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W. G. BATE

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REFRIGERATED DISPLAY CABINET

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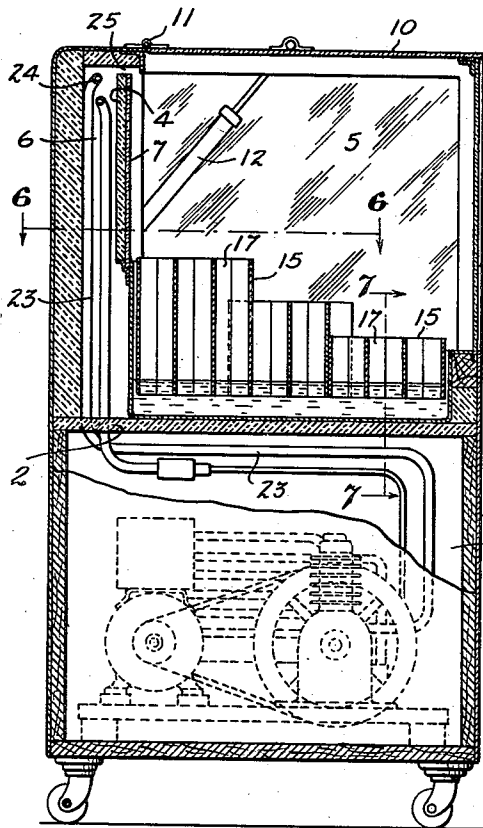


Fig. 2

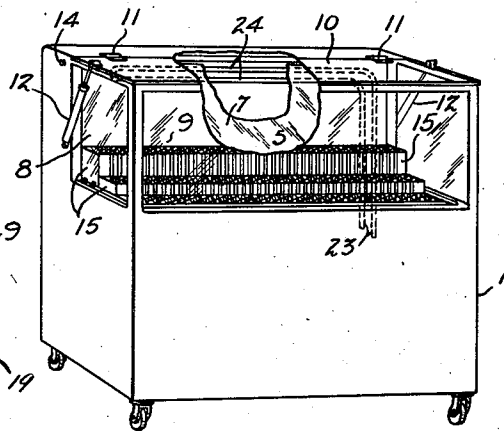


Fig. 1

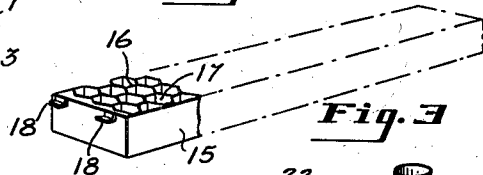


Fig. 3

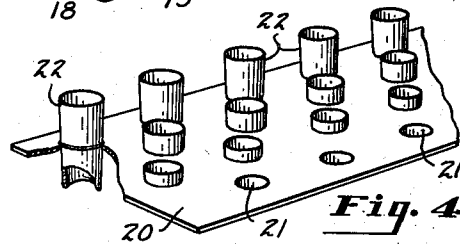


Fig. 4

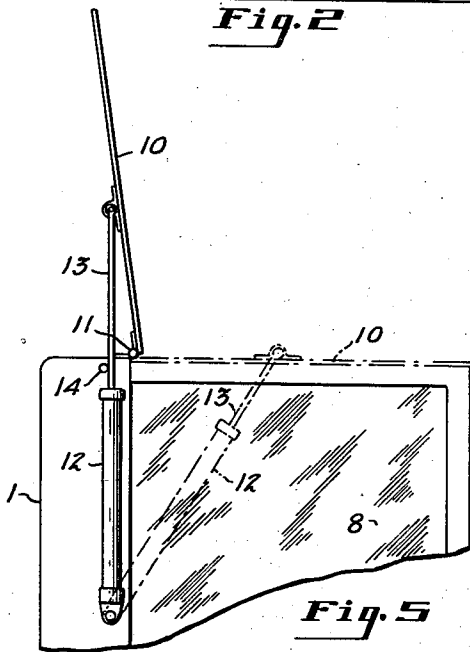


Fig. 5

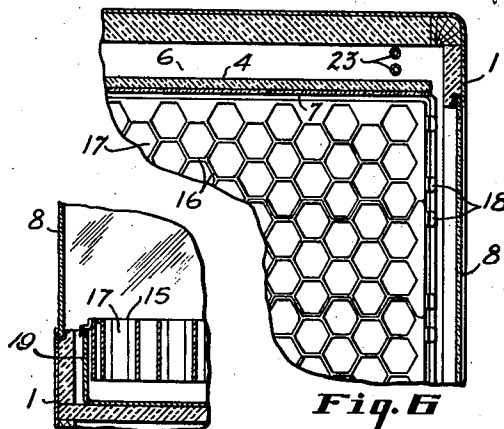


Fig. 6



Fig. 7

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REFRIGERATED DISPLAY CABINET

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8 Claims. (Cl. 62—89.5)

This invention relates to a refrigerated display cabinet for the exhibition of cut flowers, and has for its object to provide a convenient and relatively inexpensive show case or cabinet for use at cigar or news stands, and in stores of various kinds, which is adapted to preserve and attractively display cut flowers in places more frequented than a florist's shop, in order to reduce the inconvenience to the public in making small purchases of flowers, to increase the use of boutonnières and corsages, to increase the purchase of flowers for display in homes and to provide a practical means of profitably disposing of the surplus stock of flower shops, thereby reducing the heavy losses due to the perishing of cut flowers in such shops.

