

(No Model.)

2 Sheets—Sheet 1.

W. E. WALKER.

STOVE.

No. 313,560.

Patented Mar. 10, 1885.

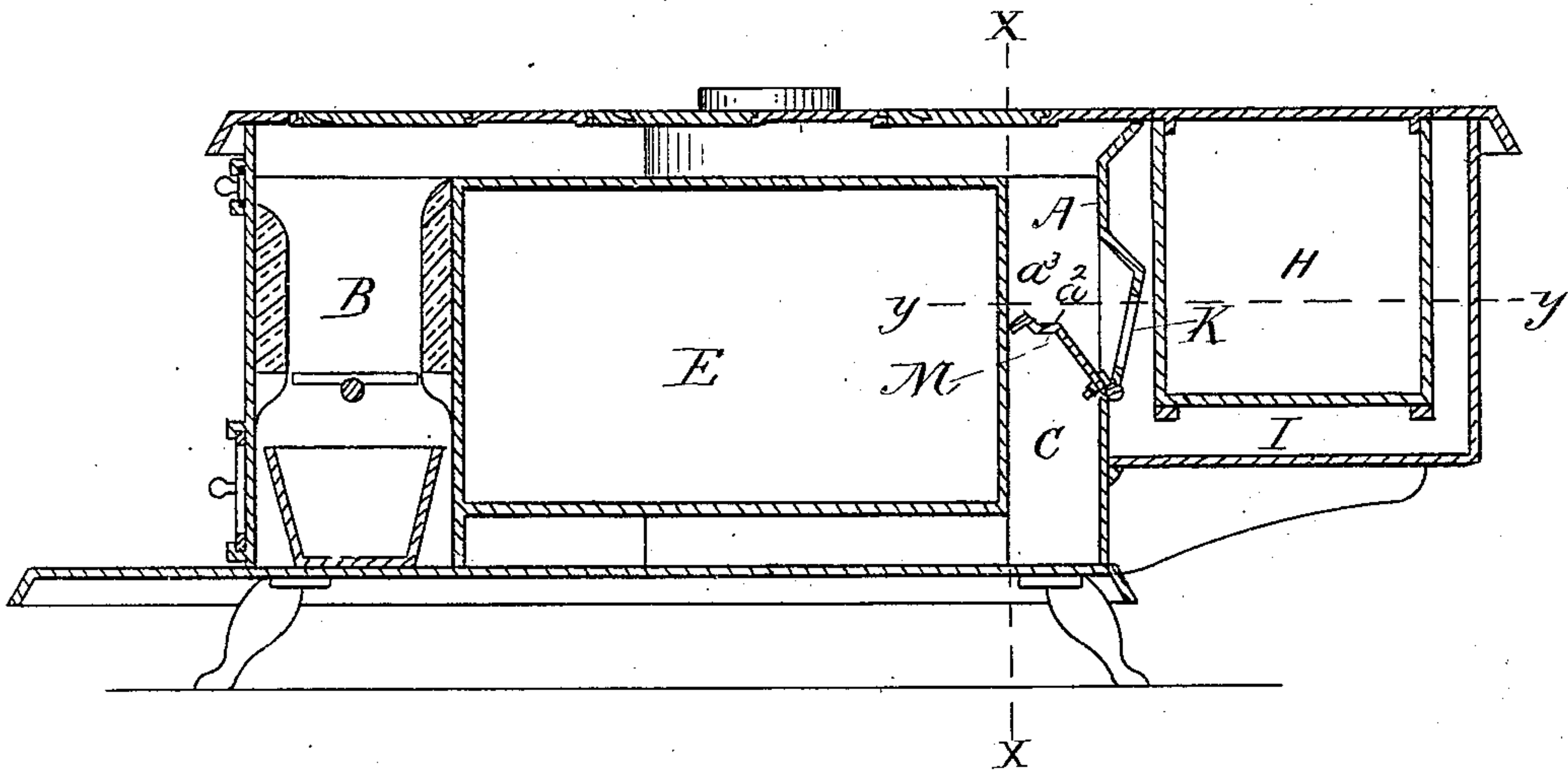


Fig. 1.

