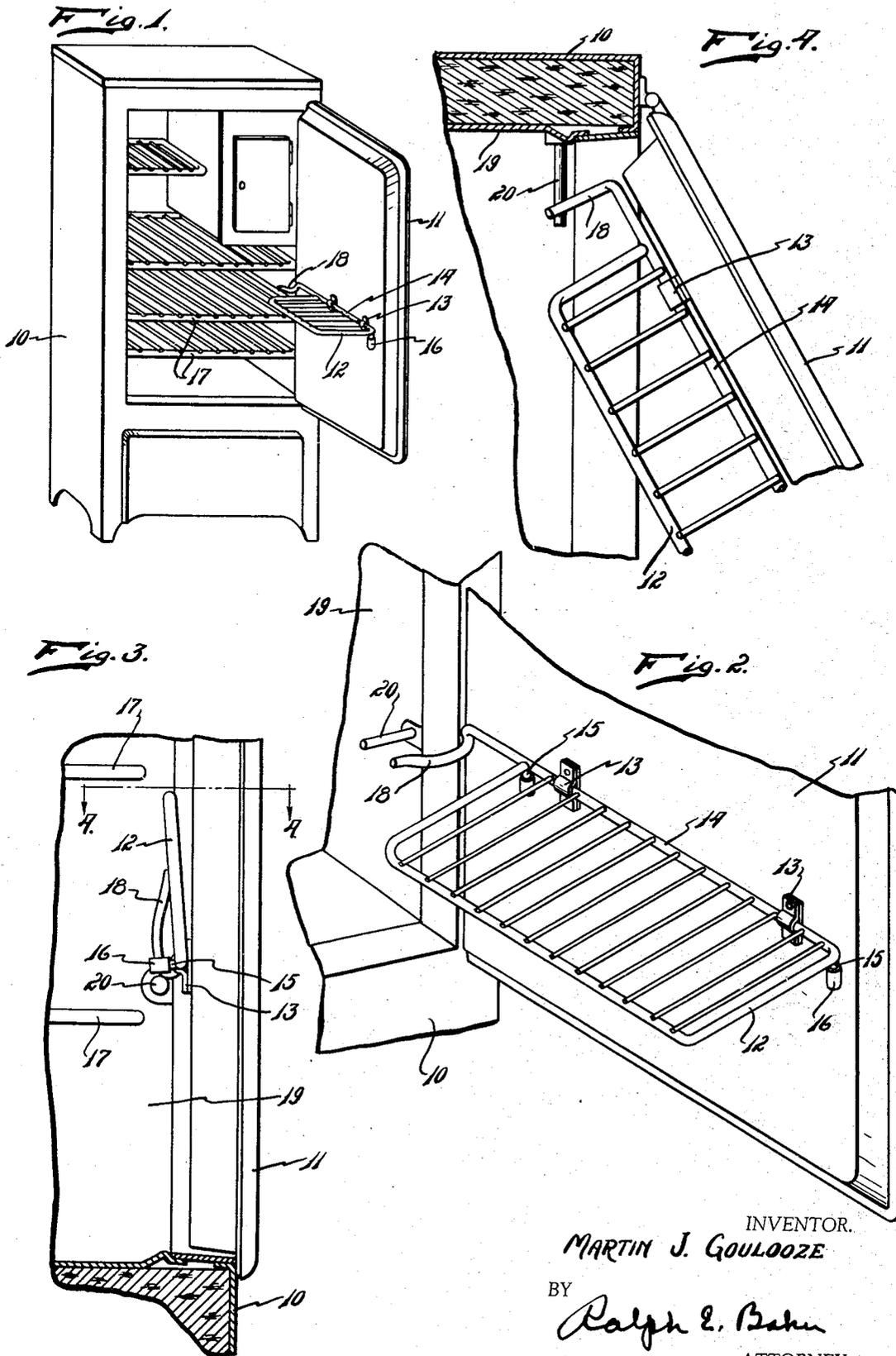


Dec. 1, 1936.

