

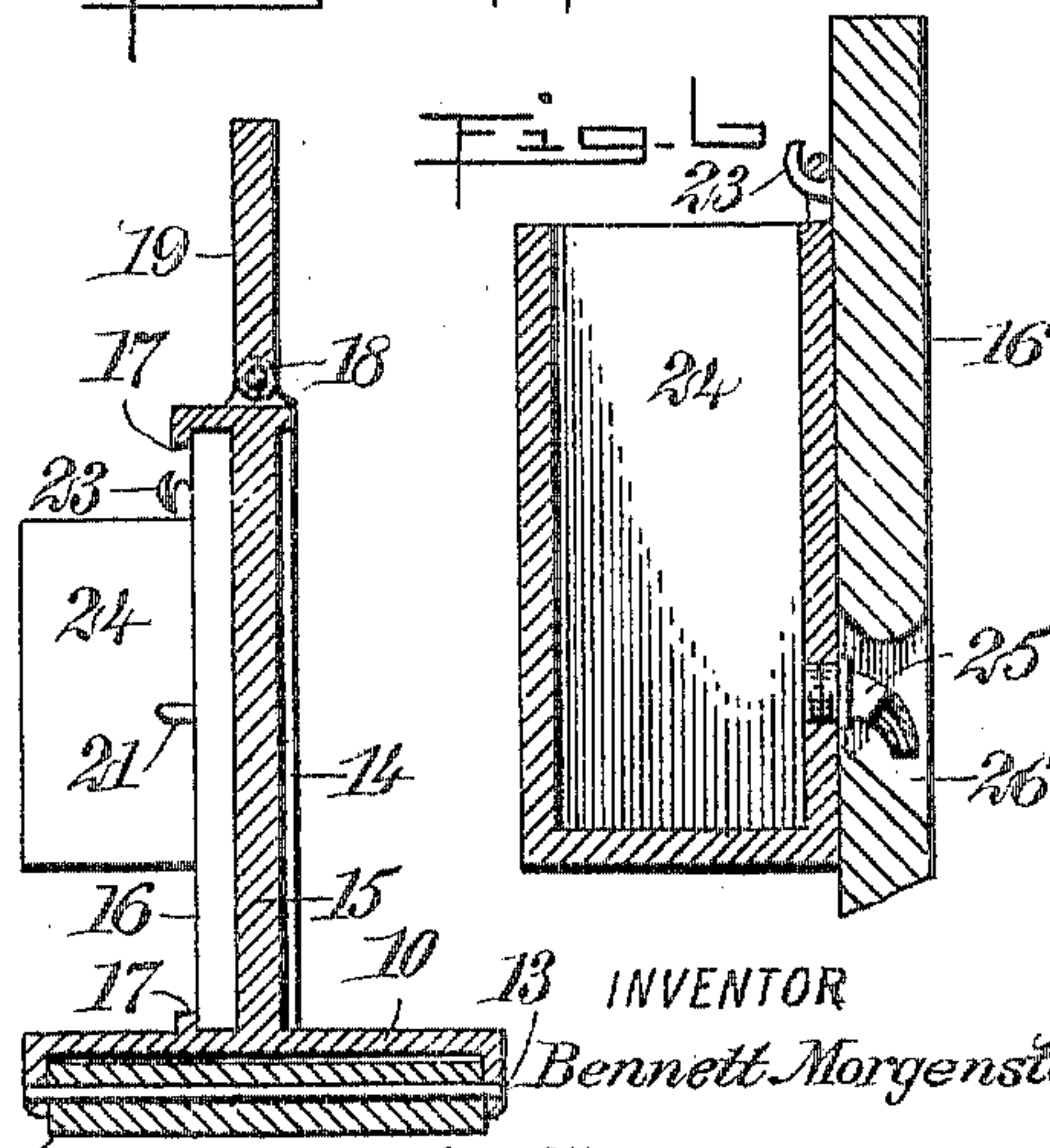
