

No. 742,540.

PATENTED OCT. 27, 1903.

J. WILLS.
REFRIGERATOR BUILDING
APPLICATION FILED APR. 27, 1901.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

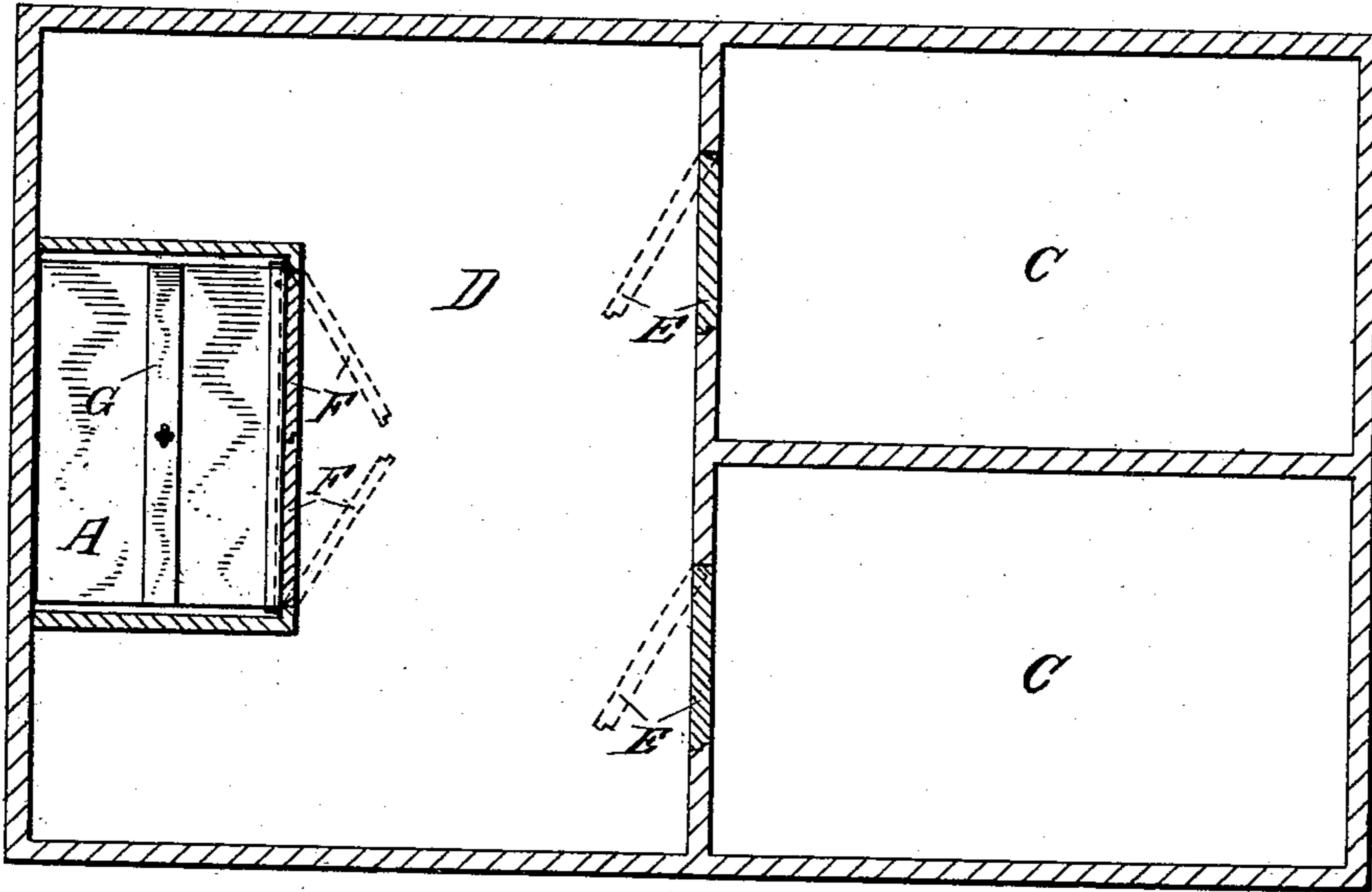


Fig. 2.

