and through which hot air and smoke pass before reaching the pipe E when the damper R is closed. F is the flue, having at its intersection with the space H the damper R. This damper, when closed, compels the hot air to pass through the openings  $n$  and to circulate in the spaces about the oven.  $d$  is a continuation of the upper plate of the flue F to sustain the center plate of the top of the stove. L is the fire-chamber. G G' are circular grates, supported by the bars  $a$ . P is the ash-screen or sifter, supported on the pivots  $I^2$ . B is the brick with a flange, covering one of the grates, and dividing the fire-chamber into two separate chambers. N is the ash-pan. D are the perforated doors to close over and protect the mica window or to damp the stove. O is the oven.  $b$  is the extra perforated bottom of the oven. I is a water-tank or vessel overhanging the back of the stove. J is a plate-warmer hung to the back plate of the stove, with a rack,  $c$ , to support plates, dishes, &c. K K are conical teats or drops, over which may be slipped the caster-sockets Q when it is necessary to move the stove. The clips  $t$ , riveted to the sides of the stove, serve to hold the mica windows in place.

I claim—

1. The magazine M, situated on the back of the stove behind the griddle-holes, having upper apartments communicating with the smoke-pipe by the adjustable draught-openings  $m$   $m$ , as and for the purpose set forth.

2. The corrugated or fluted inclined plane S S', in combination with the magazine M and fire-chamber L, as and for the purpose set forth.

3. The flue F, running through the center of stove at right angles to its front, and having the damper R and openings  $n$ , as and for the purpose set forth.

4. The combination of the magazine M, the chute S, and the fire-pot L, each divided or susceptible of division through the center, in the manner described, so that one-half of the stove may be used independently of the other, as and for the purpose set forth.

5. In a stove constructed as described, the grates G G', supported by the hinged rod  $a$ , and arranged for use independently of each other, as set forth.

6. The perforated doors D, hinged at  $p$ , as seen in drawing, to serve when open, against the sides of the stove, as a protection to the mica windows, or when closed, as dampers to the stove.

7. The drop or teat K at the corners and under the bottom plate of stove, as a permanent fixture, to receive the socket Q, as and for the purpose set forth.

HENRY E. WOLCOTT.

Witnesses:

CHAS. G. MCGOWAN,  
M. W. LYON.