May 10, 1938. C. R. D'OLIVE 2,116,564

MOVABLE CARRIER FOR STORAGE CABINETS

Filed Nov. 11, 1935 2 Sheets-Sheet 1

Fig. 1.

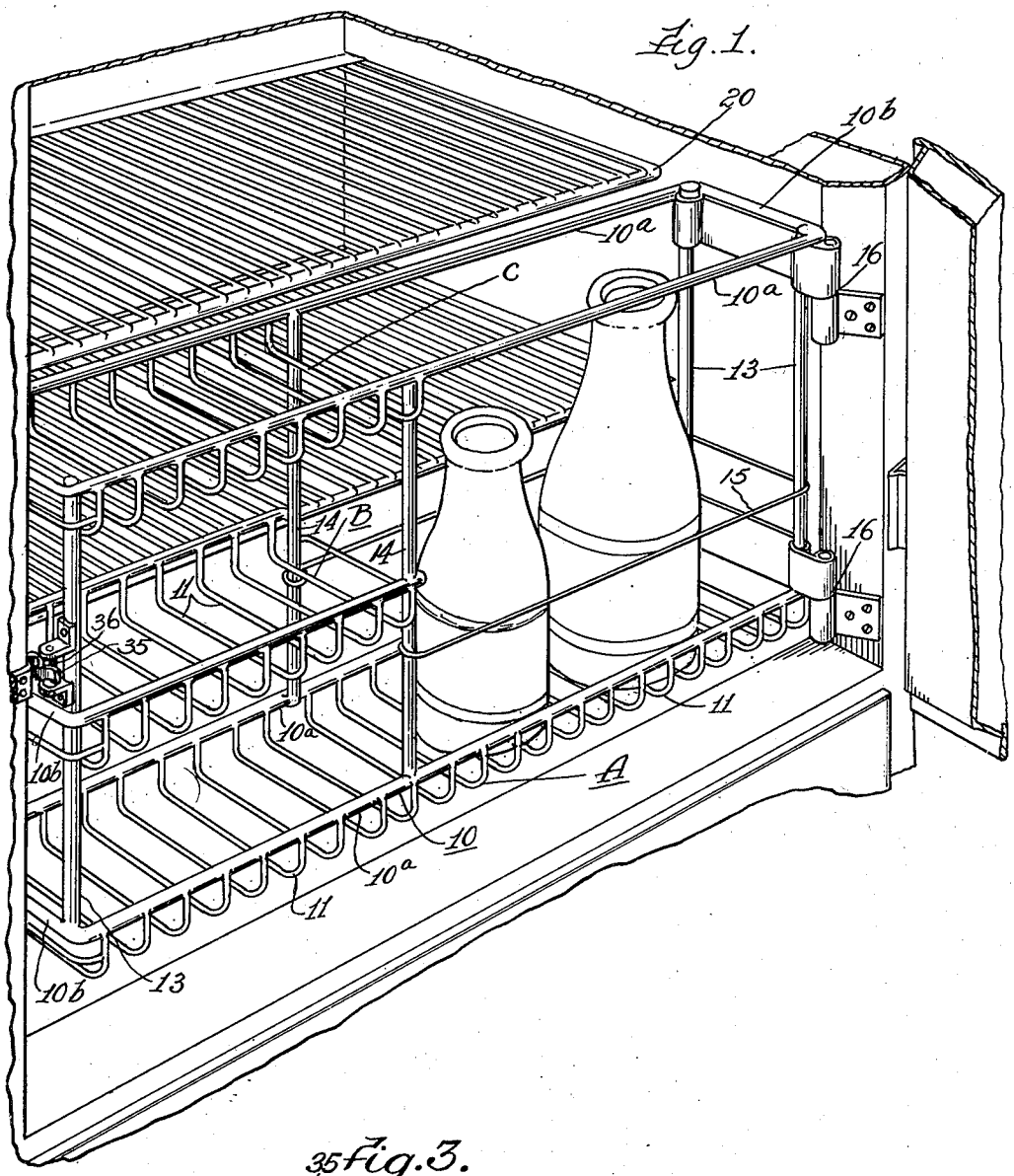
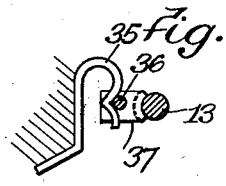


Fig. 3.



