O. O. OWENS.

REFRIGERATOR.

APPLICATION FILED OCT. 5, 1909.

952,627. Patented Mar. 22, 1910.

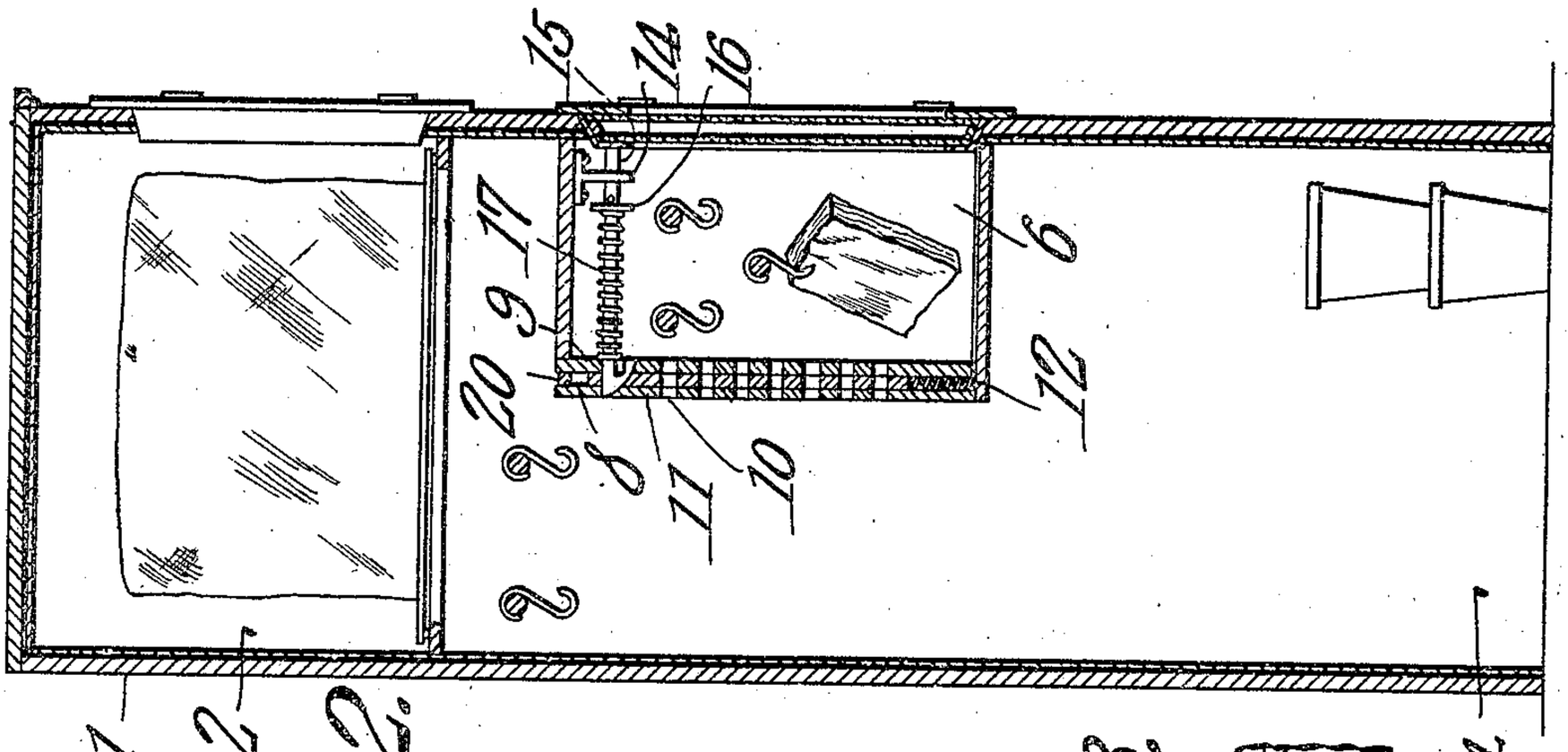

Fig. 2.