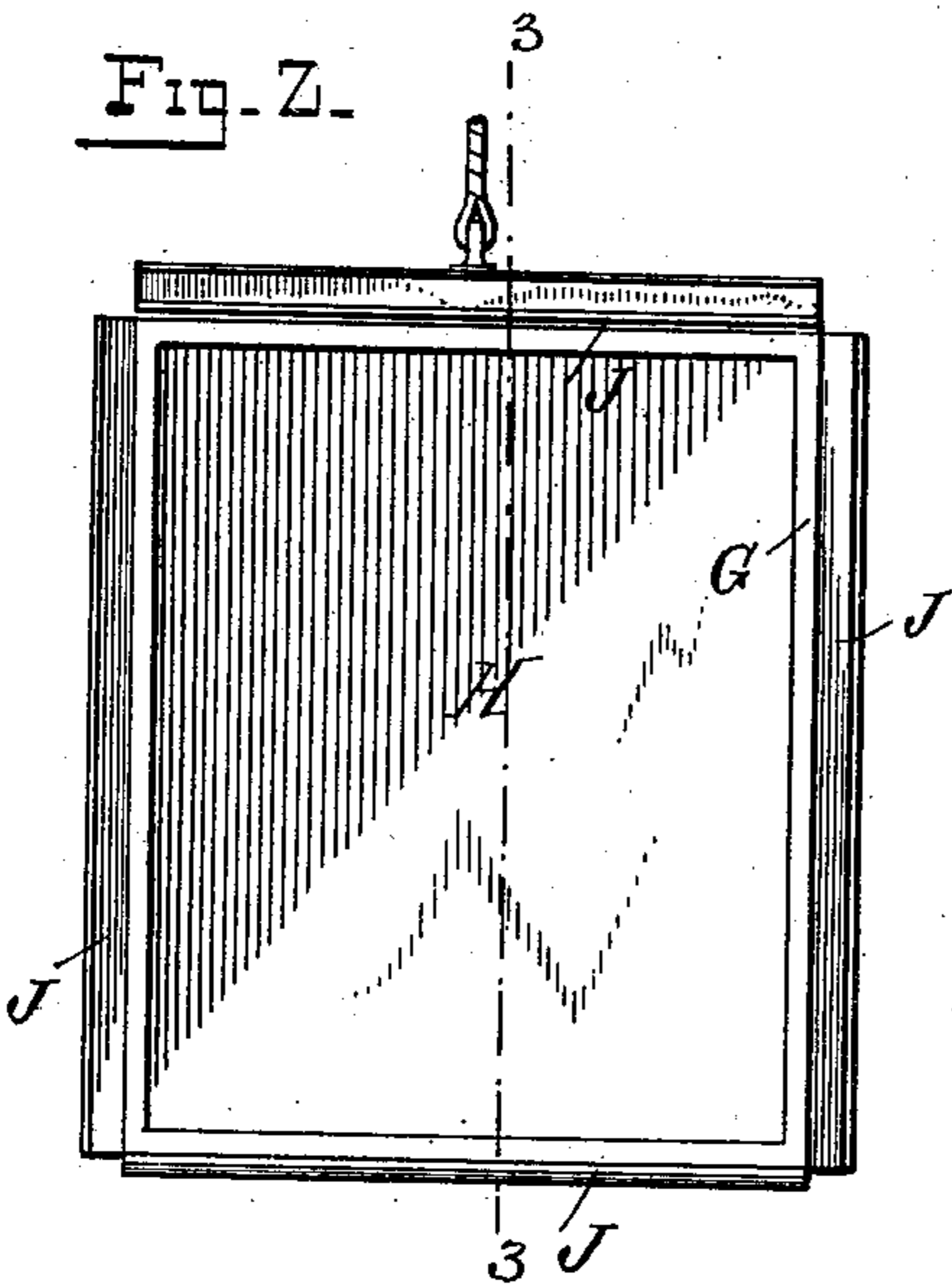