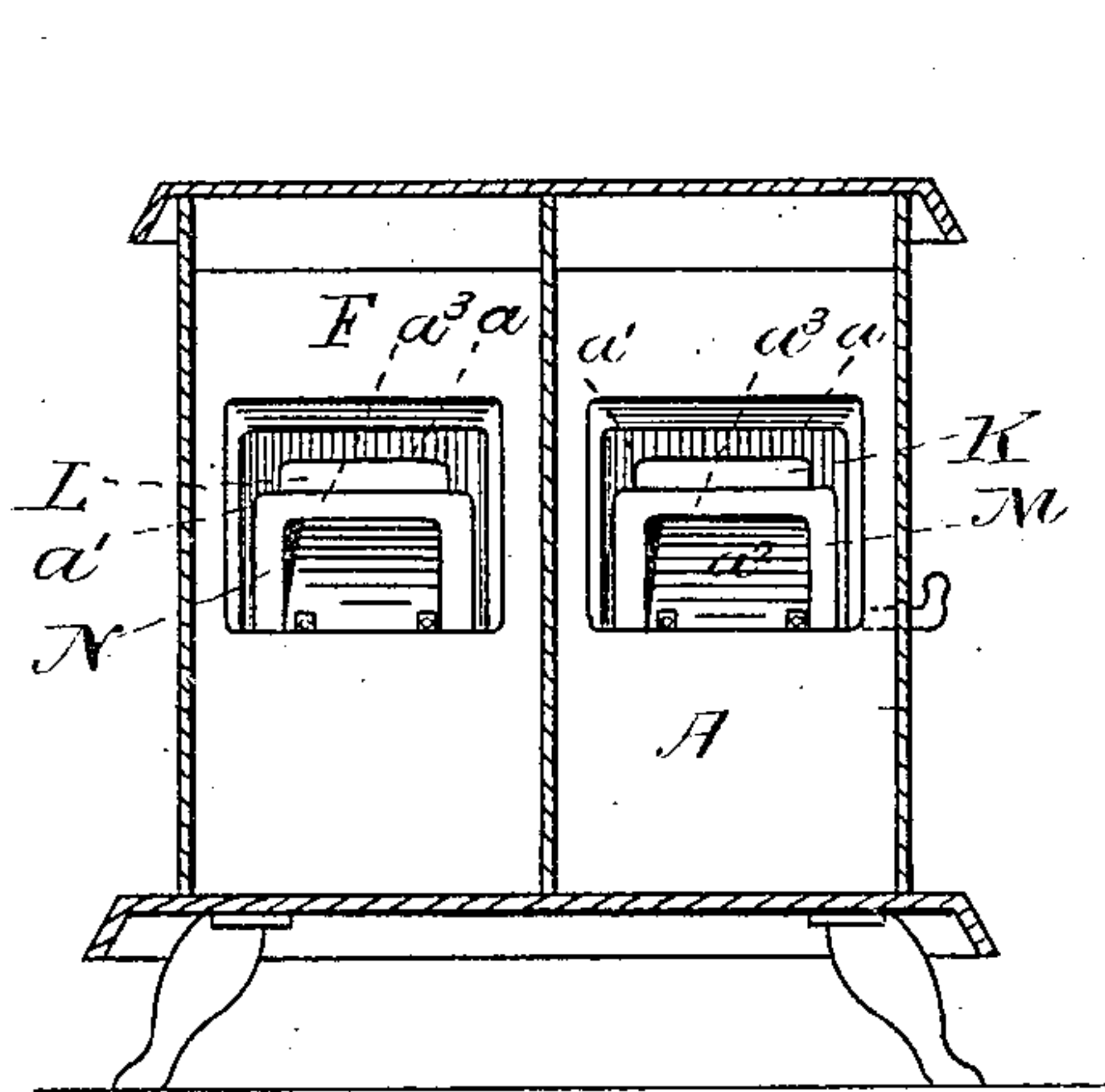


Fig. 2.

