

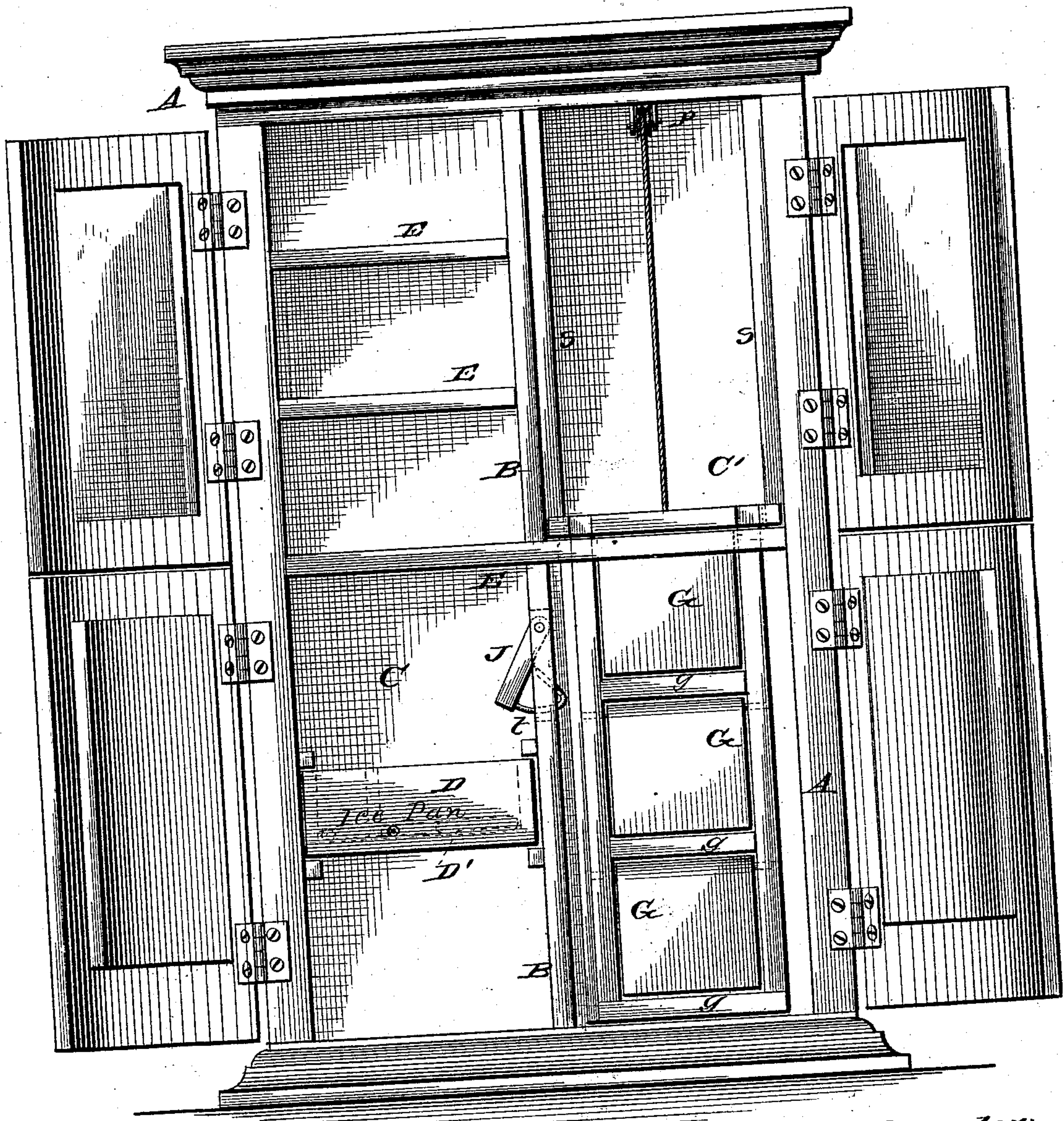
(No Model.)

G. KOONS.
REFRIGERATOR.

Patented Oct. 30, 1883.

