

1,021,722.

4 SHEETS--SHEET 1.

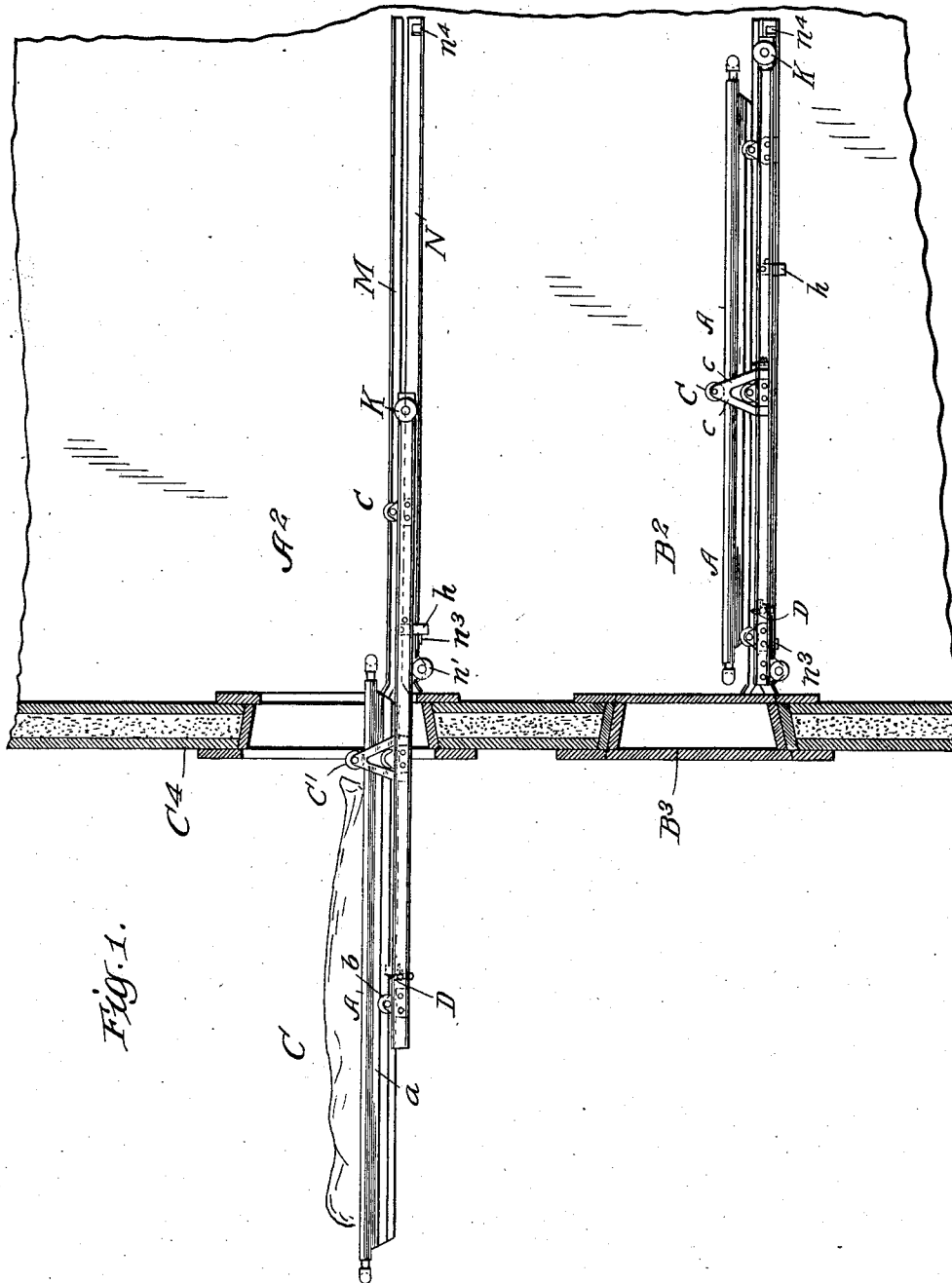


Fig. 1.

St. Crocheon
E. Mearling.

