

(No Model.)

M. M. KOCH & J. ERBEN.
STOVE OR RANGE.

No. 570,485.

Patented Nov. 3, 1896.

Fig. 1.

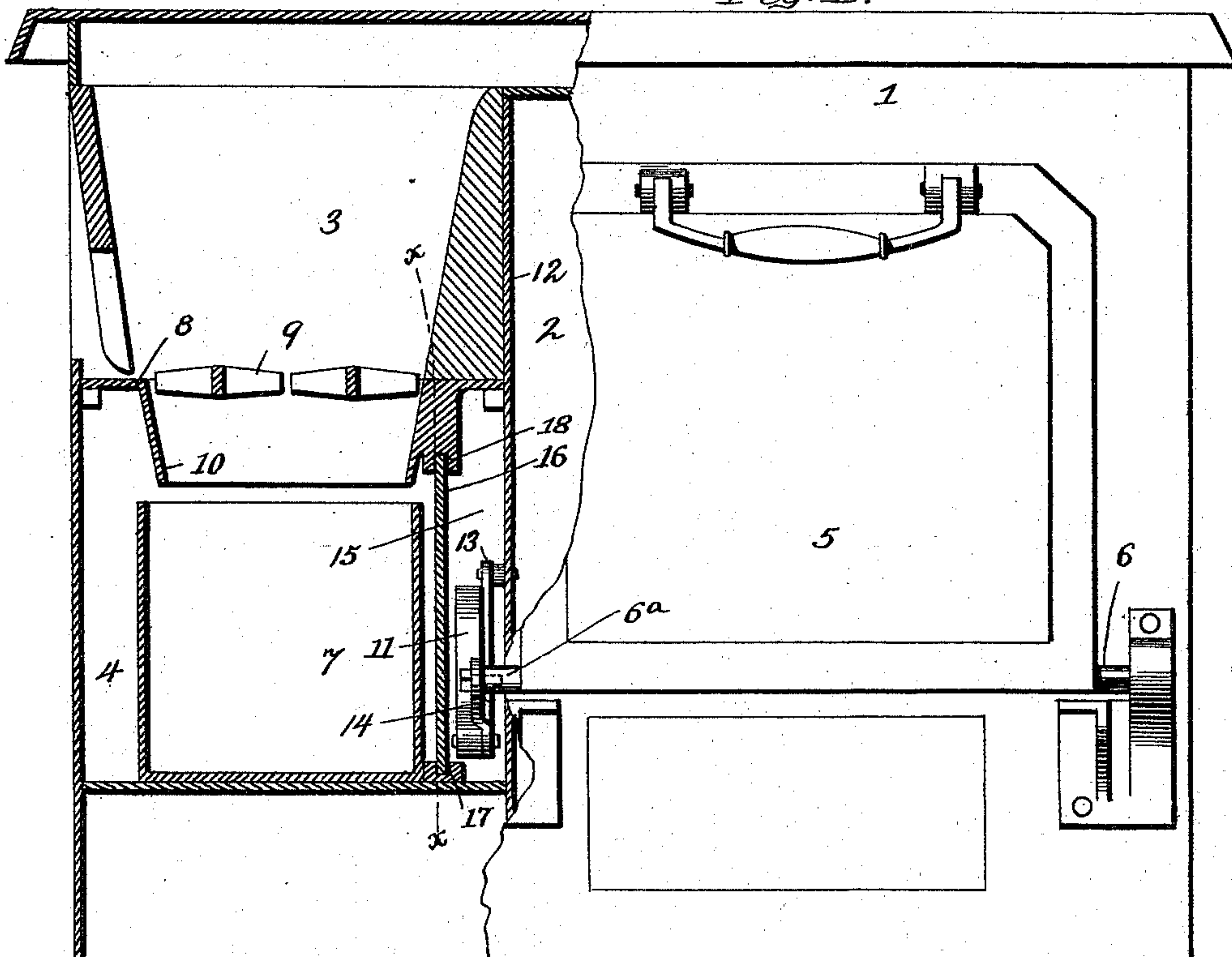


Fig. 2.