No. 287,691.

Fig. 1.



Witnesses:

Phil C. Dietrich
W R Keyworth

Inventor:

Geno Koons

by

W. Alexander
Attorney.

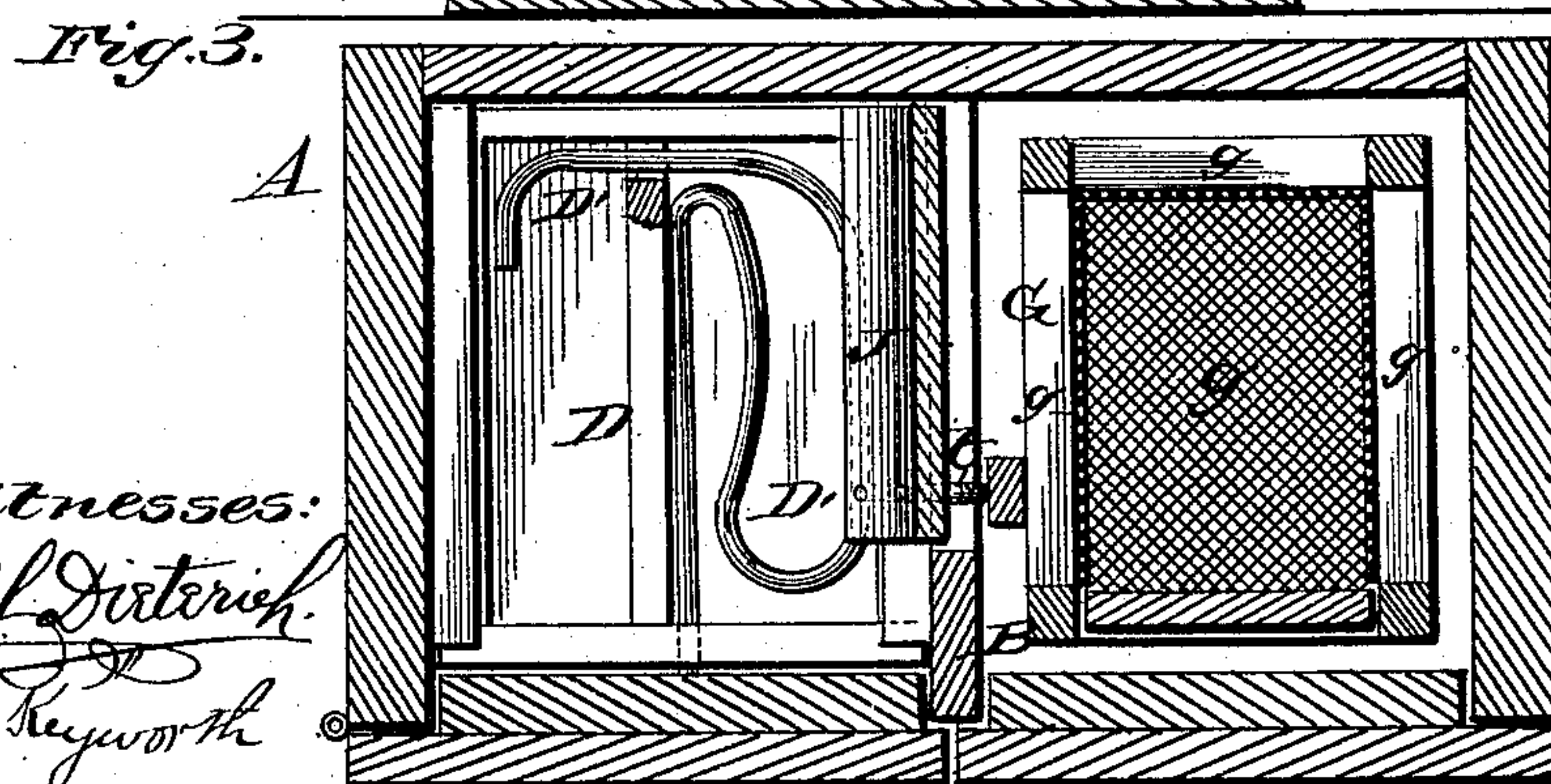
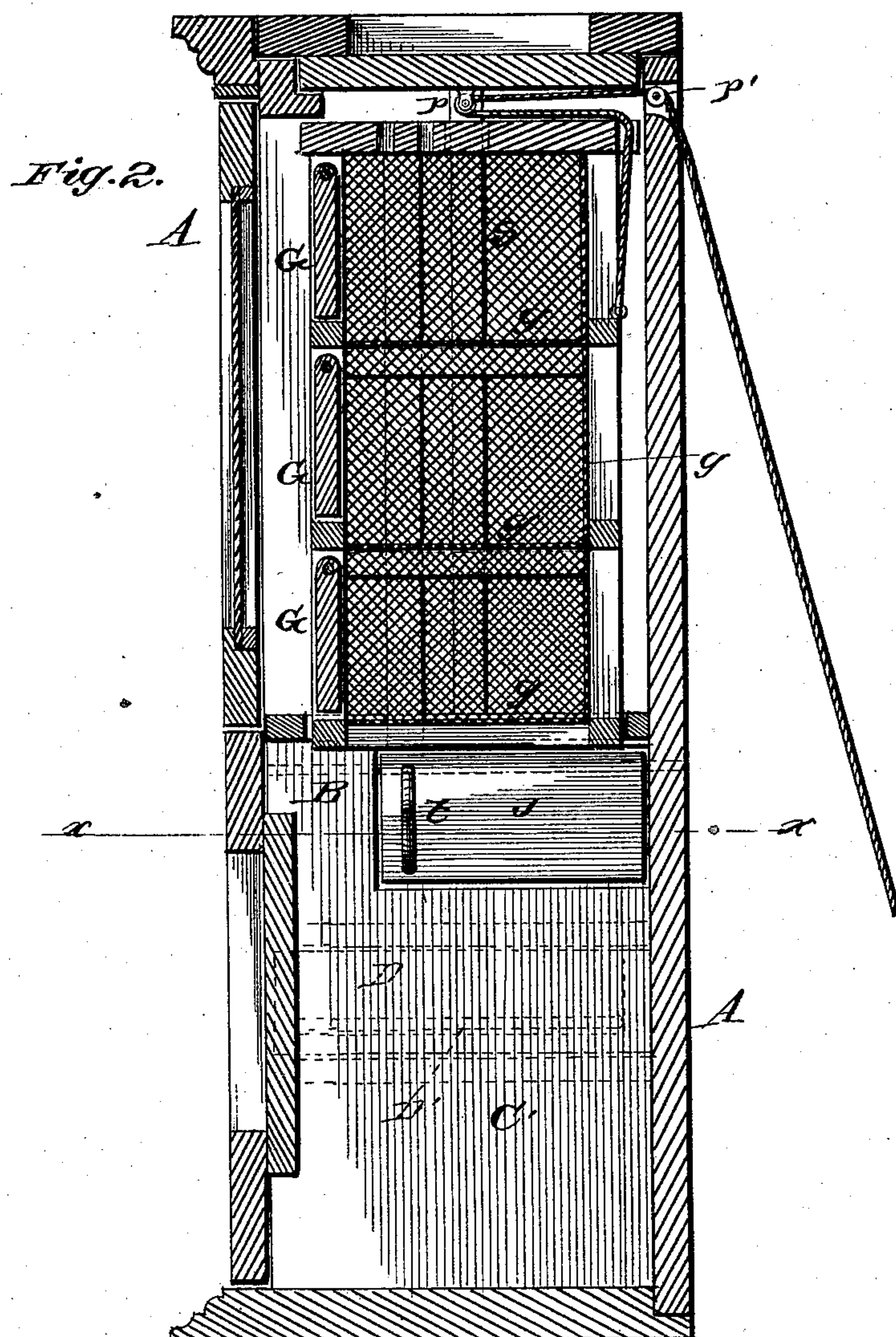
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2 Sheets—Sheet 2.

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WR Keyworth

Inventor.

Geo. Kerns.