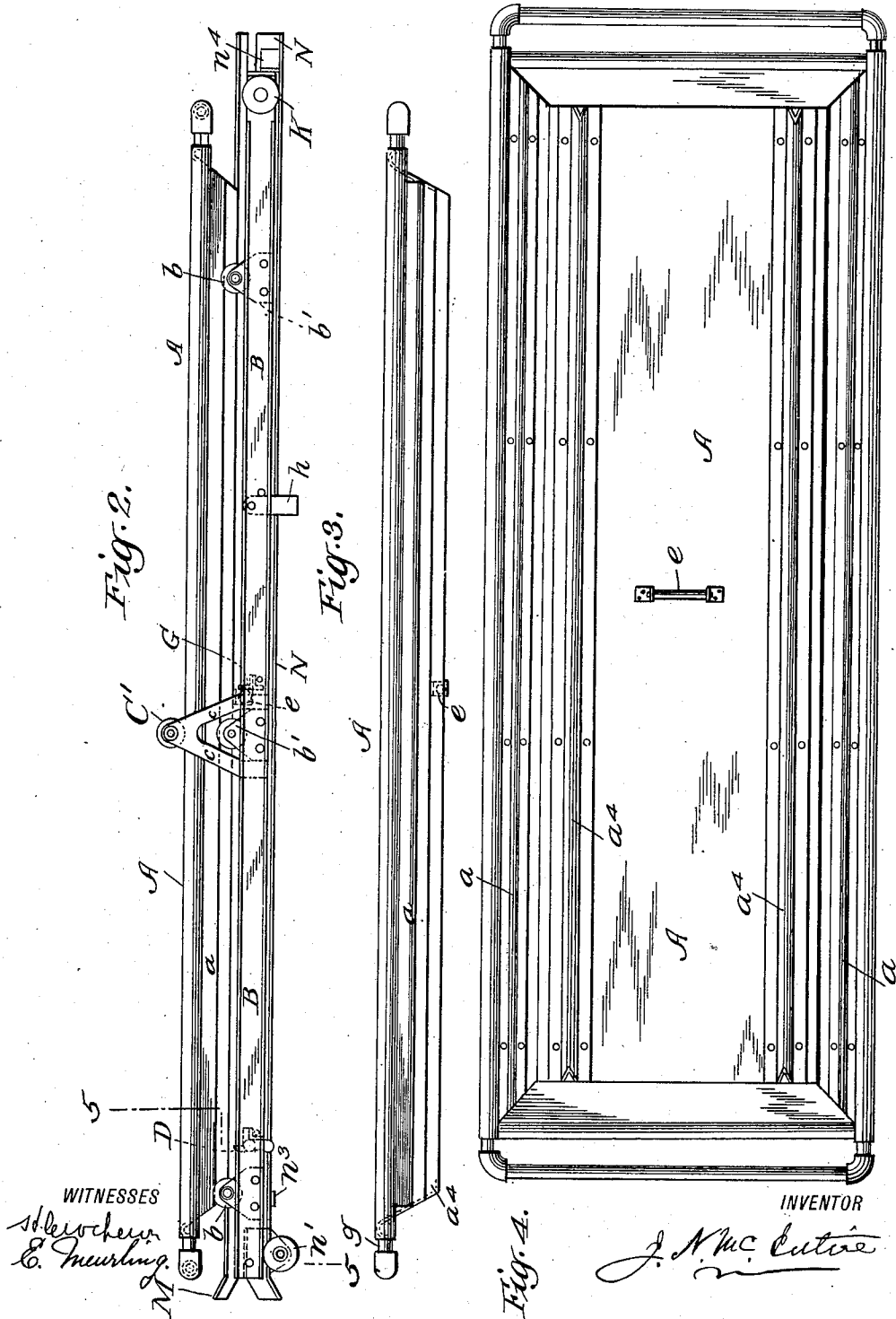
J. N. McC. Lathrop

1,021,722.

J. N. McINTIRE.
MORTUARY REFRIGERATOR.
APPLICATION FILED FEB. 25, 1911.

Patented Mar. 26, 1912.