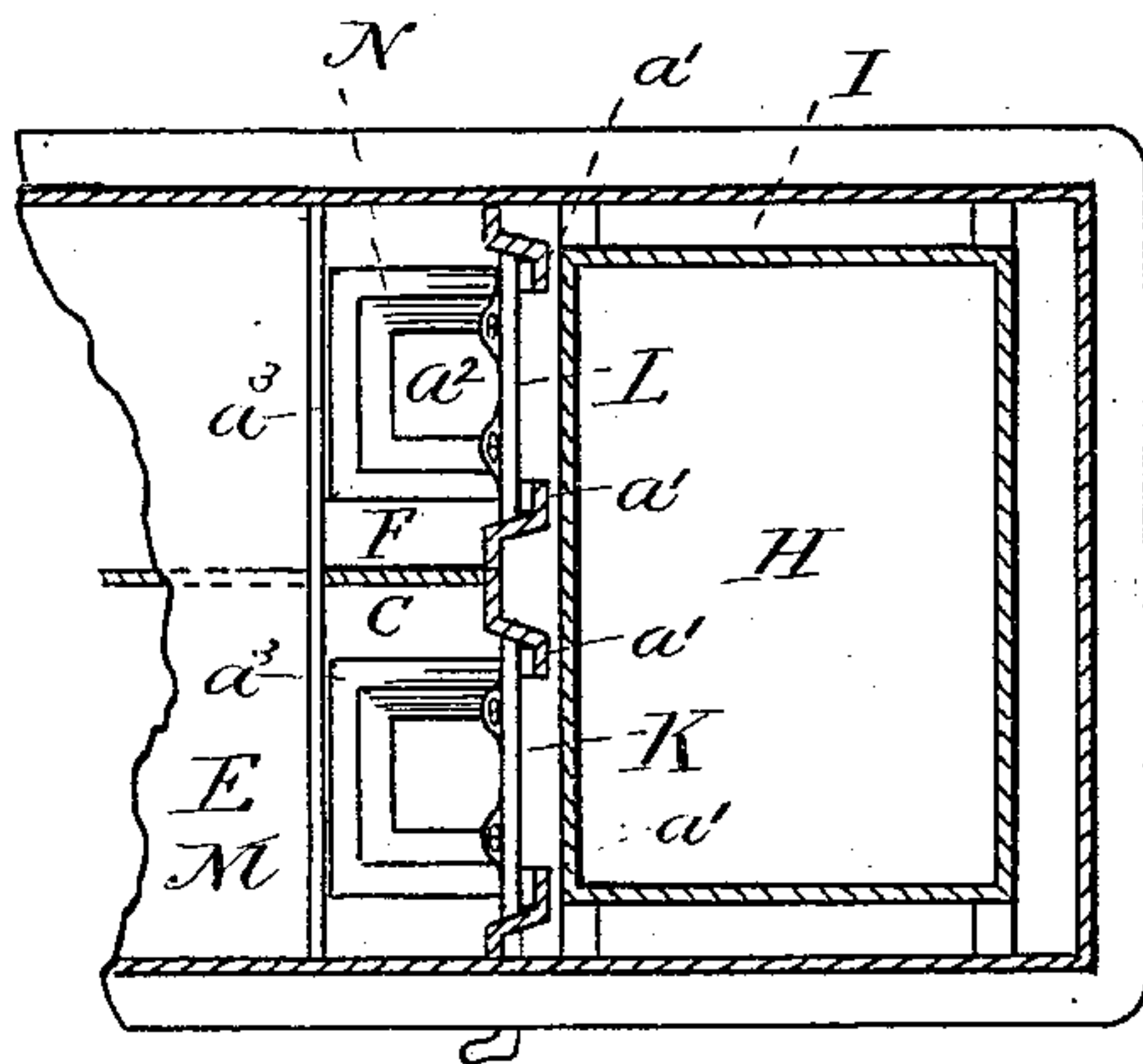


Fig. 3.

WITNESSES.

Fred. Harris

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INVENTOR.

William E. Walker
by his attys
Clark & Raymond

(No Model.)