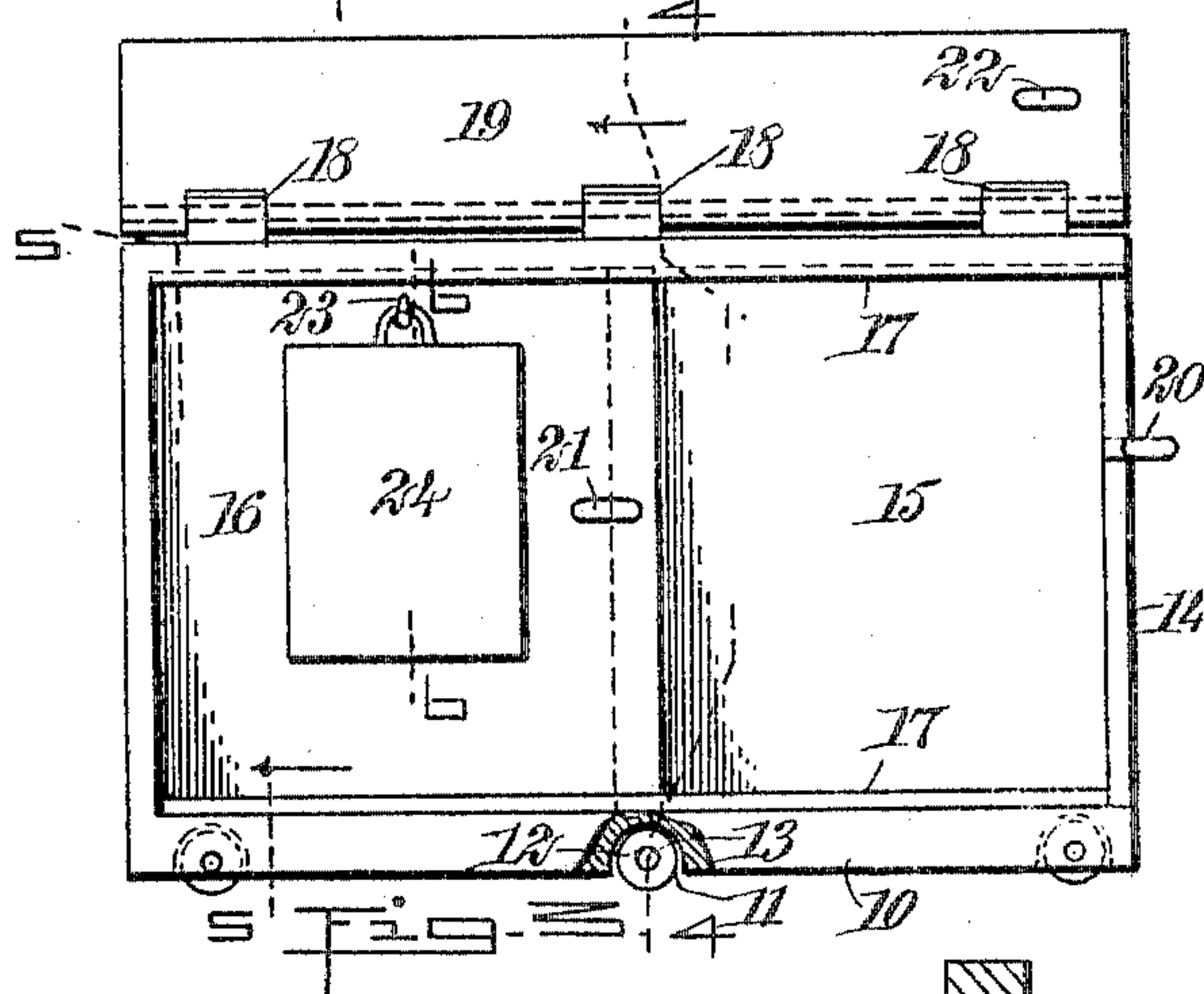
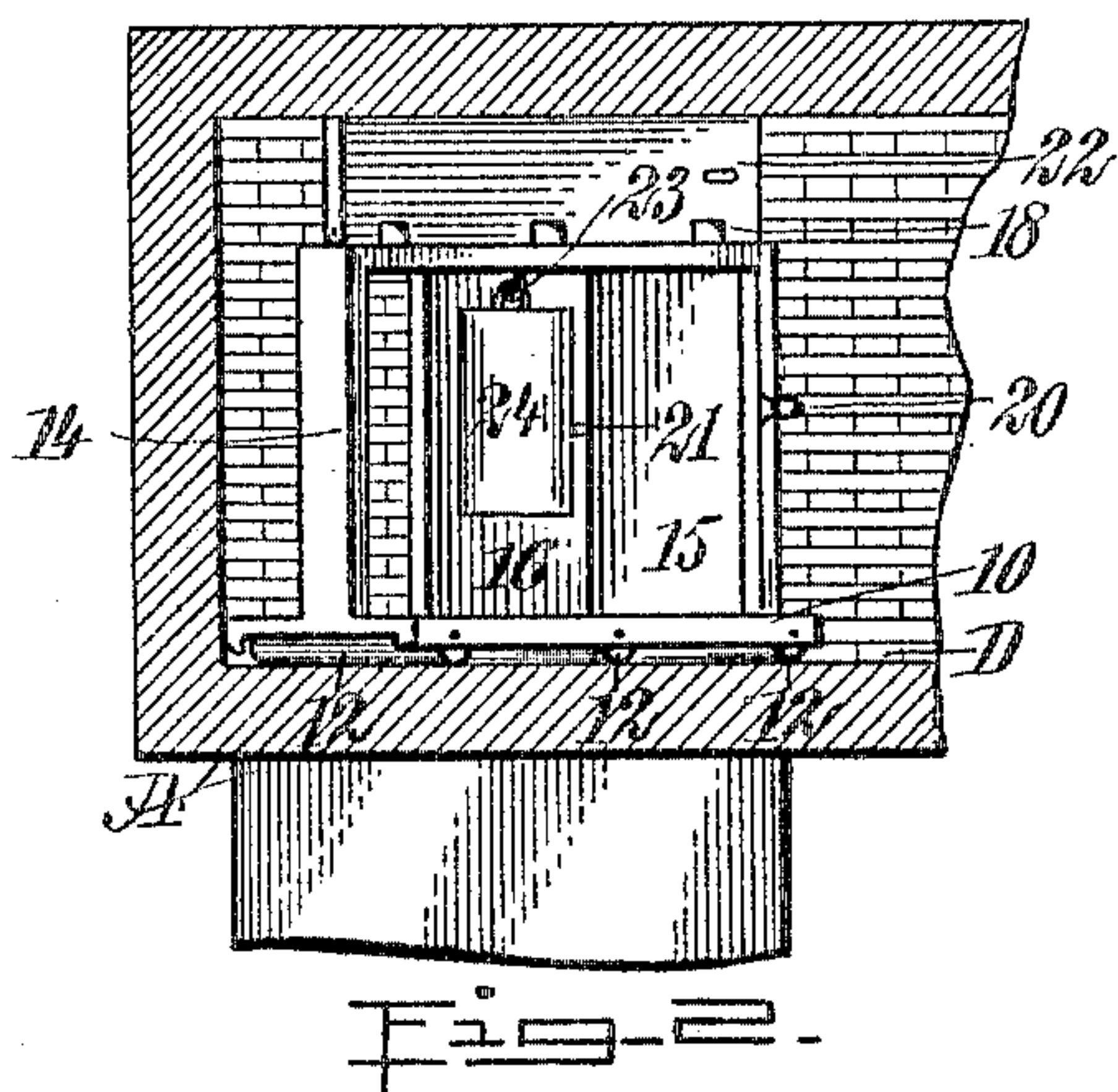