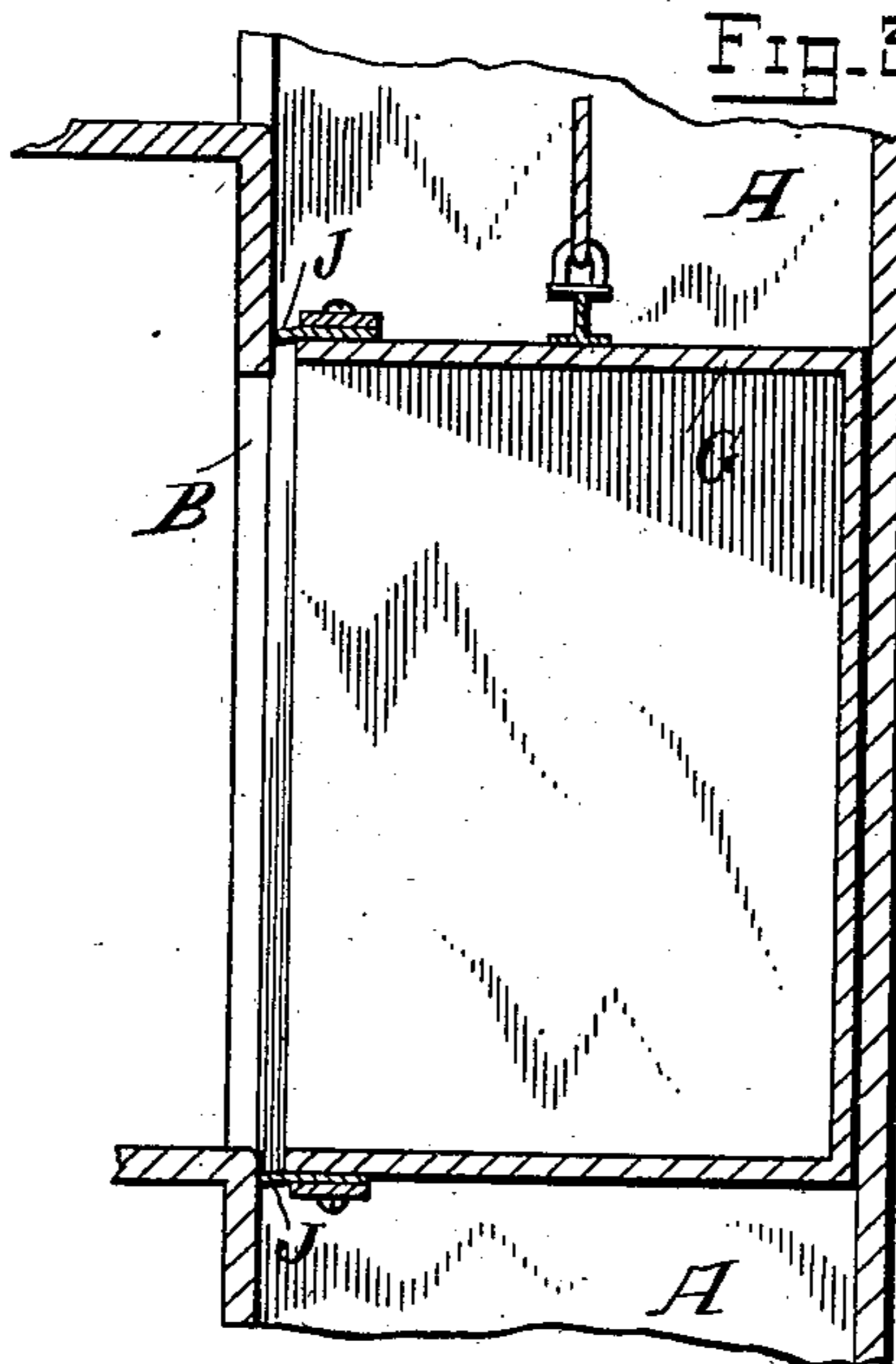