Witness,
H. C. McKnight.

Inventor.
Charles R. D'Olive.
by Burdett & Burdett
his Attorneys.

May 10, 1938. C. R. D'OLIVE 2,116,564

MOVABLE CARRIER FOR STORAGE CABINETS

Filed Nov. 11, 1935 2 Sheets-Sheet 2

Fig. 2.

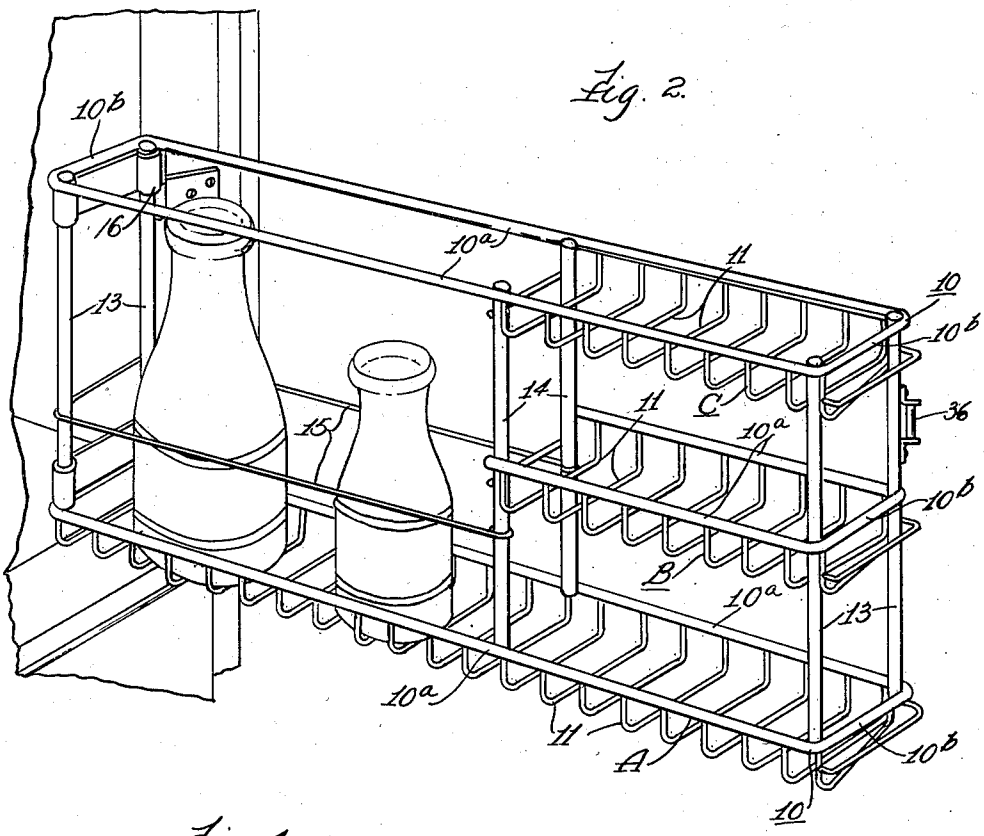
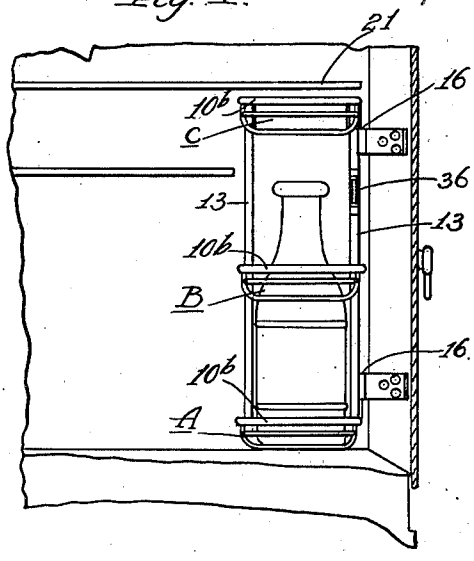


Fig. 4.