M. J. GOULOOZE  
REFRIGERATING APPARATUS  
Filed March 30, 1934

2,062,360



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# UNITED STATES PATENT OFFICE

2,062,360

## REFRIGERATING APPARATUS

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Application March 30, 1934, Serial No. 718,190

8 Claims. (Cl. 312-173)

This invention relates to refrigerators and more particularly to auxiliary shelves or trays therefor and is related to my generic copending application Serial Number 718,187 for Refrigerating apparatus, filed on even date herewith.

It is frequently necessary, when placing articles into or removing them from a refrigerator, to rearrange the articles that are in the refrigerator and in doing so to temporarily remove the same. Obviously it then becomes necessary to place the temporarily removed articles at some other location such as for example a table, which may be inconveniently located at some distance from the refrigerator. This oftentimes is a great inconvenience as it consumes time and causes the housewife or other person to take many unnecessary steps.

The primary object of the present invention is to provide a refrigerator with an auxiliary or rearranging shelf, which is conveniently located, such as on the refrigerator door, in such a manner that it may be easily disposed in a readily accessible article-receiving and supporting position, and which when not in use may be disposed in such position as not to occupy useful space within the refrigerator.

Another object is to provide a refrigerator door having such an auxiliary shelf which when the door is closed, will automatically move from a horizontal article-supporting position to a position which will not occupy any useful space within the refrigerator.

With the above and other objects in view, the present invention consists in certain features of construction and combination of parts to be hereafter described with reference to the accompanying drawing, and then claimed.

In the drawing which illustrates a suitable embodiment of the invention;

Fig. 1 is a perspective view of a refrigerator cabinet, the door being open and having an auxiliary or rearranging shelf mounted thereon, the shelf being shown in its operative article-supporting position;

Fig. 2 is an enlarged fragmentary perspective view showing the shelf in its horizontal position and showing the means which functions when the door is closed to move the shelf from its horizontal position;

Fig. 3 is a fragmentary vertical section through the refrigerator, the door being shown in closed position and the shelf being shown in its inoperative position; and

Fig. 4 is a transverse section taken approximately on the line 4-4 of Fig. 3, with the excep-

tion, however, that the door is shown in a partially closed position.

Referring to the accompanying drawing, in which like numerals refer to like parts throughout the several views, I have shown in Fig. 1 a refrigerator cabinet 10 having a hinged door 11.

The auxiliary or rearranging shelf 12 of the present invention is here shown as being in the form of a grille-like structure. It is to be understood, however, that the same may be constructed in any suitable manner and of any suitable material. The shelf 12 is hinged to the inner face of the refrigerator door by means of hinge clips 13 which extend around the rear bar 14 of the shelf and which are suitably secured to the inner face of the door.

In order to provide a suitable means for supporting the shelf in a horizontal position when the door is opened, the shelf is provided at its rear side with depending legs 15, such as indicated in Fig. 2, which engage with the inner face of the door and limit the downward swinging movement of the shelf 12. If desired, the legs 15 may be provided with suitable non-metallic collars 16 disposed to engage with the inner face of the door and thereby prevent metal to metal contact.

The rearranging shelf of the present invention is so arranged that when the door is being closed, the shelf will automatically swing upwardly from its horizontal position so as to clear the shelves 17 within the refrigerator, and also so as not to occupy any of the useful space within the refrigerator. In order to provide this movement of the shelf, the shelf is provided with a cam element 18 which may be secured to one of the depending legs 15 of the shelf, as indicated in Fig. 2, or which may be secured or otherwise carried by the shelf in any other suitable manner. It is preferred, however, that this cam element be provided on the shelf 12 adjacent the hinged side of the door.

Secured to the inner wall 19 of the refrigerator cabinet, and adjacent the hinged side thereof, is a suitable projecting element 20 which is disposed in the path of the cam element 18. This projecting member extends inwardly from the inner wall 19 of the cabinet a sufficient distance to engage with the cam element 18 before the door is completely closed, so that during the continued closing movement of the door, the engagement of the cam element 18 with the projecting member 20 will cause the shelf 12 to swing upwardly from its horizontal position to an inclined position such as indicated in Fig. 3. When the refrigerator door 11 is opened, the shelf 12 will auto-

matically swing downwardly during the opening movement of the door until the depending legs 15 thereof engage the inner face of the door and limit the downward movement of the shelf.