Fig. 3.



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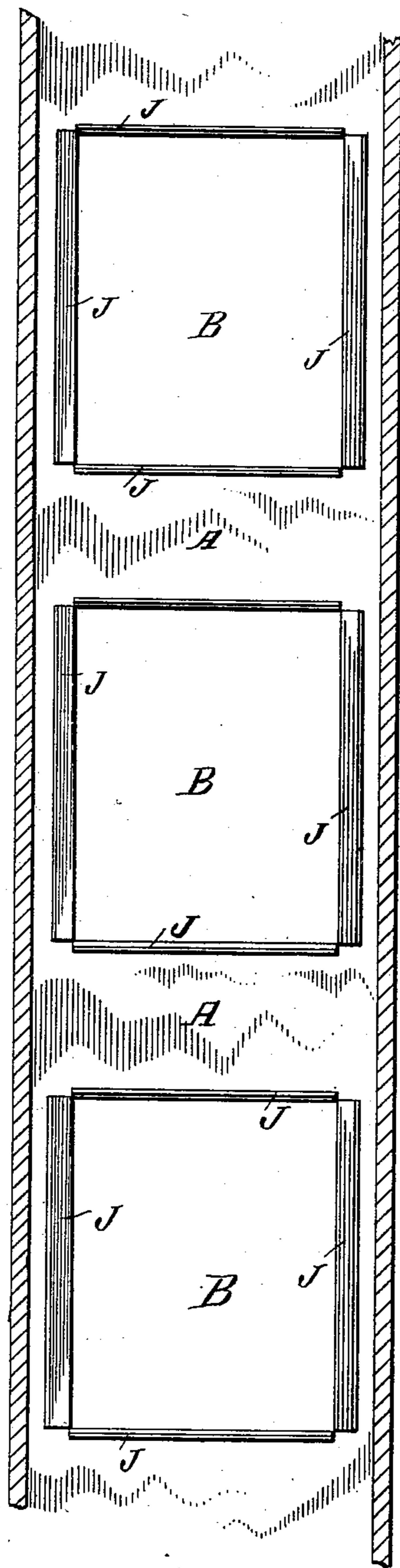
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2 SHEETS—SHEET 2.

Fig. 4.



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UNITED STATES PATENT OFFICE.

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REFRIGERATOR-BUILDING.

SPECIFICATION forming part of Letters Patent No. 742,540, dated October 27, 1903.

Application filed April 27, 1901. Serial No. 57,815. (No model.)

To all whom it may concern:

Be it known that I, JAMES WILLS, a citizen of the United States, residing in the borough of Manhattan, in the city, county, and State of New York, have invented certain new and useful Improvements in Refrigerator Rooms or Buildings, of which the following is a specification.

Heretofore in refrigerating plants and cold-storage buildings it has been customary where elevators were employed to convey merchandise from one floor to another to provide a vestibule or anteroom between the elevator-shaft and the cold rooms in order that the cold air in the latter compartment should not escape up or down the elevator-shaft while the entrance thereto was open. This escape of the cold air was made possible because the cab did not fit the shaft and the shaft-openings with sufficient closeness to prevent a free and extensive movement of air at and around its sides or edges and also because during the rush hours of business the doors between the rooms were often left open. To obviate these difficulties as much as possible, the anteroom was provided as a sort of air-lock or buffer, and the space so employed was by reason of the shifting temperature rendered useless for storage and was consequently a loss of space. This room was also by reason of the differing temperatures wet and musty and always unsanitary. My present invention is designed to utilize this space and make it clean and wholesome; and to this end I make the cab practically air-tight, except the open face, and provide flexible flaps which bridge over and between the edges of the cab and the corresponding opening in the elevator-shaft. The result will be that while the cab is discharging or taking on goods the air in the adjoining room cannot escape through or around it. The room and space heretofore rendered unavailable for storage purposes can thus be utilized.

