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2,174,983

SHOWCASE CONSTRUCTION

Filed June 22, 1936

2 Sheets-Sheet 1

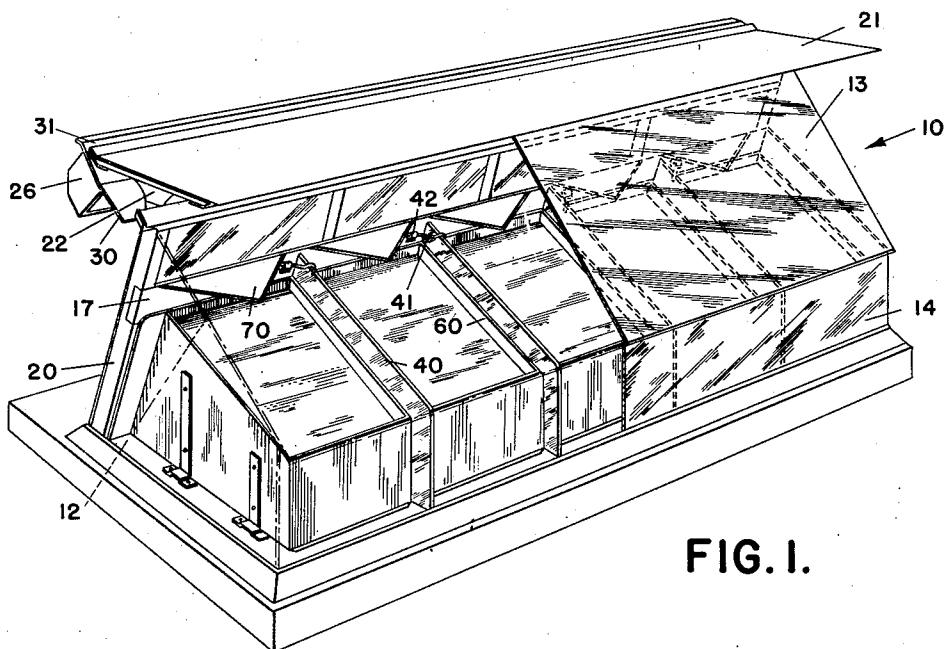


FIG. 1.

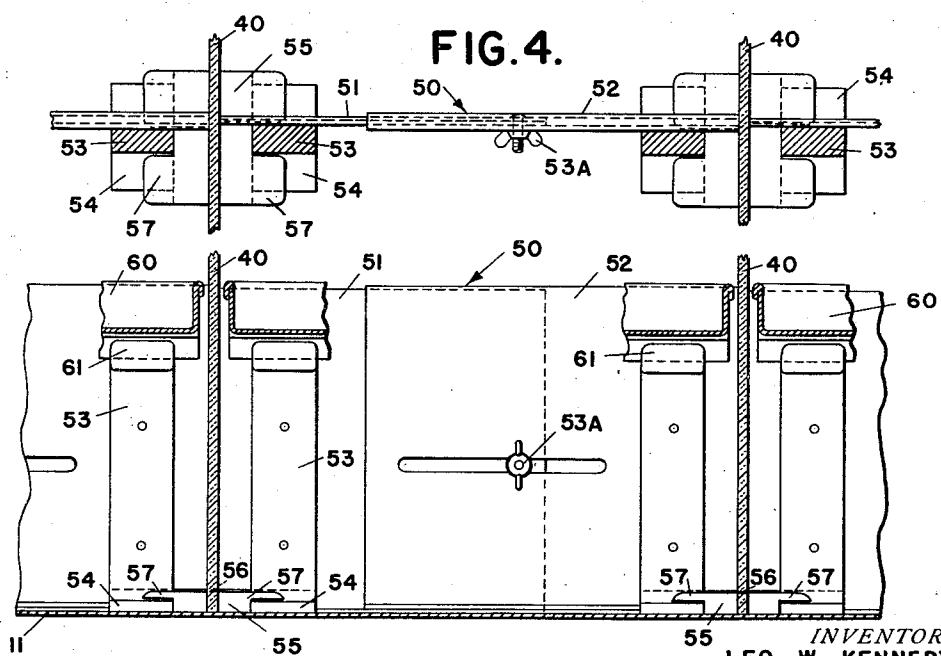


FIG. 3.