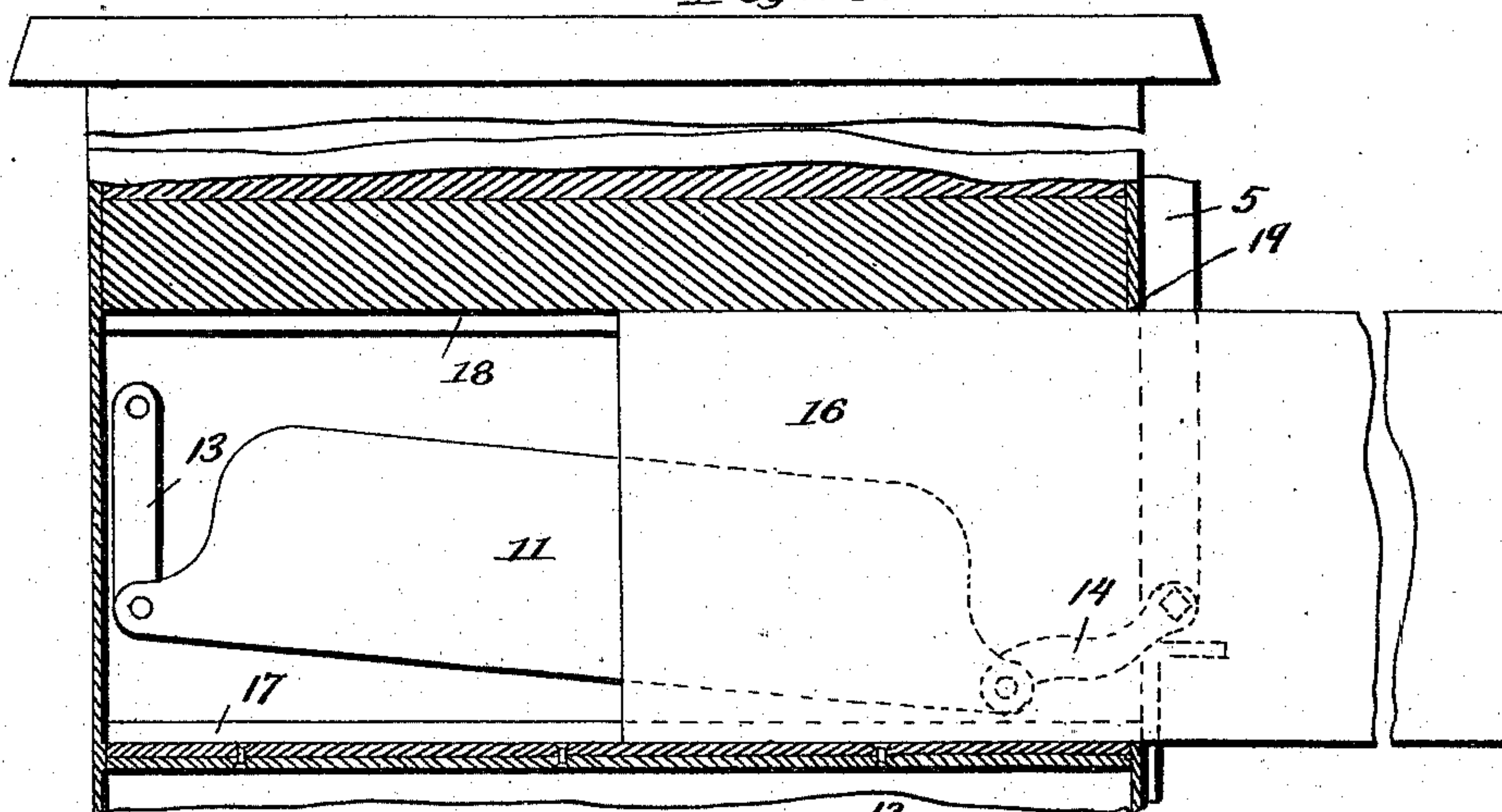
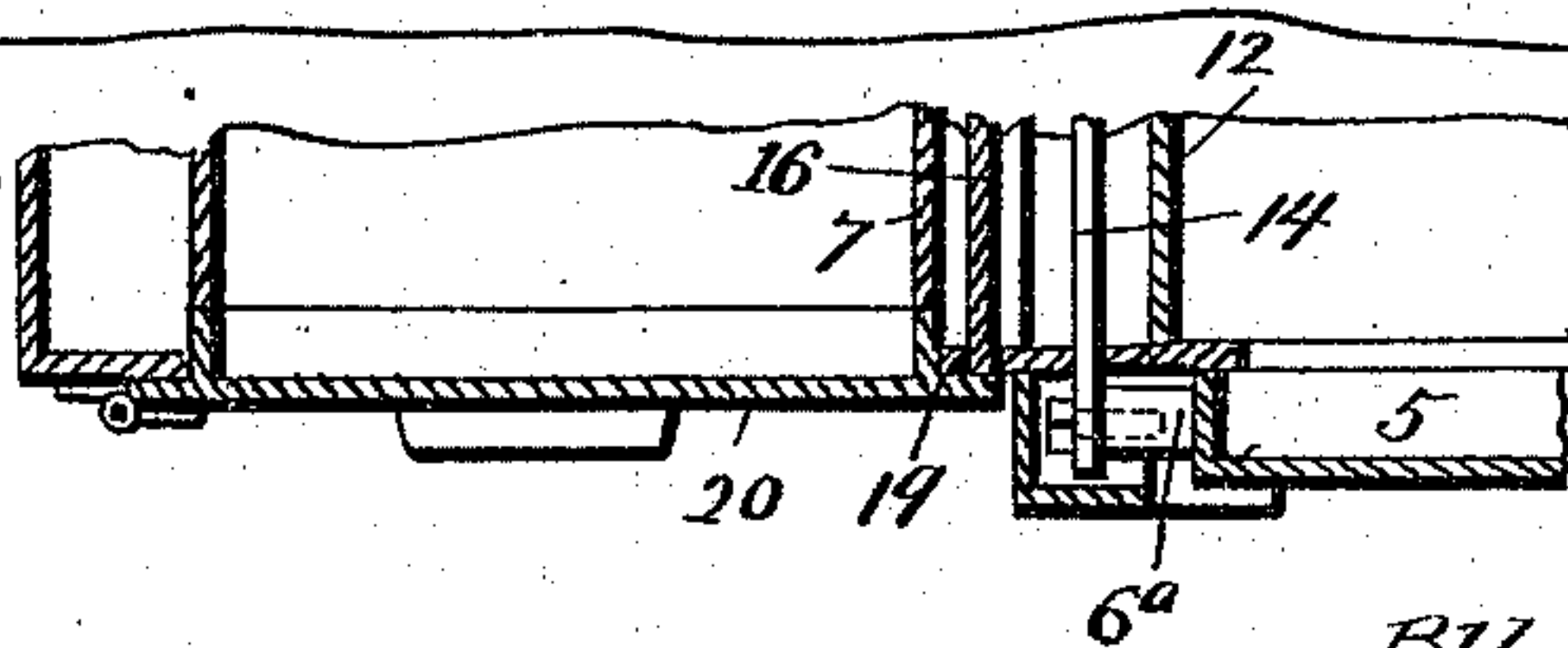