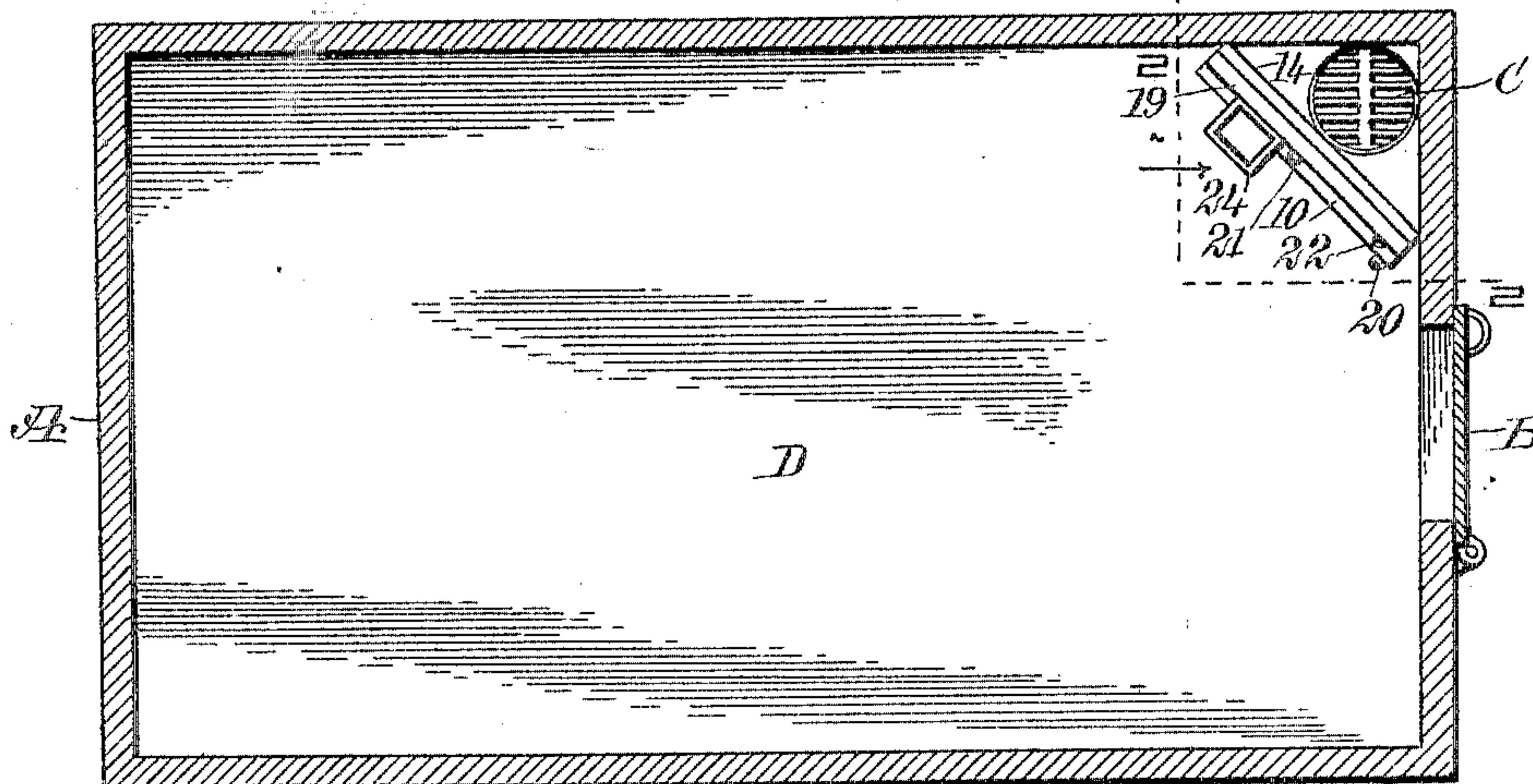
No. 804,615.