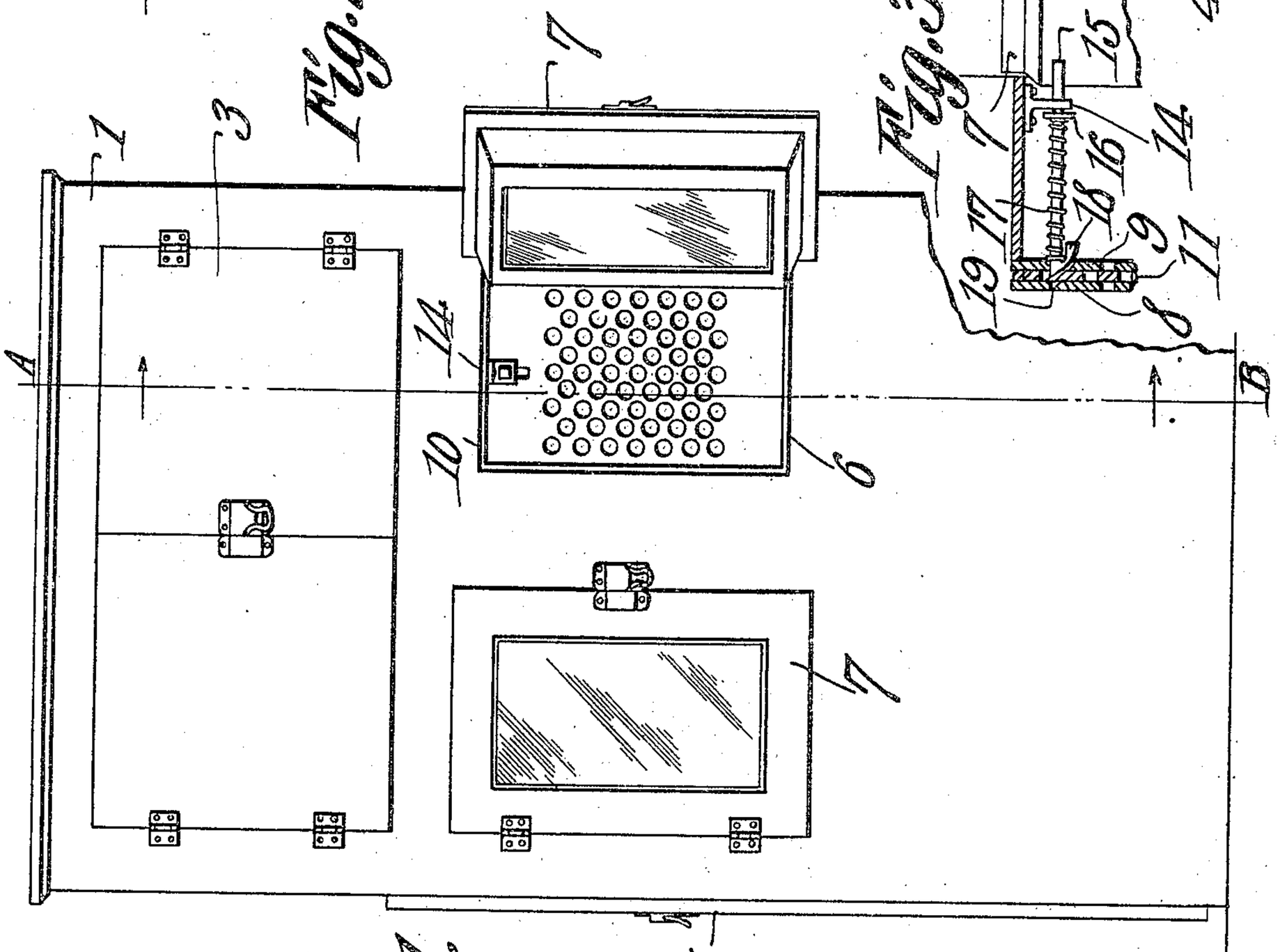

Fig. 1.

Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

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REFRIGERATOR.

952,627. Specification of Letters Patent. Patented Mar. 22, 1910.

Application filed October 5, 1909. Serial No. 521,042.

To all whom it may concern:

Be it known that I, ODIE O. OWENS, a citizen of the United States, residing at Guthrie, in the county of Logan and State of Oklahoma, have invented a new and useful Refrigerator, of which the following is a specification.

It is the object of this invention to provide a refrigerator comprising communicating compartments, means being provided for normally cutting off the communication between the compartments, when the door of the refrigerator is open, and for establishing the communication between the compartments, when the door of the refrigerator is closed; the invention further including a door operated mechanism for actuating the aforementioned means; other and further objects being made manifest hereinafter, as the description of the invention progresses.

The drawings show but one form of the invention, and it is to be understood that changes, properly falling within the scope of what is claimed, may be made, without departing from the spirit of the invention.