In addition the invention has for its object to provide a refrigerated cabinet provided with a relatively large glass enclosed compartment for reception of flowers, which is adequately refrigerated and which is conveniently accessible, for insertion and removal of flowers, and which is provided with means for receiving and supporting both long and short stem flowers in such manner that the individual flowers may be inserted or removed without the necessity of handling any of the other flowers in the case.

With the above and other objects in view, the invention may be said to comprise a cabinet of the size illustrated in the accompanying drawing hereinafter described and particularly set forth in the appended claims, together with such variations and modifications thereof as will be apparent to one skilled in the art to which the invention appertains.

Reference should be had to the accompanying drawing forming a part of this specification, in which:

Figure 1 is a perspective view of a display cabinet which embodies the present invention;

Fig. 2 is a side elevation of the display cabinet with the upper portion thereof shown in section;

Fig. 3 is a perspective view of one of the cellular flower supports used in the cabinet;

Fig. 4 is a fragmentary perspective view showing an alternative form of flower support;

Fig. 5 is a side elevation showing the lid in open position;

Fig. 6 is a fragmentary section taken on the line indicated at 6—6 in Fig. 2; and

Fig. 7 is a fragmentary section taken on the line indicated at 7—7 in Fig. 2.

The cabinet of the present invention consists of a rectangular housing 1, provided with a fluid-tight, horizontal partition 2 of heat insulating

material, which forms the top of a compartment 3 in which the motor and refrigerating equipment may be housed. The upper portion of the housing is divided by a partition 4 extending from one side wall to the other of the housing near the rear wall and horizontally across the housing a short distance above the partition 2 into a relatively deep display compartment 5 at the front, and a relatively narrow refrigerating compartment 6 at the rear of the compartment 5.

The display compartment 5 occupies the major portion of the upper part of the housing and it is in this compartment that the flowers are placed for display purposes.

The partition 4 has a mirror surface 7 on the front thereof to reflect images of the flowers in the display compartment.

The refrigerating compartment 6 contains suitable means for extracting heat from the display compartment. Mechanical refrigeration is preferred, but the compartment 6 may be used as an ice compartment if desired. The display compartment has glass side walls 8, a glass front wall 9 and the top thereof is covered by a glass lid 10 connected to the housing by hinges 11 at its rear edge. The lid 10 is arranged to swing from its horizontal closed position to a position slightly past the vertical. A suitable air cushion check is provided to insure gentle closing of the lid. As herein shown, the check consists of an air cylinder 12 hinged to the housing and a piston 13 hinged to the lid, suitable means being provided for allowing entry of air into the cylinder during the opening movement of the lid and gradual escape of air from the cylinder during the final closing movement of the lid. A stop pin 14 is engaged by the piston when the piston and cylinder are in a substantially vertical position to limit the rearward swinging movement of the lid and to support the lid in a position inclined at a small angle rearwardly from the vertical.

In the bottom of the display compartment is a flower supporting frame which may consist of a series of elongated cellular flower supports of different heights such as shown in Figs. 1, 2, and 3, and 6. The flower supports 15 extend nearly the full length of the compartment and the higher supports are preferably placed at the rear as shown in Fig. 2. As shown in Fig. 3, each rectangular support consists of an outer framework and zigzag partitions 16 which form between them closely spaced upright tubes 17 which are adapted to receive the stems of flowers. The cellular flower supports 15 are provided at their ends with suitable projecting lugs 18 by means of 55

which they are supported on the ends of a water pan 19.

In Fig. 4 there is shown another form of supporting frame, which consists of a flat plate 20 adapted to be supported at its ends on the water pan 19, the plate 20 being provided throughout its entire extent with closely spaced holes 21 in which tapering tubular flower supporting members 22 are detachably seated. The supporting members 22 are of different lengths to accommodate flowers with long and short stems.

The water pan 19, which extends nearly the full length of the display compartment, rests upon the bottom 2, and flowers placed in the supporting frame have their stems extending down through tubular supporting members into the water in the pan 19.

When the cabinet is mechanically refrigerated, refrigerating pipes 23 extend up into the vertical portion of the compartment 6 to a coil 24 near the top of the compartment to maintain the air in the display compartment at the desired temperature.

The upper edge of the partition 4 is below the top wall of the housing providing a slot 25 along the top for circulation of air between the compartments 5 and 6. The lower edge of the partition 4 is above the horizontal partition 2, so that air may circulate under the lower edge of the partition and along opposite ends of the water pan and flower supports which are spaced from the ends of the compartment 5.