By:

W. Alexander
Attorney.

UNITED STATES PATENT OFFICE.

GEROW KOONS, OF ST. LOUIS, MISSOURI.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 287,691, dated October 30, 1883.

Application filed May 25, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEROW KOONS, of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Refrigerators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a front view of my improved refrigerator. Fig. 2 is a vertical section taken longitudinally through the refrigerator, showing the internal structure thereof, also showing the automatic hinged gravitating door which separates the elevator-compartment from the refrigerator-compartment. Fig. 3 is a horizontal section through the refrigerator, taken in the plane $x x$ on Fig. 2.

This invention relates to refrigerators where-in it is desired to keep food cool and to provide for families living in what is known as "flats."

My object is to combine an elevator with a refrigerator in such manner that the refrigerating-chamber may be arranged in the cellar or lowest story of a building and the casing or shelves be made vertically movable.

The invention consists in a novel combination of a trap-door with a refrigerating-chamber and a compartment in which are arranged one or more cases adapted to contain material to be refrigerated; also, in the combination of lock-boxes and reticulated sides therefor, which are vertically movable, with a refrigerator, all of which will be fully understood from the following description when taken in connection with the annexed drawings.

A designates a vertical shaft or hollow frame, which is subdivided by a vertical partition, B, forming two compartments, CC' , which may extend from the cellar or any section of a building through the several stories or flats to the highest story. The shaft or frame A is provided with a refrigerating-compartment, C, on one side of the partition B, and located at or near the bottom thereof is an ice-drawer, D, applied between guides, in which drawer may be arranged a pipe-coil, D' , through which water may flow for the purpose of cooling it. Above the ice-holding drawer I arrange, in

the compartment C, a number of shelves, E, that are fixed.

The front of the refrigerating-chest is provided with doors, which may or may not be glazed, and which will, in practice, be provided with packing, so that when they are shut they will be hermetically sealed.

In the compartment C' , I arrange an elevator consisting of one or a number of cases, G, which are provided with doors having locks applied to them. This elevator is suspended by a rope or chain, which is passed over a pulley, p , and over a pulley, p' . This rope or chain is connected to a windlass or to any other device by means of which the cases G can be raised or lowered.

The cases are guided by strips fixed to the side walls of the compartment C' , or in any other suitable way.

It is obvious that by my invention a single refrigerating-chamber will cool any number of cases or chests, each one of which is a portable refrigerator in itself and adapted to be used for any flat in a building. The reticulated or gauze-wire sides and bottoms or shelves, g , keep out insects and also allow a free circulation of cold air. One refrigerating-chamber located in the cellar of a building will thus serve for a number of persons living in the different stories of the building.

For the purpose of preventing undue melting of the ice, I employ a gravitating door, J, which is hinged at the end of an aperture through the partition-wall of the shaft A, and provided with a cam or trip, t . When the elevator is down, it opens the said door, and when it is raised above this door the latter will shut. I thus prevent in a great measure warm air from entering the ice-compartment when the elevator is raised above it.

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

1. The combination of a stationary refrigerator located in the basement of a building, a hollow shaft extending up through and communicating with the several stories or flats of the building, a "dumb-waiter" composed of a series of chests having reticulated sides, doors G, and elevating mechanism for said waiter, all constructed and adapted to operate sub-

stantially in the manner and for the purposes described.

2. The combination of a refrigerator and a hollow shaft separated by a vertical partition having an opening throughout it, the gravitating door applied to said opening, the trips applied to said door, one or more vertically-movable chests having reticulated sides, and provided with an elevating apparatus, all constructed and adapted to operate substantially in the manner and for the purposes described.

3. The combination of a refrigerator arranged on one side and at the base of a hollow shaft extending up through and communicat-

ing with the several stories or flats of the building, a dumb-waiter composed of a series of chests having reticulated sides and bottoms, and elevating mechanism for said waiter, all constructed and adapted to operate substantially in the manner and for the purposes described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

GEROW KOONS.

Witnesses:

LAWRENCE W. LOW,
ELLS L. MARTLING.