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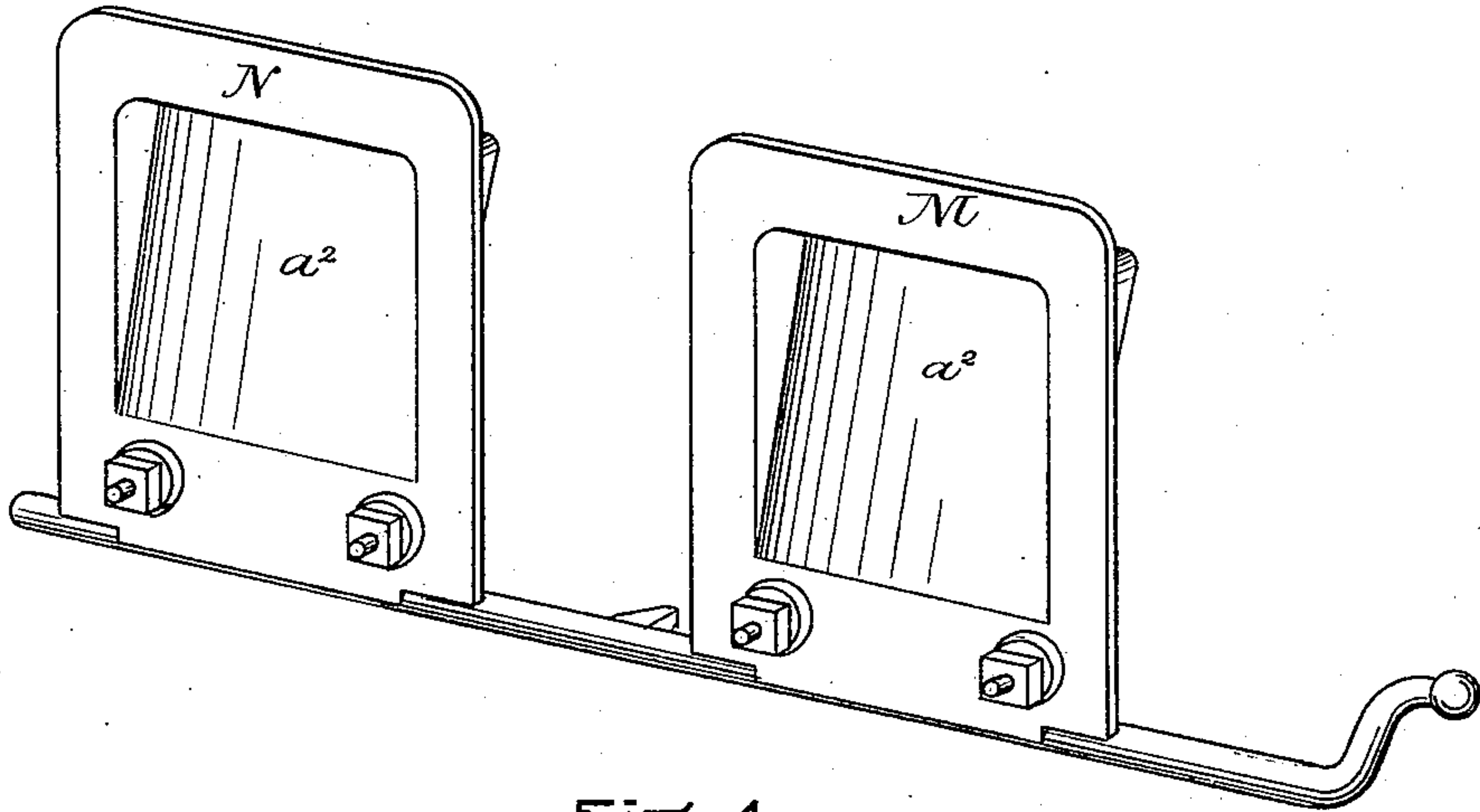