Fig. 3.



witnesses:

W. A. Rader
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UNITED STATES PATENT OFFICE.

MAX. M. KOCH AND JOHN ERBEN, OF CLEVELAND, OHIO; SAID ERBEN
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STOVE OR RANGE.

SPECIFICATION forming part of Letters Patent No. 570,485, dated November 3, 1896.

Application filed July 30, 1896. Serial No. 601,084. (No model.)

To all whom it may concern:

Be it known that we, MAX. M. KOCH and JOHN ERBEN, citizens of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Stoves or Ranges; and we do 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.

Our invention relates to improvements in that class of stoves or ranges which are equipped with weights for facilitating the closing of the oven-doors and boxes for containing the weights. These boxes for convenience and economy in construction are arranged between the ovens and ash-chambers of stoves or ranges, and consequently, notwithstanding the employment of the best possible construction and the use of putty for closing joints, fine ashes invariably sift into the boxes, and by occupying the same and settling on and round the weights interfere with the operation of the said weights and in course of time prevent such operation, and consequently prevent the closing of the oven-doors, thus necessitating repairs which, with the existing constructions, can only be made by skilled workmen.

The general object of our invention is to provide a weight-box embodying such a construction that access may be readily had to all parts of its interior, so as to permit of the ashes being removed therefrom without the employment of skilled labor, and one which is no more liable to be filled with ashes than the boxes at present in use.

Another object of the invention is to provide means for guiding the ashes from the fire-box to a receptacle placed in the ash-chamber, so as to lessen the liability of such ashes sifting into the weight-box.

The invention in all its details will be fully understood from the following description and claims when taken in conjunction with the annexed drawings, in which—

Figure 1 is an elevation of a stove or range embodying our invention, with parts in section. Fig. 2 is a detail broken section taken in the plane indicated by the line *xx* of Fig. 1, and Fig. 3 is a detail horizontal section show-

ing the door of the ash-chamber and the parts contiguous thereto.

Referring by numerals to said drawings, 1 indicates the body of a stove or range which, like those at present in use, has an oven 2 and a fire-box 3 and ash-chamber 4 at one side of the oven; and 5 indicates the oven-door, which is of the drop type—that is to say, has trunnions 6^a at its lower edge journaled in suitable bearings on the body 1, whereby it may be lowered to open the oven and raised to close the same.