Similar numerals of reference are employed to denote corresponding parts throughout the several figures of the drawings, wherein;—

Figure 1 is a front elevation of the device, parts being broken away; Fig. 2 is a vertical transverse section upon the line A—B of Fig. 1; and Fig. 3 is a sectional detail designed to show the plunger, and the manner in which the same coöperates with the slide, to move the latter.

The invention includes, as a fundamental element, a case 1, having in its upper end, an ice-compartment 2, accessible through doors 3 located upon the front of the case. Below the ice-compartment 2, there is a large compartment 4, which for convenience will be denominated the wholesale compartment, the wholesale compartment being accessible through a door 5, located at the end of the case 1. The wholesale compartment 4 is made to inclose a smaller retail compartment 6, accessible through a door 7, upon the front of the case 1, there being any desired number of these retail compartments 6, located within the wholesale compartment 4; in the present instance, I have shown two of them.

The retail compartment 6 is provided with a double wall, comprising a rear portion 8 and a front portion 9, spaced apart. The walls 8 and 9 are provided with alined perforations 10, and between the walls 8 and 9, is adapted to reciprocate vertically, a slide 11, provided with perforations adapted to be brought into alinement with perforations 10 in the walls 8 and 9. The slide 11 is actuated to upward movement, by a compression spring 12, located between the walls 8 and 9, and bearing upon the bottom of the retail compartment 6. There may be any number of these compression springs 12, and they may be of any form. The springs 12 operate to lift the slide 11, so that it shall normally close the perforations 10 in the walls 8 and 9, the walls 8 and 9 carrying between them, a stop 20, adapted to limit positively, the upward movement of the slide 11, so that the same, under the action of the springs 12, will normally close the perforations 10 in the walls 8 and 9.

The upper wall of the retail compartment 6, carries a depending hanger 14, in which is mounted for reciprocation, transversely of the case 1, a plunger 15, a collar 16 being mounted upon the plunger 15, between the hanger 14 and the wall 9, the collar 16 serving as an abutment for a compression spring 17, the inner end of which is adapted to bear against the front face of the wall 9. The engagement between the collar 16 and the hanger 14 obviously serves to limit the movement of the plunger 15 under the action of the spring 17. The plunger 15 is provided with a beveled head 18, adapted to engage a beveled seat 19, in the slide 11, in order to depress the slide, to bring the perforations of the slide in alinement with the perforations 10 in the walls 8 and 9. As shown to best advantage in Fig. 3, the head 18 is extended beneath the spring 17. By this construction, the end of the spring is prevented from becoming engaged in the opening in the portion 9 of the double wall, or otherwise interfering with the engagement between the beveled end of the plunger and the slide.

The operation of the device is as follows:—Where the parts are in the positions shown in Fig. 2 of the drawings, the beveled head 18 of the plunger 15, being in engagement with the beveled seat 19 of the slide 11, will depress the slide 11, so that the perforations thereof will be alined with the perforations of the walls 8 and 9, the outer end

of the plunger 15 being engaged by the door 7 in its closed position, and the spring 17 being compressed. When the parts are thus positioned, it is obvious that the cold air from the ice compartment 2 is free to circulate, in the first instance, through the wholesale compartment 4, and subsequently, through the retail compartment 6. When however, the door 7 is swung open, as shown in Fig. 1, in order to give access to the relatively small retail compartment, the plunger 15 will be released, and will be actuated outwardly, by the compression spring 17. The beveled head 18 of the plunger will thus be retracted from its engagement with the seat 19 of the slide 11, and the slide, under the impulse of the springs 12, will move upwardly, the perforations 10 in the walls 8 and 9 being closed, and the retail compartment 6 being cut off from the wholesale compartment 4. By this construction, when the retail compartment 6 is open for the removal of merchandise, the temperature of the larger wholesale compartment 4 will not be raised.

Having thus described the invention, what is claimed is:—

A refrigerator provided with a door and having a perforated double wall defining separate compartments within the refrigerator; a perforated slide and a spring for actuating the slide to close the perforations in the wall, both located between the constituent portions of the double wall; a reciprocating plunger supported at one end adjacent the door and at the other end having a beveled head supported in the wall and arranged to engage the slide to aline the perforations of the slide with those of the wall, the plunger being engageable by the door to operate the slide; a compression spring surrounding the plunger and bearing at one end against the plunger and at the other end against the wall, the head being extended beneath the spring at its wall-engaging end; and means for limiting the movement of the plunger under the action of the spring.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ODIE O. OWENS.

Witnesses:
ROLAND C. BOOTH,
C. E. PREINKERT.