5 It will be noted from the drawing and foregoing description, that the device of the present invention provides a new and useful means for use with refrigerators, which is conveniently disposed for receiving articles while other articles are being placed in or removed from the refrigerator or are being arranged therein. It will be further noted that the shelf is readily accessible as soon as the refrigerator door is opened, and yet when the door is closed will automatically move to a position where it will not interfere with the refrigerator shelves and will not occupy any of the useful space in the refrigerator.

20 Aside from the specific embodiment of the invention herein shown and described, it will be understood that numerous details of the construction may be altered or omitted without departing from the spirit and scope of the invention, and that I do not desire to limit the invention to the exact construction herein set forth.

25 What I claim is:

1. In combination, a cabinet having a door opening closed by a door, an auxiliary shelf hinged to the inner face of said door for swinging movement from a horizontal to an inclined position, means for supporting said shelf in its horizontal position when the door is opened, said shelf having a cam surface, and means within said refrigerator disposed in the path of said cam surface to engage said cam surface during the closing movement of said door to move said shelf from its horizontal to its inclined position.

2. In combination, a cabinet having a door opening closed by a door, an auxiliary shelf, means hingedly connecting said shelf to the inner face of said door for swinging movement from a horizontal to an inclined position, means for supporting said shelf in a horizontal position when the door is open, a cam element carried by said shelf and a projecting member within said refrigerator disposed in the path of said cam element to engage said cam element during closing movement of said door and move said shelf from its horizontal to its inclined position.

3. In combination a cabinet having a door opening closed by a door, an auxiliary shelf, means hingedly connecting said shelf to the inner face of said door for swinging movement from a horizontal to an inclined position, means for supporting said shelf in a horizontal position when the door is open, a cam element carried by said shelf and a projecting member within said refrigerator disposed in the path of said cam element to engage said cam element during closing movement of said door and move said shelf from its horizontal to its inclined position, said supporting means comprising legs projecting below the bottom of said shelf for engagement with the said inner face of said door when said shelf is in its horizontal position.

4. In combination, a cabinet having a door opening closed by a door, an auxiliary shelf, means hingedly connecting said shelf to the inner face of said door for swinging movement from a horizontal to an inclined position, means for supporting said shelf in a horizontal position when the door is open, a cam element carried by said shelf and a projecting member within said refrigerator disposed in the path of said cam element to engage said cam element during closing movement of said door and move said shelf from its horizontal to its inclined position, said supporting means comprising legs projecting below the bottom of said shelf and non-metallic members carried by said legs for engagement with the said inner face of said door when said shelf is in its horizontal position.

5. In combination, a cabinet having a door opening closed by a door, an auxiliary shelf, means hingedly connecting said shelf to the inner face of said door for swinging movement from a horizontal to an inclined position, means for supporting said shelf in a horizontal position when the door is open, a cam element carried by said shelf and a projecting member within said refrigerator disposed in the path of said cam element to engage said cam element during closing movement of said door and move said shelf from its horizontal to its inclined position, said supporting means comprising legs projecting below the bottom of said shelf for engagement with the said inner face of said door when said shelf is in its horizontal position, said cam element being secured to one of said legs.

6. In combination a cabinet, a door hinged on said cabinet for rotation on a vertical axis, an auxiliary shelf hinged on the inner face of said door, and shelf engageable means for folding said auxiliary shelf flat against the door during the closing movement of the door, said means disengaging when the door opens to open the shelf to horizontal article receiving position.

7. In combination a cabinet, a door hinged on said cabinet for rotation on a vertical axis, an auxiliary shelf hinged on the inner face of said door, and cam means comprising cooperative members on said shelf and cabinet engageable for folding said shelf flat against the door during the closing movement of the door and disengageable for permitting said shelf to open to horizontal article receiving position when the door opens.

8. In combination a cabinet, horizontally disposed shelves in said cabinet, a doorway in said cabinet, a vertically hinged door for closing said doorway adjacent said shelves, an auxiliary shelf hinged on the inner face of said door, and means carried into engaging relation for folding said auxiliary shelf flat against said door in non-obstructing relation to said cabinet shelves during closing movement of the door said means disengaging for opening said auxiliary shelf to horizontal article receiving position when the door opens.

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