I will proceed to describe my invention in connection with the accompanying drawings, which form a part of this specification.

Figure 1 represents a plan view of a part of a refrigerator-building. Fig. 2 is a front view of the elevator-cab, showing the air-confining bridge-pieces applied. Fig. 3 is a vertical section of the same, taken on the line

3 3 of Fig. 2. Fig. 4 is a front view of the shaft-opening, showing the bridge-pieces placed thereon. This is an alternative construction.

In the drawings, A represents an elevator-shaft having openings B, corresponding with the various floors of the building.

C is a cold-storage room, and D is a room through which the elevator-shaft is built and located between the elevator-shaft and the cold-storage room for the purpose of providing an air-lock or buffer between the cold-storage room and the elevator-shaft. Doors E are provided between these rooms and doors F between the room D and the shaft A. I purpose in my present improved system to utilize this anteroom D as a part of the regular cold-storage space, and I refer to it here as an ante-room or air-lock in order to explain the prior and present state of the art and to distinguish between the same and my present invention and method.

At G, I show the cab or car of the elevator. In one form of my invention, as shown in Fig. 2, I place around the edges of the open side H of the cab or car collapsible or flexible extensions, of such size, arrangement, and structure that when the cab is contiguous to or covers an opening B in the elevator-shaft A the said extensions J will automatically close up or take up the space ordinarily left around the opening into the shaft between the cab and the floors or sides of the building and in such a manner that the cab itself being air-tight, or approximately so, aside from the open face, the cab will for the time being become a part of the room D and all mechanical rush of the air through the cracks or spaces will be done away with. When, therefore, the cab or car comes into position before an opening in the elevator-shaft and the door or doors F, ordinarily placed between the shaft and the contiguous room, are opened, the spaces in the cab and in said room are simply merged temporarily. They become for the moment one room. Thus drafts and violent movements of the air into the elevator-shaft are avoided and the rooms or spaces contiguous to the shaft become available for storage purposes. This is the object of my invention.

In Fig. 4 I have shown another form in which the flexible bridging-pieces are placed

on the edges or frame of the openings B instead of on the cab. The result, however, is the same.

It will be seen that my invention not only prevents the cold air from rushing out, which has always been a source of substantial loss, but it also prevents an inrush of warm and moisture-laden air. This warm air is not only harmful in itself, but deposits snow, which is very undesirable. In other words, the cab or car becomes a traveling part of the anteroom.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent—

1. A refrigerator-building comprising two or more floors, an elevator-shaft having openings at each floor, a closed elevator-car open at the front only, and flexible bridging-pieces for surrounding the contiguous openings of the car and elevator-shaft to provide a vestibule for closing the space between the car and the shaft-openings.

2. A refrigerator-building comprising two or more floors, each floor having a storeroom, an anteroom, and an elevator-shaft having an opening into the anteroom, a closed elevator-car open at the front only, and flexible bridging-pieces for surrounding the contiguous openings of the car and elevator-shaft

to provide a vestibule for closing the space between the car and the shaft-openings into the anteroom.

3. A refrigerator-building comprising two or more floors, each floor having a storeroom, an anteroom and an elevator-shaft extending through the anteroom and having an opening into the anteroom, a closed elevator-car open at the front only, and flexible bridging-pieces for surrounding the contiguous openings of the car and elevator-shaft to provide a vestibule for closing the space between the car and the shaft-openings into the anterooms.

4. A refrigerator-building comprising two or more floors, each floor having a storeroom, an anteroom and an elevator-shaft having an opening into the anteroom, a closed elevator-car open at the front only, and flexible bridging-pieces secured to the bottom, top, and sides of the car and for surrounding the contiguous openings of the car and elevator-shaft to provide a vestibule for closing the space between the car and the shaft-openings into the anterooms.

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Witnesses:

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