PATENTED NOV. 14, 1905.

B. MORGENSTEIN.

OVEN SCREEN.

APPLICATION FILED APR. 12, 1905.



WITNESSES:
A. Jarvis.

S. H. S. 12 Fig. 5.

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BENNETT MORGENSTEIN, OF SHENANDOAH, PENNSYLVANIA.

OVEN-SCREEN.

No. 804,615.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed April 12, 1905. Serial No. 255,162.

To all whom it may concern:

Be it known that I, BENNETT MORGENSTEIN, a citizen of the United States, and a resident of Shenandoah, in the county of Schuylkill and State of Pennsylvania, have invented a new and Improved Oven-Screen, of which the following is a full, clear, and exact description.

My invention relates to means for controlling the heat and moisture of ovens, and more particularly those employed in commercial baking. Its principal objects are to provide a simple and effective device for these purposes.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 illustrates one embodiment of my invention in use in an oven, which is shown in horizontal section. Fig. 2 is a sectional detail through said oven on the line 2 2 of Fig. 1. Fig. 3 shows my improved screen in side elevation, parts being broken away. Figs. 4 and 5 are vertical transverse sections thereof through on the lines 4 4 and 5 5, respectively, of Fig. 3; and Fig. 6 is an enlarged broken transverse vertical sectional detail on the line 6 6 of Fig. 3.

I have here illustrated an oven A, having at one end a central door B and in the corner of which at one side of this door is a grate C for the fire. Across the oven extends the usual baking-surface D. My screen includes a base 10 in transverse recesses 11, in the under side of which are mounted rolls 12, carried by shafts 13, these projecting below the base and allowing the device to be readily moved over the baking-surface. From the center of the base rises a substantially vertical frame 14 of a wall or screen proper, which preferably extends for the full length of the base and is of such height that at its top it approaches the upper wall of the oven. One section of the frame-opening is permanently closed by a fixed panel 15, beyond which is an opening extending to the opposite side of the frame. This opening is provided with a closure conveniently in the form of a sliding panel 16, movable in ways 17 17, formed in the base and the upper bar of the frame. This panel 16 may be moved back and forth in the ways to provide for a greater or less area of opening. Hinged at 13 upon the top of the frame is a flap 19, which moves with sufficient frictional resistance to insure its remaining in any position in which it is placed and which is of such width that its outer edge when it is

turned to some angle above the horizontal will contact with or closely approach the top of the oven. Hooks 20 and 21, attached to the frame and door, respectively, serve to receive the hooked end of a suitable implement and enable the device to be rolled back and forth in the oven or panel 16 to be slid in its ways. The flap is shown as having a socket 22, the dimensions of which permit it to receive the same implement to allow its angular position to be varied.