Inventor.
Charles D'Olive.
by Burton & Burton
his Attorneys.

Patented May 10, 1938 2,116,564

UNITED STATES PATENT OFFICE

2,116,564

MOVABLE CARRIER FOR STORAGE CABINETS

Charles R. D'Olive, Chicago, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia

Application November 11, 1935, Serial No. 49,139

4 Claims. (Cl. 312—184)

The purpose of this invention is to provide an improved construction of and for use in appurtenance to a refrigerator or other storage cabinet for accommodating therein a variety of articles of different sizes, particularly articles which should be stored only in up-standing position, such as cans or bottles containing liquid, as milk bottles and the like. The invention consists in the elements and features of construction shown and described as indicated in the claims.

In the drawings:

Figure 1 is a perspective view of an apparatus designed as an appurtenance to a refrigerator or other storage cabinet and embodying the basic features of this invention, the same being shown mounted in a storage cabinet to which it thus becomes an appurtenance.

Figure 2 is a perspective view of the same device showing it swung about its hinged mounting and out of the storage cabinet.

Figure 3 is a detail plan section for showing a catch to hold the device normally within the cabinet.

Figure 4 is a vertical sectional view taken within the storage cabinet and showing the hinged rack device in modified relation to the fixed shelves.

Referring to the drawings in detail:

The device which embodies the invention is shown as a wire rack or skeleton structure comprising a plurality of wire baskets assembled and rigidly joined as a vertical series of shelves. As shown, it consists of three of these basket-like shelves, A, B and C, of which the lowest shelf A, is about twice the length of each of the upper shelves, B and C. The construction of the three shelves, in other respects except the difference in length, is the same, and description of the basket-like construction of the shelf, A, will suffice for all three shelves.

The basket structure consists of an integral frame rod or bar, 10, forming longitudinal front and rear side and end guards, the latter designated at 10b, and a multiplicity of relatively slender U-shaped cross rods, 11, joined at the upper ends of the U-form integrally with the longitudinal parts, 10a, of the frame bar, 10, the cross rods, 11, being narrowly spaced apart so that they form a safe lodgment for the article to be accommodated for storage in the device.

The three basket shelves are rigidly connected in a unitary frame structure by upright posts, 13, at the four corners of the assemblage and also by posts, 14, at the inner end of the shorter baskets, the upper one of the short baskets having its longitudinal front and rear side bars, 10a, extended to the same length as the side bars, 10a, of the full-length basket shelf, A, and integrally connected by the end guards, 10b. A guard rail, 15, may be provided at a distance above the bottom shelf or basket, A, extending from posts, 14, around three sides of the space beyond the shorter shelf, B.

Upon considering the construction as thus far described, it will be seen that the provision of a short basket shelf, B, above the lower full-length basket shelf, A, adapts the structure to accommodate on one part of the lower full-length basket shelf in up-standing position articles of twice the height which could be thus accommodated on the other part of the lower basket shelf, A, above which is the half-length basket, B, and which could not be accommodated at all if the basket shelves were all full length and vertically spaced at intervals normal for accommodating articles not required to be stored up-standing. And the provision of a second short shelf, C, above the first leaves the space clear over a part of the long shelf, A, thus permitting placement and removal of the taller articles from above.