 BY

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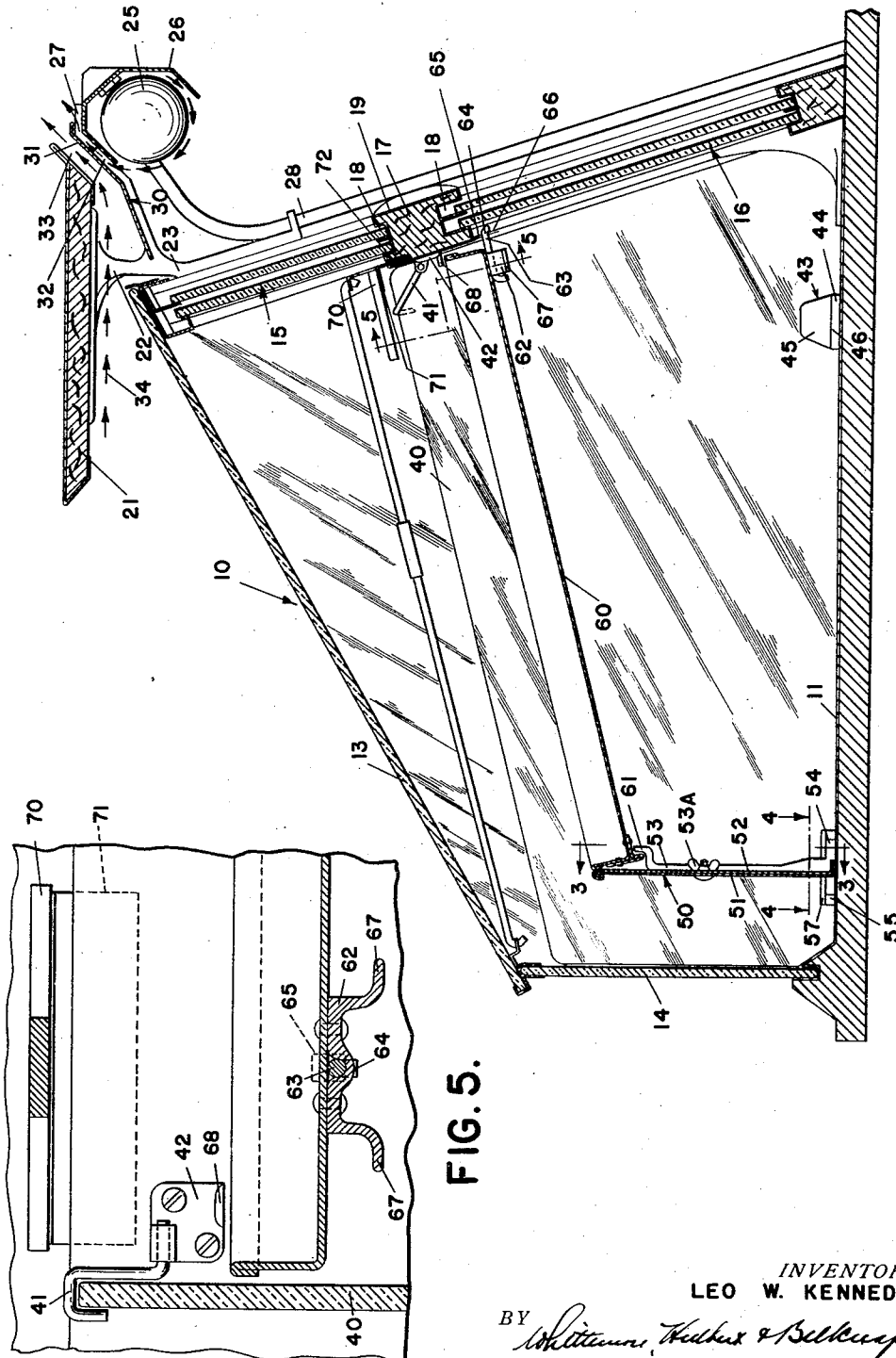
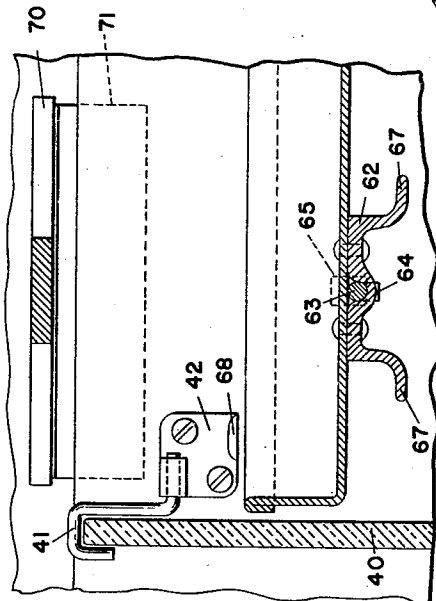
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SHOWCASE CONSTRUCTION

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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SHOWCASE CONSTRUCTION

Leo W. Kennedy, Detroit, Mich.