4 SHEETS-SHEET 2.

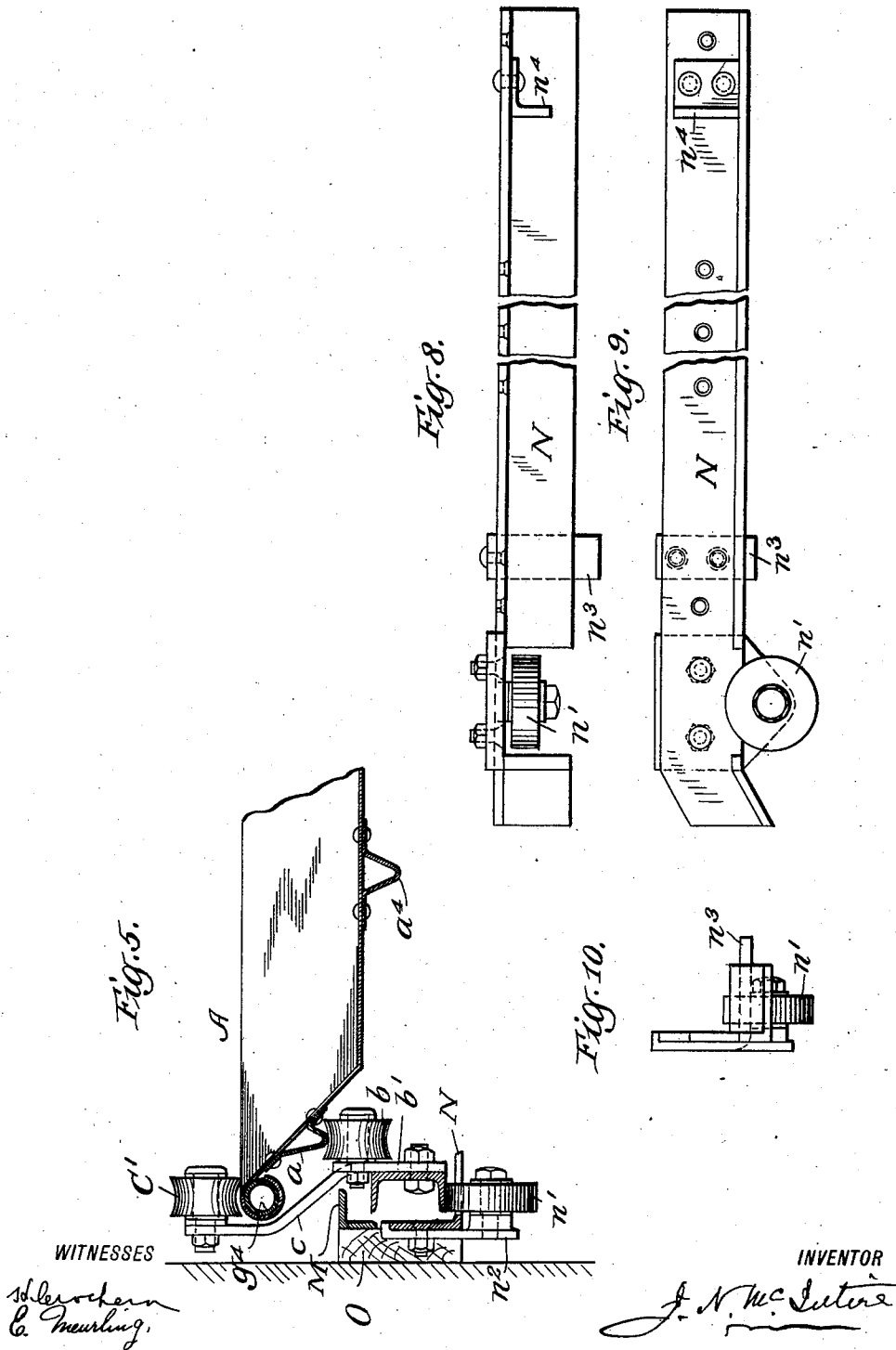


1,021,722.

J. N. MCINTIRE.
MORTUARY REFRIGERATOR.
APPLICATION FILED FEB. 25, 1911.

Patented Mar. 26, 1912.