Near the upper portion of the sliding panel, at the same side as the hook 20, is secured a hook 23 to support a receptacle 24 open at its top and adapted to receive a supply of liquid. From the inner lower portion of this receptacle a tube or spout 25 projects into an opening 26, extending through the panel, this spout having a contracted delivery-opening.

In ovens of the general character of that which I have illustrated when the proper baking heat has been attained it is customary to deaden the fire to maintain a uniform temperature and prevent scorching the goods nearest to it by placing upon the surface of the coals a layer of wet ashes. This is objectionable in that it takes considerable time, is uncleanly, and the covering is liable to burn off during the baking, the protection thus being lost. It also destroys the fire, so that it must be dumped and rebuilt for each baking. With my improved device when it is desired to control the heat it is introduced into the oven and rolled into place between the grate and goods upon the baking-surface, as is particularly illustrated in Figs. 1 and 2 of the drawings. With the slide drawn across the opening and the flap raised into contact with the oven-top the direct heat is now entirely cut off from the remainder of the oven. If it is desired that a certain portion of the heat shall be transmitted directly to the goods, the slide is opened to a greater or less extent. If instead one wishes to obtain a diffused heat, the slide is allowed to remain closed and the flap turned down somewhat from the oven-top, forming a space through which the hot air passes and is distributed generally over the goods. If the fire lowers and the screen is found to reduce the heat too much, even with the maximum opening, it may be readily rolled to the door and entirely removed from the oven.

Better results are obtained in baking if a certain amount of moisture is introduced, this securing a lighter product and one having

a more attractive appearance. For this purpose bakers customarily spray water into the oven with a hose, which is ineffective, because the quantity is at first too great and then the supply rapidly evaporates, necessitating an additional spraying, these being frequently repeated. In using my oven-screen after it is introduced the receptacle which is on the side toward the baking-surface may be filled with a hose. The water now gradually flows through the contracted opening of the spout, down the screen and onto the surface adjacent to the grate and is there vaporized, it passing with the hot air through the screen-opening or over the flap and is thus quite uniformly distributed over the goods. When necessary, the receptacle may be refilled; but the capacity is such that this need only be done at infrequent intervals.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with an oven having a grate and a baking-surface, of a screen between the grate and baking-surface comprising a base, and a wall rising from the base and having an opening, and a closure for the opening.

2. The combination with an oven having a grate and a baking-surface, of an oven-screen comprising a base and a wall rising from the base and having an opening, a slide mounted in ways upon the wall and base, and being movable across the opening.

3. An oven-screen comprising a base, a wall rising from the base, and a flap hinged upon upper edge of the wall.

4. An oven-screen comprising a base, a wall rising from the base and having an opening, a closure for the opening, and a flap hinged upon upper edge of the wall.

5. The combination with an oven having a grate and a baking-surface, of a screen between the grate and baking-surface comprising a base, a wall rising from the base and having an opening, a closure for the opening, and rolls extending transversely of the base.

6. The combination with an oven having a grate and a baking-surface, of a screen between the grate and baking-surface comprising a base, a wall rising from the base, and a receptacle carried by the wall and having a contracted outlet-opening.

7. The combination with an oven having a grate and a baking-surface, of a screen between the grate and baking-surface comprising a base, a wall rising from the base, and a receptacle carried by the wall on the baking-surface side and having a contracted outlet delivering at the grate side.

8. The combination with an oven having a grate and a baking-surface, of a screen between the grate and baking-surface comprising a base, a wall rising from the base and having an opening, and a receptacle carried by the wall and having a delivery-tube extending into the opening.

9. The combination with an oven having a grate and a baking-surface, of a screen situated between the grate and baking-surface, and a receptacle carried by the screen upon the side toward the baking-surface and having a contracted opening delivering upon the grate side of the screen.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BENNETT MORGENSTEIN.

Witnesses:

EDWARD G. J. CUFF,
ARTHUR WHOMSLEY.