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5 Claims. (Cl. 240-6)

This invention relates to show cases and has as one of its objects to simplify, rendering more efficient, and improve generally display cabinets of the type having transparent or glass walls.

5 One of the principal objects of this invention is to provide illuminating means for the show case located exteriorly of the case in a position to direct light rays toward the display and substantially parallel to the top glass wall of the case to avoid reflections in the latter.

10 Another object of this invention resides in the provision of a show case of the above type having a shelf supported above the top wall of the case adjacent the rear of the latter and having means cooperating with the illuminating means for effecting a circulation of air at room temperatures between the shelf and illuminating means.

Another advantageous feature of the present invention resides in the novel means provided herein for removably securing glass partitions in the show case at points spaced predetermined distances from each other in the direction of length of the case.

25 Still another object of the present invention resides in the novel means provided in the show case for readily removably securing a sham therein and also in the provision of means for supporting an identification card above each of the shams.

The foregoing, as well as other objects, will be made more apparent as this description proceeds, especially when considered in connection with the accompanying drawings, wherein:

35 Figure 1 is a perspective view of a show case constructed in accordance with the present invention;

Figure 2 is a cross sectional view through the show case construction shown in Figure 1;

40 Figure 3 is a sectional view taken substantially on the plane indicated by the line 3-3 of Figure 2;

Figure 4 is a cross sectional view taken substantially on the plane indicated by the line 4-4 of Figure 2; and

Figure 5 is a sectional view taken substantially on the plane indicated by the line 5-5 of Figure 2.

50 Referring now to the drawings, it will be noted that there is illustrated in the several figures a show case construction 10 having a bottom wall 11 and having transparent end, top and front walls 12, 13, and 14, respectively. The aforesaid walls are preferably formed of glass and are held

in assembled relation to each other in accordance with conventional practice.

The rear side of the show case is open to provide access to the area within the case and provision is made for closing the rear side of the case. In the present instance, the closure for the open rear side of the case comprises a plurality of slidable upper and lower glass panels 15 and 16 cooperating with each other in one relative position thereof to close the rear open side of the show case. In accordance with conventional practice, adjacent glass panels at the upper portion of the opening in the rear side of the case are supported in lateral spaced relationship to permit the same to slide past each other when it is desired to gain access to the interior of the case. This is also true of the glass panels 16 for the lower portion of the opening through the rear wall of the case, and the two sets of panels are separated from each other by means of a division bar 17 having laterally spaced channels 18 in the top and bottom sides thereof for respectively receiving the adjacent edges of the two sets of glass panels. The division bar 17 is preferably formed of wood and is enclosed in a sheet metal casing 19.

The opposite ends of the division bar 17 are connected to stanchions 20 forming the rear corner posts for the show case and adapted to support a shelf 21 above the top wall 13 of the show case. Upon reference to Figure 1, it will be noted that the shelf 21 extends substantially the full length of the show case and is adapted to rest upon the upper ends of brackets 22 having the lower end portions 23 fixedly secured to the stanchions.

It has previously been stated that one of the principal objects of the present invention is to illuminate the interior of the show case by illuminating means located exteriorly of the case in a position to direct the light rays through the glass closure panels 15 in a direction substantially parallel to the top glass wall 13 of the case. This arrangement prevents the heat generated by the illuminating means from entering the show case and also more effectively illuminates the display in the case because it prevents reflections from appearing in the top glass 13. In Figure 2 of the drawings, I have shown illuminating means in the form of electric light bulbs 25 secured at spaced points in a reflector 26, preferably formed of sheet metal and extending for substantially the full length of the show case. It will also be observed from Figure 2 that the reflector is spaced a substantial distance in rear

of the slidable glass closures for the opening at the rear side of the case, and the opposite end portions of the top wall of the reflector are secured to arms 27 extending rearwardly from the brackets 23 beneath the shelf 21. The front side of the reflector 26 is opened to permit the light rays from the illuminating means 25 to pass into the show case through the glass panels 15 of the closure in a direction substantially parallel to the top wall 13 of the case, with the result that the interior of the show case is insulated from the heat generated by the illuminating means and reflections are prevented from appearing in the top glass of the show case.