4 SHEETS-SHEET 3.

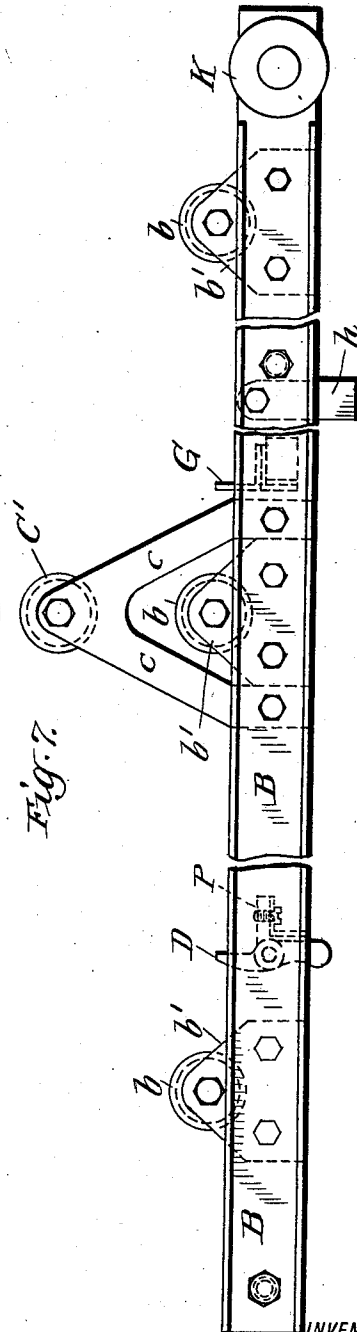
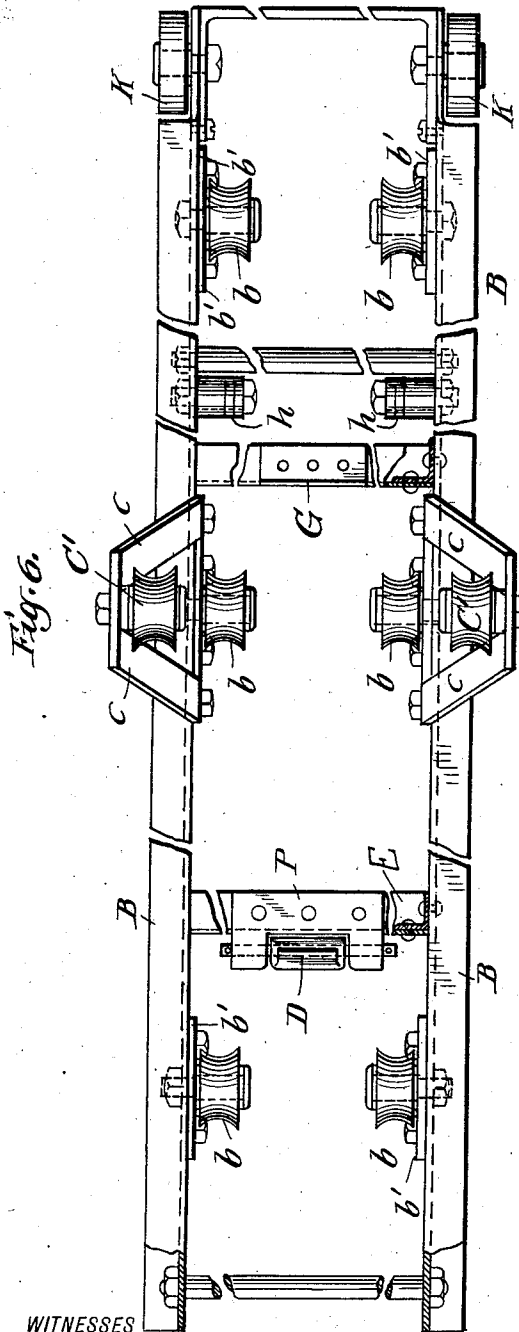


J. N. McINTIRE.
MORTUARY REFRIGERATOR.
APPLICATION FILED FEB. 25, 1911.

1,021,722.

Patented Mar. 26, 1912.

4 SHEETS-SHEET 4.



WITNESSES

H. Crocker
E. Mearns

INVENTOR

J. N. McIntire

UNITED STATES PATENT OFFICE.

JACOB N. McINTIRE, OF NEW YORK, N. Y., ASSIGNOR TO THE BRUNSWICK-BALKE-COLLENDER COMPANY OF NEW YORK, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

MORTUARY REFRIGERATOR.

1,021,722.

Specification of Letters Patent.

Patented Mar. 26, 1912.

Application filed February 25, 1911. Serial No. 610,959.

To all whom it may concern:

Be it known that I, JACOB N. McINTIRE, a citizen of the United States, residing in the city of New York, in the county of New York and State of New York, whose post-office address is No. 1409 Prospect avenue, Bronx borough, New York city, New York, have invented a new and useful Improvement in Mortuary Refrigerators, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

My invention relates to refrigerating devices; and more especially to what are designated "Mortuary refrigerators;" that are used mostly in morgues and at hospitals for holding cadavers.