Fig-4

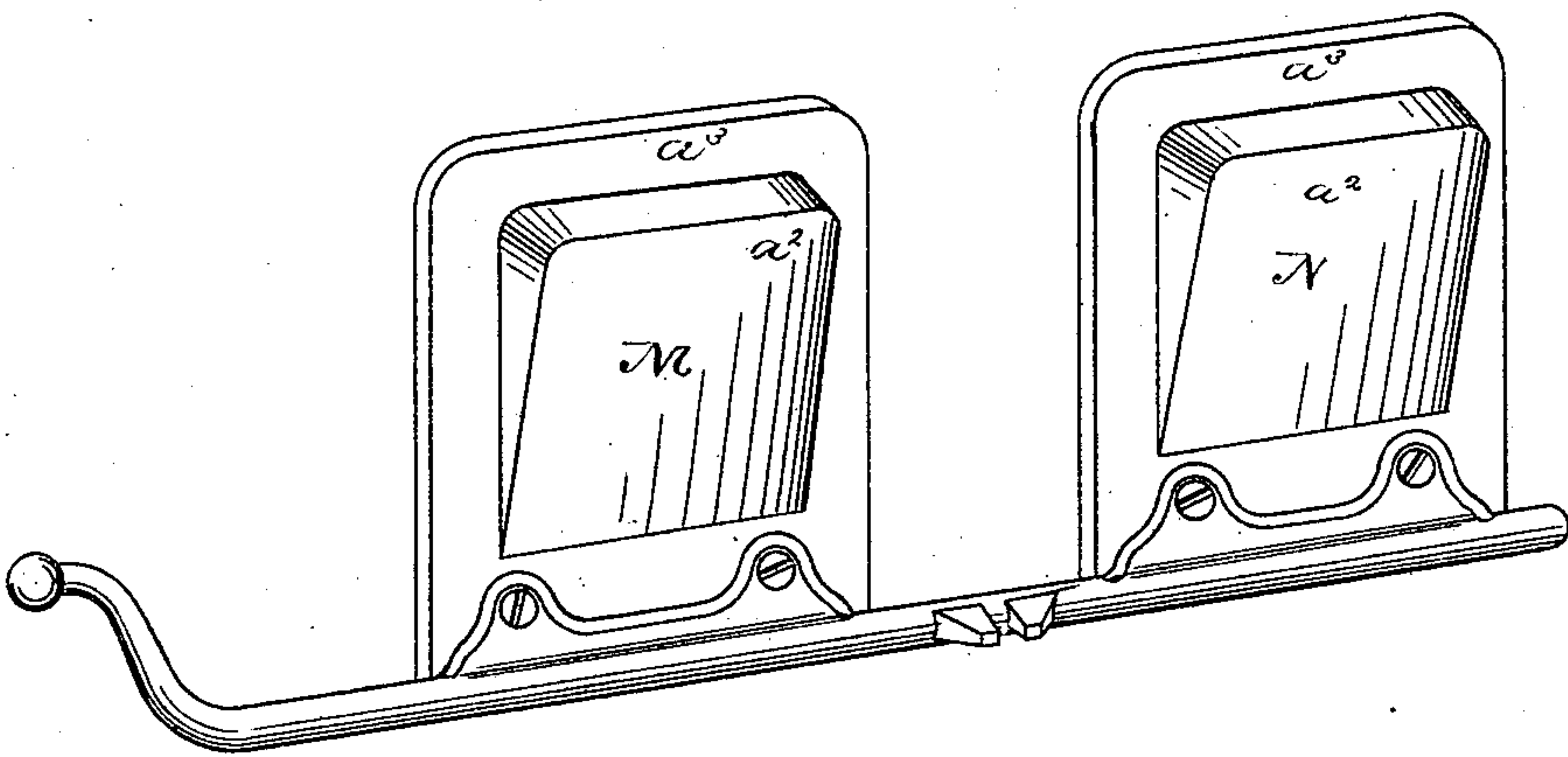


Fig-5.

WITNESSES.

J. M. Dolan
Fred. B. Dolan.

INVENTOR.

William E. Walker
by his attys
Russell Reynolds

UNITED STATES PATENT OFFICE.

WILLIAM E. WALKER, OF TAUNTON, MASSACHUSETTS.

STOVE.

SPECIFICATION forming part of Letters Patent No. 313,560, dated March 10, 1885.

Application filed February 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. WALKER, of Taunton, in the county of Bristol and State of Massachusetts, a citizen of the United States, have invented a certain new and useful Improvement in Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature, in which—

Figure 1 is a longitudinal vertical section of a stove having my improvement. Fig. 2 is a section on the line *xx* of Fig. 1. Fig. 3 is a horizontal section on the line *yy* of Fig. 1. Figs. 4 and 5 are views in perspective of the damper and damper-rod removed from the stove.