In order to avoid dimming of the mirror 7 by condensation of moisture thereon it is desirable to maintain the temperature of the mirror about the same as that of the air with which it contacts. To this end partition 4 is preferably composed of heat insulating material.

The device of the present invention provides a simple and relatively inexpensive portable flower display cabinet which provides means for supporting the flowers in such manner that individual flowers may be quickly and easily removed, and by means of which an attractive display of flowers may be made in places where large numbers of people pass.

Furthermore, it is to be understood that the particular form of apparatus shown and described, and the particular procedure set forth, are presented for purposes of explanation and illustration, and that various modifications of said apparatus and procedure can be made without departing from my invention as defined in the appended claims.

What I claim is:

1. A refrigerating display cabinet comprising a housing provided with a display compartment in the upper portion thereof which is provided with transparent front, end and top walls, a partition forming the rear wall of said display compartment, said partition being spaced from the rear wall of the housing to provide a narrow refrigerating compartment at the rear of the display compartment, a flower supporting frame forming the bottom of the display compartment, said frame comprising closely spaced upright tubular open ended stem receiving members, and a water pan supported in the housing immediately beneath said supporting frame to receive stems projecting through said tubular members.

2. A refrigerating display cabinet comprising a housing provided with a display compartment in the upper portion thereof which is provided with transparent front, end and top walls, a parti-

tion forming the rear wall of said display compartment, said partition being spaced from the rear wall of the housing to provide a narrow refrigerating compartment at the rear of the display compartment, a flower supporting frame forming the bottom of the display compartment, said frame comprising closely spaced upright tubular open ended stem receiving members, said tubular members being of different lengths to accommodate flower stems of various lengths, and a water pan supported in the housing immediately beneath said supporting frame to receive stems projecting through said tubular members.

3. A refrigerating display cabinet comprising a housing provided with a display compartment in the upper portion thereof which is provided with transparent front, end and top walls, a partition forming the rear wall of said display compartment, said partition being spaced from the rear wall of the housing to provide a narrow refrigerating compartment at the rear of the display compartment, the front surface of said partition being a mirror, a flower supporting frame forming the bottom of the display compartment, said frame comprising closely spaced, upright, tubular, open ended stem receiving members, and a water pan supported in the housing immediately beneath said supporting frame to receive stems projecting through said tubular members.

4. A refrigerating display cabinet comprising a housing provided with a display compartment in the upper portion thereof which is provided with transparent front, end and top walls, a partition forming the rear wall of said display compartment, said partition being spaced from the rear wall of the housing to provide a narrow refrigerating compartment at the rear of the display compartment, a flower supporting frame forming the bottom of the display compartment, said frame comprising closely spaced, upright, tubular, open ended stem receiving members, a water pan supported in the housing immediately beneath said supporting frame to receive stems projecting through said tubular members, and refrigerating coil in the upper portion of the refrigerating compartment.

5. A refrigerating display cabinet comprising a housing provided with a display compartment in the upper portion thereof which is provided with transparent front, end and top walls, said top wall being hinged along its rear edge, a partition forming the rear wall of said display compartment, said partition being spaced from the rear wall of the housing to provide a narrow refrigerating compartment at the rear of the display compartment, a flower supporting frame forming the bottom of the display compartment, said frame comprising closely spaced upright tubular open ended stem receiving members, and a water pan supported in the housing immediately beneath said supporting frame to receive stems projecting through said tubular members, said supporting frame and water pan being removable through the top of the housing when said top wall is swung to open position.

6. A refrigerating display cabinet comprising a housing provided with a display compartment in the upper portion thereof which is provided with transparent front, end and top walls, a partition forming the rear wall of said display compartment, said partition being spaced from the rear wall of the housing to provide a narrow refrigerating compartment at the rear of the display

play compartment, a flower supporting frame forming the bottom of the display compartment, said frame comprising a plurality of rectangular cellular units of different heights extending the full length of the compartment, each unit having closely spaced tubular stem receiving portions which are open at top and bottom, and a water pan supported in the housing immediately beneath the supporting frame.

7. A refrigerating display cabinet comprising a housing provided with a display compartment in the upper portion thereof which is provided with transparent front, end and top walls, a partition forming the rear wall of said display compartment, said partition being spaced from the rear wall of the housing to provide a narrow refrigerating compartment at the rear of the display compartment, a flower supporting frame forming the bottom of the display compartment, said frame comprising a plate supported in the housing and having closely spaced openings throughout the extent thereof and open ended

tapering tubular flower supporting members of different lengths supported in said openings, and a water pan supported in the housing immediately beneath the supporting frame.

8. A refrigerating display cabinet comprising a housing provided with a display compartment in the upper portion thereof which is provided with transparent front, end and top walls, a partition forming the rear wall of said display compartment, said partition being spaced from the rear wall of the housing to provide a narrow refrigerating compartment at the rear of the display compartment, an air passage being provided along an edge of the partition for circulation of air between the display and refrigerating compartments, the front face of said partition having a mirror surface and said partition being composed of heat insulating material back of the mirror so that the temperature of the mirror is maintained at near the temperature of the air with which it contacts.

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