As heretofore constructed, to the best of my knowledge, such refrigerators have involved some unnecessary expense in their structural features, and some inconvenience in the working of the parts necessary to the installation within and removal from the refrigerating chamber of the body-carrying tray; especially when the latter may be laden with a heavy body. And, as well known mortuary refrigerators are usually made to comprise several refrigerating chambers, in one structure, arranged in tiers one above another, and in rows side by side.

My invention consists in the novel construction of the metallic, relatively movable and bodily removable parts of the refrigerator; and in the combined arrangement of such parts with the usual refrigerating chambers, that will be hereinafter fully described; and that will be most particularly pointed out in the claims of this specification.

To enable those skilled in the art to which my invention appertains, to make and use refrigerators embodying, either partially or wholly, the same, I will now proceed to fully describe the construction and operation of my improved refrigerator, referring by letters to the accompanying drawings which form part of this specification; and in which I have shown the several features of my invention carried out in those precise forms in which I have, so far, practiced the latter; though, of course, as to some of the structural features more modifications of what I have shown may be adopted in lieu of the latter without departing from the spirit of my invention.

In the drawings, Figure 1 is a partial vertical section of a mortuary refrigerator, made according to my invention, and showing two of the chambers (located one above the other, with the movable metallic parts closed up—and empty—within one of the refrigerating chambers; and with the other set of movable parts of the other chamber supporting a cadaver, and drawn out through the open door of the chamber, so that the body carried by the metallic tray is accessible, for removal or other purposes. Fig. 2 is an elevation, or interior side view of a set of the movable and removable metallic parts of the refrigerator in the same relative positions in which they are seen at the lower chamber of Fig. 1; but detached from the chamber, or casing, and drawn on a larger scale, to better show their detail construction and how they work—as I will presently explain. Fig. 3 is an elevation on a similar scale, of one of the parts seen at Fig. 2 detached. Fig. 4 is a bottom view of the detached part shown at Fig. 3. Fig. 5 is a partial vertical section, at the line 5—5 of Fig. 2, of the parts there shown; but drawn on a larger scale. Fig. 6 is a top view of the sliding (and removable) frame, on which the sliding and removable tray is mounted, detached; and drawn on an enlarged scale; and Fig. 7 is a side view of the parts seen in top view at Fig. 6. Fig. 8 is a top view of one of the side pieces of the stationary frame. Fig. 9 is a side view of the same. Fig. 10 is an end view of the same.

In the several figures the same part, wherever seen, will be found always designated by the same letter of reference.

A² and B² are, respectively, the upper and lower ones of the two chambers, shown, of a mortuary refrigerator, of the usual approved construction; the lower one of which chambers is shown as having its door, B², closed and the empty, article-carrying, metallic devices, of course, located within the closed chamber; while the upper chamber A², is shown with its door opened and the sliding frame and tray (the latter carrying a cadaver C) pulled out through the door opening. The casing C⁴, is supposed, of course, to be provided with suitable refrigerating means in its lower part, as usual.

A is a tray, made of sufficiently thick and strong metal (preferably galvanized iron)

to sustain any body; as for instance, the cadaver C, seen at Fig. 1, to be kept in the refrigerator and to be handled as occasion may require. This tray, which, as seen, is made dishing in shape, is formed or provided with two sets of longitudinal V-shaped and downward projecting ways, a and a^4 (see Figs. 2, 4 and 5), one set of which, a , are located, one at each side on the flared longer, sides of the tray, and the other pair of which are on the, flat, bottom portion of the tray. And while those two ways, or track-rails a , coact with a set of peripherally grooved supporting wheels or rollers b , that are carried by the metallic frame B; the other two, lettered a^4 , operate only as strengthening ribs or corrugations in the bottom of the tray to render the latter rigid.

The upper edge of the tray at each side encircles a tubular rod g^4 (see Fig. 5), and these rod-encircling, longitudinal, edges of the tray travel, when the tray is slidably moved, immediately beneath a set of peripherally grooved wheels C^1 (one at each side of the tray) each of which is pivotally mounted in the upper end of a stand, the downwardly extended bifurcated portions c of which are securely bolted to one of the side beams or pieces B, (see Fig. 2) of the slidable frame that is supported, near its outer, or front, end by an antifriction wheel n^1 , and near its rear or inner end through the medium of a wheel, or roller K that rests and travels on the horizontal flange of an angle-iron beam N, as clearly shown.

Each of the supporting rollers n^1 , is pivotally mounted (see Fig. 5) on the depending arm of a bracket n^2 that is bolted as shown (see Figs. 3 and 5) to the angle-iron beam N, which stationary beam is made fast to a hard wood filler strip O (see Fig. 5), that, in turn, is securely bolted to one of the side walls of one of the chambers.