In the present instance, the bulbs forming the source of illumination are detachably secured in sockets in accordance with conventional practice, and these sockets in turn are secured to the rear wall of the reflector 26 at points spaced longitudinally from each other. The sockets are electrically connected to a source of electrical energy through the medium of conductors housed within the armored cable 28.

In accordance with this invention, the heat generated by the illuminating means is also prevented from effecting the temperature of the contents of the shelf 21 and this is accomplished by insuring a circulation of air at room temperature beneath the shelf 21. In detail, a baffle 30 is secured to the arms 27 of the bracket 23 between the reflector 26 and the rear side of the shelf. The length of the baffle 30 approximates the length of the reflector 26, and the forward end of the baffle extends to a position in close proximity to the rear side of the show case in order to prevent the heated air circulating around the illuminating means from passing upwardly into contact with the shelf 21. The rear end portion 31 of the baffle 30 divides the space between the corresponding side of the shelf 21 and adjacent side of the reflector 26 into two passages 32 and 33. The passage 32 forms, in effect, an upwardly directed flue permitting the heated air in the reflector to escape without coming in contact with the shelf 21. The escape of heated air through the flue 32 in an upward direction produces a slight suction effect at the discharge end of the passage 31 and causes a movement of air at room temperature beneath the shelf 21 in the direction of the arrows 34. It necessarily follows, therefore, that the illuminating means is prevented from effecting the temperature of the display on the shelf 21, and this feature is of particular importance in displaying perishable articles.

In show cases of the general type defined herein, it is common practice to divide the interior of the case into a plurality of compartments by locating partitions 40 at points spaced from each other in the direction of length of the show case. The present invention contemplates improved means for readily removably securing these partitions in place, and this means includes hooks 41 pivotally supported on the cross member 17 by means of the brackets 42. As shown particularly in Figure 5, the hooks engage the upper edges of the partitions 40 adjacent the rear ends thereof to prevent lateral displacement of the partitions, and are adapted to be swung upwardly from a position in engagement with the partitions to release the latter.

In order to secure the lower edge portions of the partitions in position, I provide clips 43 having base portions 44 secured to the bottom wall 11 of the show case adjacent the rear ends of

the partitions and having upwardly extending laterally spaced fingers 45 adapted to engage portions of opposite sides of the partitions. It will, of course, be understood that the lower edge of each of the partitions is slotted, as at 46, to receive the base portions 44 of the clips and to permit the lower edges of the partitions to rest on the bottom 11 of the show case.

It has also been customary to provide shams between the partitions in the show case, and the present invention contemplates relatively simple means for readily removably securing the shams in place. In Figure 3 of the drawings, I have shown a sham 50 comprising telescopically engaging sections 51 and 52 adjustably secured together, as at 53a, to permit the width of the sham to be varied in accordance with the available space. Secured to each of the sections of the sham is a bracket 53 having laterally spaced foot flanges 54 at the lower ends thereof resting on the bottom wall of the show case. In the present instance, the sections of the sham are removably secured to the bottom wall 11 of the show case by means of suitable fixtures 55 extending through slots 56 formed in the lower edges of the partitions and having laterally spaced extensions 57 at opposite sides thereof for engaging the upper sides of the foot flanges 54 on the brackets 53 of adjacent shams. Inasmuch as the fixtures 55 are prevented from upward displacement relative to the bottom 11 of the show case by the partitions 40, it necessarily follows that these fixtures will also secure the shams in position on the bottom 11 of the show case.

Referring again to Figure 2 of the drawings, it will be noted that each of the shams is provided with a removable tray 60 having the forward end resting upon lateral extensions 61 of the brackets 53 and having the rear ends detachably secured to the cross member 17. As shown in Figure 5, the securing means for the rear end of each tray comprises a bracket 62 secured to the underside of the tray at the rear of the latter and cooperating with the bottom wall of the tray to slidably receive a latch member 63. The latch member is in the form of a pin having the opposite ends bent, in the manner shown, to prevent disengagement of the latch member from the bracket. The rear hooked end 64 of the latch member is adapted to extend through an opening 65 in a flange 66 depending from the front side of the cross member 17. The opening is of sufficient dimension to permit the hooked end 64 of the latch members to be readily inserted therethrough, and the lower marginal edge portion of the opening cooperates with the hook on the end 64 to prevent accidental displacement of the latch member. It will, of course, be understood that when it is desired to remove the tray, the rear end of the latter is raised until the latch member 63 engages the upper end of the opening 65, whereupon the latch member may be shifted forwardly to release the hooked end 64 from the opening 65. In this connection, it will be noted that the bracket 62 is provided with laterally outwardly extending finger engaging portions 67 to facilitate manipulation of the tray. Attention is also called to the fact that assembly of the hooked end 64 of the latch member within the opening 65 is expedited by the provision of a stop 68 on the bracket 42 carrying the hook 41. The stop 68 is so positioned that when the upper rear edge of the tray is engaged therewith, the hooked end 64 of the latch 63 is in registration with the opening 65 and may be

inserted in the latter by merely shifting the latch member rearwardly.