The invention relates to that class of stoves having a tank or reservoir for heating water; and it consists in combining with the flue of the section of the stove carrying the tank or reservoir and the oven or other equivalent flues of the other part of the stove two dampers arranged to open or entirely close openings from the down and up flues of the stove into the flue-space about the tank or reservoir, so that when the heat is caused to circulate about the oven of the stove or in any other portion of the stove there shall be no connection between the downflues of the stove and the flues about the tank or reservoir.

I have ascertained that if there is no damper for closing the opening between the space about the reservoir or tank and the uptake the draft of the stove is likely to be diminished, especially if the draft is naturally weak; and this action upon the draft because of this construction I account for in this way: The water in the tank or reservoir often becomes chilled or cold during the night or by the addition of fresh water. This will chill the air in the chamber or passage about the tank or reservoir, and this cool or chilled air escapes into the uptake, and if the draft is weak it will have an influence to disturb it and to check it, oftentimes to such an extent as to interfere with the baking, because the draft is only thrown down in this manner in a cooking-stove—that is, down into the base portion of the stove—when it is desirable to cause the heat to circulate about the oven,

and as this passage at the base is long and has one or two sharp turns it is desirable that the draft be not interrupted by any means, and if cool air enters this draft, or if there is an opportunity for the air which has lost some of its heat not to take a direct course upward, then the circulation of the heat through the flues and about the oven is imperfect.

Referring to the drawings, A represents the back plate of a stove containing my invention. B is the fire-pot. C is the downflue. E is the oven. F is the upflue. H is the reservoir or tank. I is the space about it; K, the opening in the back plate connecting the downflue with the space I. L is the opening in the back plate connecting said space with the upflue. M is the damper for closing the opening K; N, the damper for closing the opening L. I prefer that these dampers be arranged to swing respectively into the down and up take passages, so that they not only uncover the openings into the space about the tank or reservoir, but they also partially close the down and up flues below said openings.

I prefer to shape the back plate about the openings so that the dampers when closing said holes shall rest by gravity upon the plate. This I accomplish by forming recesses *a* in the front surface of the said plate, which extend inwardly therefrom, and which have the inclined ledge *a'*—that is, the recesses are deeper at the top than at the bottom. Each damper has the projecting portion *a²*, which shuts into the space bounded by the ledge, and also a flange, *a³*, which shuts upon the ledge *a'*, and the bottom portion of said recesses are open to allow the dampers to be slipped up into place from the back side of the plate. The pivot-bar to which the dampers are attached has suitable bearings upon the back side of the plate.

It will thus be seen that the dampers when closed are a little inclined from a vertical position and rest upon the ledges about the openings, and that when open they pass a vertical line and are more inclined upon the opposite side thereof.

I am aware that it is common to use one damper to close the opening between the downflue and the tank or reservoir space; but in stoves having a poor draft this does not seem

to be sufficient to prevent the escape of the chilled air from the space about the reservoir or tank into the uptake-passage, and thereby stopping the draft or making it irregular.

5 The advantages of this invention have already been stated.

It will be seen that by shaping the damper-seat and damper as described, in closing the openings K in the damper-plate, they are held
10 in place by gravity, and that the construction is cheap, simple, and desirable.

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

15 1. In a stove having a water reservoir or tank surrounded by a flue or space, I, the combination of the flue-plate A, separating the down and up take flues C F from said space I,

the two openings K therein, one of which connects the downflue and the other the upflue 20 with the space I, each of which openings is surrounded by the inclined ledge a' , with the hinged dampers M N, each of which has the projecting edge or flange a'' , which rests upon the ledge a' when the openings are closed by 25 the dampers, all substantially as and for the purposes described.

2. The combination of the plate A, having the recesses a , the walls of which support a rod or bar carrying the dampers M N, with 30 said rod or bar, all substantially as and for the purposes described.

WILLIAM E. WALKER.

Witnesses:

H. T. MONTGOMERY,
ELISHA T. JACKSON.