The peripherally grooved rollers, or wheels b (three at each side of the chamber) on which are supported and travel the depending track-rails a of the slidable tray, are pivotally mounted, as seen, on brackets b^1 , that are bolted fast to the side pieces, or beams B of the slidable frame; so that the said frame, through these media, wholly supports the slidable tray. And when the tray is pulled out (as seen at the upper chamber in Fig. 1), to get access to its contained body, or article, said tray is prevented from tipping downward, at its outer end, by the overhung detaining set of wheels C^1 of the frame. But by drawing the tray still farther out and releasing its rear end portion from the hold-down rollers C^1 , said tray may be wholly separated from the supporting frame, and wholly removed from the refrigerator. And when it may be desired to, thereafter, wholly remove the frame also from the chamber, this may be

done by pulling the frame out until the set of anti-friction wheels K, at its rear end (see Fig. 2) shall have been drawn out from under, or clear of the erst-while hold-down upper horizontal flange M of the metallic beam shown (one at each side) as mounted fast on the side wall of the chamber.

To the angle iron cross bar or brace E, of the slidable frame, is secured (at about its middle lengthwise) a bracket P in which is mounted, on a horizontal pintle (see Figs. 6 and 7) a gravity catch D, which is tilted and ridden over by the depending stop piece e of the tray, as the latter is slid inwardly on the frame from the position, relatively to the latter, seen at the upper chamber at Fig. 1, to that seen at the lower chamber of the said figure; which catch, thereafter, gravitates into the position seen at Fig. 2.

The gravity catch D is adapted to be engaged by the stop e on the tray, so that a further outward movement of said tray will cause the sliding frame B, to move outward. This outward movement of the frame B is limited by a stop n^3 (see Fig. 1) secured to the angle iron N, engaging the depending latches h , pivotally mounted in the frame B.

The latches h are pivoted so that they may be lifted, by hand, to facilitate the removal of the frame B; for cleaning, etc. n^4 are stops secured, as seen, (at Figs. 2, 8, and 9) to the inner end portions of the metallic beams N; to limit the inward movement of the slidable frame B.

When the tray is moved inward from the position shown at the upper portion of Fig. 1, the stop e will strike the angle iron G, mounted fast on the sliding frame B (see Fig. 6) and cause said frame B, to also move inwardly. And it will be observed that while the frame and the tray are capable of all the necessary sliding movements both in unison and independently of each other, it is only this one set of angle-iron side beams, carried by the side walls of the chamber, that perform the function of supports to sustain the gravity of all the slidable parts of the apparatus or structure; since these supports alone serve to support the frame, directly, and to also support the tray, indirectly through the medium of the frame on which, as explained, the tray is directly supported slidably. And this novel combined arrangement of the slidable devices with each other and with the side walls of the chamber, I deem an essential and advantageous structural feature; since it lends not only simplicity and perfection of action to all the parts to be manipulated; but also renders the concrete structure cheaper and more desirable than any other (to my knowledge), possessing the necessary and usual mode of operation of the type of mortuary refrigerator to which my invention relates.

Having now so fully explained, in connection with the drawings, my improved construction of mortuary refrigerator, what I claim as new and desire to secure by Letters Patent, is:—

1. In a mortuary refrigerator, the combination, with a slidable and removable frame; and a slidable and removable tray, supported solely by said frame, of a bar *e*, on the bottom of the tray and a stop *G* on the frame adapted to engage said bar; all as and for the purposes set forth.

2. In a mortuary refrigerator, the combination, with a chamber; a slidable frame *B* mounted therein; and a tray supported solely by said frame and slidable thereon, of a gravity latch *D*, mounted on frame *B*; and an engaging bar *e*, on the bottom of the

tray; the whole arranged and operating together, in the manner and for the purposes hereinbefore set forth.

3. In a mortuary refrigerator, the combination, with a slidable tray *A*, of track-rails *a*, located on the flaring sides of said tray and engaging with peripherally grooved supporting wheels, or rollers *b*, mounted on a frame *B*; the whole arranged and operating together as and for the purposes hereinbefore set forth.

In witness whereof, I have hereunto set my hand this 21st day of February, 1911.

J. N. McINTIRE.

In presence of—

CHRISTIAN NAGLE,
WM. H. WIGGINS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."