In addition to the foregoing, the present invention contemplates means for supporting an identification card above each of the shams in the show case. This is accomplished in the present instance by providing a sheet metal card tray 70 having a bracket 71 secured to the underside thereof adjacent the rear end of the same and having a portion adapted to be received within a recess 72 formed in the cross member 17. The recess 72 is formed by fashioning the sheet metal casing 19 of the cross member 17 with an upwardly directed open return bent portion having sufficient width to frictionally receive the depending flanges on the brackets 71. The open return bent portion preferably extends for substantially the full length of the cross member and thereby permits assembling the card trays at any desired point along the length of the cross member.

What I claim as my invention is:

1. In a show case construction having transparent top and rear walls, a shelf positioned above the top wall of the show case at the rear side of the latter, a bracket secured to the show case and having a portion supporting the shelf, means for illuminating the interior of the show case including a source of illumination located exteriorly of the show case in spaced relation to the rear wall of the latter, a reflector secured to the bracket below the rear end portion of the shelf and associated with the illuminating means for directing light rays through the rear wall of the case, and a baffle also carried by the bracket and extending from the reflector to the rear wall of the case to shield the shelf from the heat generated by the illuminating means and to assist the reflector in directing the light rays through the rear wall of the case.
2. In a show case construction having transparent top and rear walls, a shelf positioned above the top wall of the show case at the rear side of the latter, a light source for illuminating the interior of the show case located exteriorly of the show case adjacent the rear edge of the shelf, a bracket secured to the show case and having a portion extending upwardly therefrom for supporting the shelf and another portion extending rearwardly therefrom for supporting the light source, a reflector secured to the last-mentioned portion of the bracket and associated with the light source for directing light rays through the rear wall of the case, and an inclined baffle also carried by the bracket and extending from the rear wall of the case upwardly between the shelf and the light source in spaced relation to both of the latter to form two passages, the passage adjacent the light source forming a flue for the

escape of air heated by the light source and the passage adjacent the shelf responsive to the escape of heated air aforesaid to effect a circulation of air at room temperature in proximity to the shelf.

3. In a show case having top and rear walls, a shelf positioned above the top wall at the rear side of the show case, means for illuminating the interior of the show case including a source of illumination located exteriorly of the show case in spaced relation to a wall thereof, a bracket secured to the show case and having a portion supporting the shelf and a portion supporting the source of illumination, and a baffle carried by the show case and extending upwardly adjacent the source of illumination in spaced relation thereto to form a passage having a discharge opening at its upper end to discharge the air heated by the illuminating means above the shelf and to prevent the heated air from contacting with the shelf.

4. In a show case having top and rear walls, a shelf positioned above the top wall at the rear side of the show case, means for illuminating the interior of the show case including a source of illumination located exteriorly of the show case in spaced relation to a wall thereof, a bracket secured to the show case and having a portion supporting the shelf and a portion supporting the source of illumination, and a baffle carried by the show case and extending upwardly between the shelf and the illuminating means dividing the space therebetween into two passages, said passages having adjacent discharge openings at their upper ends, the escape of heated air from the discharge opening of the passage adjacent the illuminating means creating a slight suction at the discharge opening of the passage adjacent the shelf and effecting a circulation of air at room temperature through said last mentioned passage.

5. In a show case construction having top and rear walls, a shelf positioned above the top wall of the show case at the rear side of the latter, a light source for illuminating the interior of the show case located exteriorly of the show case adjacent one wall thereof for directing light rays into the show case, a bracket secured to the show case having a portion supporting the shelf and another portion supporting the light source, and a baffle also carried by the bracket and extending upwardly between the shelf and the light source in spaced relation to both of the latter to form two passages, the passage adjacent the light source forming a flue for the escape of air heated by the light source and the passage adjacent the shelf responsive to the escape of heated air aforesaid to effect a circulation of air at room temperature in proximity to the shelf.

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