The carrier described above is designed to be mounted in the storage cabinet by hinges, 16, attached to a vertically extending part of the cabinet,—as shown, this is an end wall of the storage compartment,—so that the carrier may swing horizontally from a position in front of the shelf-compartment of the cabinet through at least ninety degrees to a position affording access to the compartment shelves and also to the carrier shelves.

As shown in Figure 1, the carrier is dimensioned as to height and is mounted hingedly on the cabinet wall so that at in-swung position its top bar, 10a, faces the front edge of the top shelf, 20,—or the highest shelf shown,—of the cabinet. But in some forms of these cabinets the upper shelf or shelves extend forward to the face of the door at closed position so that unshelved storage space in front of the shelving, between the shelves and the door at closed position, is left only at the lower part of the cabinet. In such instances the carrier may be dimensioned as to height for swinging under an upper shelf, 21, of the cabinet, as seen in Figure 4.

Suitable provision is made for latching the carrier at in-swung position as by the spring catch, 35, formed for engaging the corner post, 13, of the carrier as seen in Figures 1 and 3, said corner post being provided with means for such engagement consisting of a pin or stud, 36, on

the corner post offset therefrom by brackets, 37, between which said stud, 36, extends.

The drawings are to be understood as showing the carrier hingedly mounted on a fixed part of the cabinet structure, and thus for swinging independently of the cabinet door. The advantage of this construction as compared with any construction in which a carrier for like purpose might be mounted on the cabinet door is that when mounted so as to swing with the door in the opening and closing movement of the door, the contents of the carrier shelves are liable to be displaced in any rapid or sudden opening or closing movement of the door.

I claim:

1. In combination with a cabinet having a shelved storage compartment with a door giving access thereto which, at closed position, is spaced forwardly of the forward edge of one shelf, an upper shelf extending close to the inner face of said door, and a carrier movably mounted on the cabinet structure, dimensioned to occupy the space in front of the first-mentioned shelf and immediately below the other shelf when the door is closed, but movable out of said space when the door is opened, said carrier comprising an upwardly open space which is rendered accessible only when the carrier is moved from its position under the upper shelf of the compartment.

2. In combination with a cabinet having an air-conditioned storage compartment with a door giving access to the storage space thereof, a carrier hingedly connected at one end on a fixed part of the cabinet structure for swinging horizontally toward and from the compartment and toward and from the door opening, said carrier being formed at both sides for free and unrestricted air circulation through the storage space of the carrier, and having in said storage space shelving for articles to be stored for exposure to the air conditioned by the storage compartment of the cabinet, said shelving being formed for free circulation of air through the successive shelf spaces, and said shelf spaces being accessible from both sides of the carrier for introduction and removal of articles to be stored therein.

3. In combination with a cabinet having a storage compartment with a door controlling access to the storage space thereof, said compartment having lower and upper shelves including an upper shelf extending farther toward the door opening than the other shelf or shelves below it, a carrier hingedly mounted at one end on a fixed part of the cabinet structure for swinging horizontally, toward and from the compartment and toward and from the door opening, under the part of said upper shelf which projects toward the door opening beyond said lower shelf or shelves, said carrier being formed with its shelf spaces open at both sides for introduction and removal of articles to be stored therein.

4. In combination with a cabinet having a shelved storage compartment with a door giving access thereto, which, at closed position, is spaced forwardly of the forward edge of at least one shelf, an upper shelf extending nearer the inner face of said door, and a carrier movably mounted on the cabinet structure, dimensioned to occupy the space in front of the first-mentioned shelf and below the other shelf when the door is closed, but movable out of said space when the door is opened, said carrier comprising a unitary shelved structure having at least one shelf which is shorter than the shelf below it, whereby a part of the lower shelf is adapted to carry articles extending above the level of the shorter shelf, the space in the carrier for such taller articles being upwardly open, and being rendered accessible when the carrier is moved out from its position under the upper shelf of the compartment.

CHARLES R. D'OLIVE.