7 indicates a removable receptacle, of any suitable construction, which is placed in the chamber 4 to receive ashes; and 8 indicates a frame which is arranged at the base of the fire-box and is suitably secured to the body 1. This frame 8 carries a grate 9, of any suitable construction, and is provided, as better shown in Fig. 1, with the inwardly-inclined depending flanges 10, which are designed and adapted to guide or chute ashes into the receptacle 7, and thereby lessen the liability of the same getting into the weight-box, hereinafter described.

11 indicates the weight which is designed to facilitate or render easy the closing of the door 5. This weight 11 is arranged transverse of the stove or range at the side of the oven wall 12, and its end remote from the stove front is loosely connected to the pendent link 13, loosely connected to the wall 12, while its end contiguous to said front is loosely connected to an arm 14, fixed on the trunnions 6^a of the door 5, whereby it will be seen that when the oven-door is raised a certain distance the weight will operate to complete the closing movement of the same. The weight 11 is contained in a box 15, and in the present embodiment of our invention this box is formed by the rear, front, and bottom walls of the body 1, the oven wall 12, the frame 8, and the removable plate or wall 16. This plate or wall 16 extends the full width of the stove or range, and in the present embodiment of the invention it is arranged at its lower edge in a groove formed in a casting 17, secured to the stove bottom, and at its upper edge in a groove 18, formed in one of the flanges 10 of frame 8, which is increased in thickness for the purpose, as shown.

The plate or wall 16 rests in an opening 19

in the front wall of the body 1, or it may rest in the door-opening of the ash-chamber 4, whereby it will be seen that it may be entirely removed from the stove body, so as to permit of ready access being had to all parts of the box 15 for the removal of ashes therefrom when the same is necessary. The removal of the said plate or wall 16 may be effected by hand without the aid of any implement, and may be as easily accomplished by a cook or unskilled workman as by one familiar with stove construction; and such ready removal will permit of the box 15 being frequently cleaned, so as to always insure free and easy working of both the weight and the door which it actuates, which is an important desideratum.

20 indicates a door which is designed to close the door-opening of the ash-chamber and also the opening through which the plate or wall 16 is withdrawn. This door may be of any suitable type, but we prefer to have it hinged, as illustrated.

It will be observed from the foregoing that, notwithstanding the many advantages which a weight-box embodying our invention possesses over the ordinary weight-box, it is no more costly than the ordinary weight-box in the first instance, and is much easier to keep in repair, and also permits of the weight mechanism being more readily repaired when necessary.

We do not desire to be understood as confining ourselves to the specific weight shown for operating the door 5, as any other suitable weight may be employed; and we also do not desire to be understood as confining ourselves to the specific construction and arrangement of parts shown in the present embodiment of our invention, as such changes or modification may be made in practice as fairly well within the scope of the invention.

When desired, the plate or wall 16 may be bolted to a lug in the stove-body, so as to prevent warping of the plate. When this is done it is obvious that the bolt must be removed before the plate or wall can be removed to

afford access to the interior of the weight-box.

Having described our invention, what we claim is—

1. A stove or range comprising an oven, an ash-chamber arranged at the side of the oven, a weight-box arranged intermediate of the oven and ash-chamber and having a removable wall, a door for closing the oven, and a weight arranged in the weight-box and connected with the door, substantially as and for the purpose set forth.

2. A stove or range comprising an oven, an ash-chamber arranged at the side of the oven, a weight-box arranged intermediate of the oven and ash-chamber and having a slidable and removable wall contiguous to the ash-chamber and arranged at its upper and lower edges in guideways, a door for closing the oven, and a weight arranged in the weight-box and connected with the door, substantially as and for the purpose set forth.

3. A stove or range comprising an oven, a fire-box and an ash-chamber arranged at the side of the oven; the said chamber being adapted to receive a removable ash-receptacle, a grate-frame arranged at the base of the fire-box and having inwardly-inclined depending flanges or chutes and also having the flange or chute contiguous to the oven provided with a guideway, a slidable and removable wall arranged in said guideway and in a guideway at the bottom of the stove or range and serving in conjunction with the grate-frame, the oven walls and bottom, front and rear walls of the stove to form a box, a door for closing the oven, and a weight arranged in the said box and connected with the door, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

MAX. M. KOCH.
JOHN ERBEN.

Witnesses:

LENA ERBEN,
PHILIP KNAPPENBERGER.