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F. D. WRIGHT

2,654,508

OIL CAN DISPLAY RACK AND CABINET

Filed April 16, 1949

2 Sheets-Sheet 1

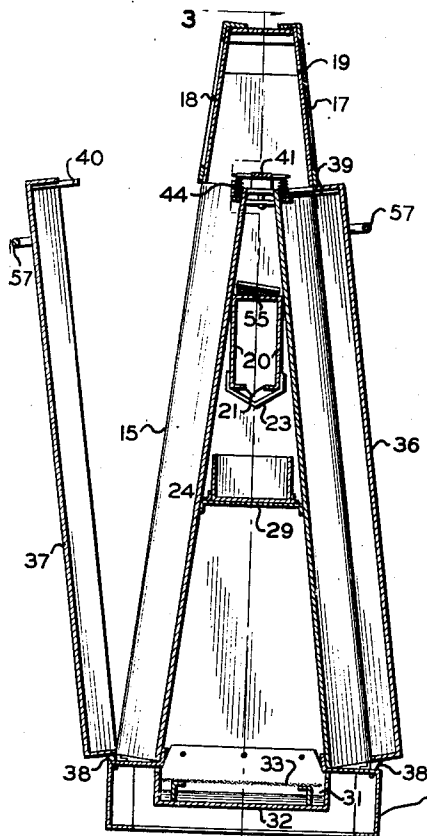


FIG. 4

FIG. 2

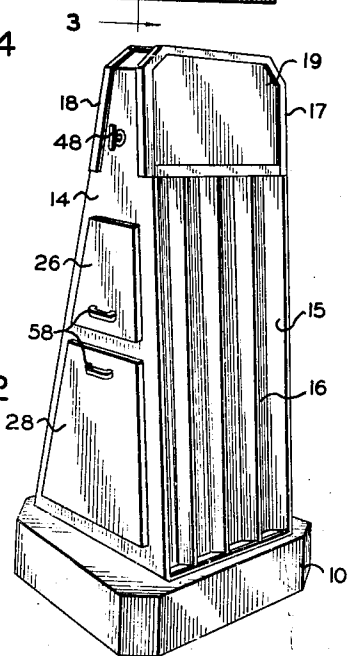
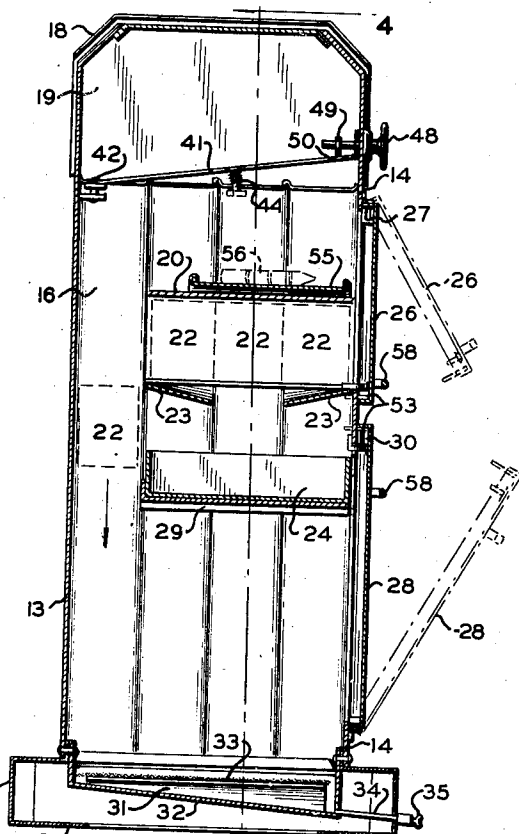


FIG. 3

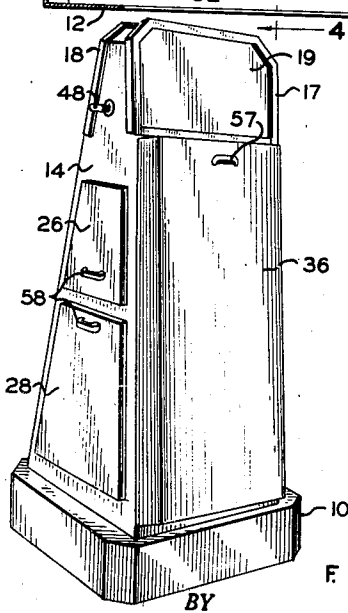


FIG. 1

INVENTOR.
F. D. WRIGHT

BY

A. J. DOWELL
ATTORNEY

Oct. 6, 1953

F. D. WRIGHT

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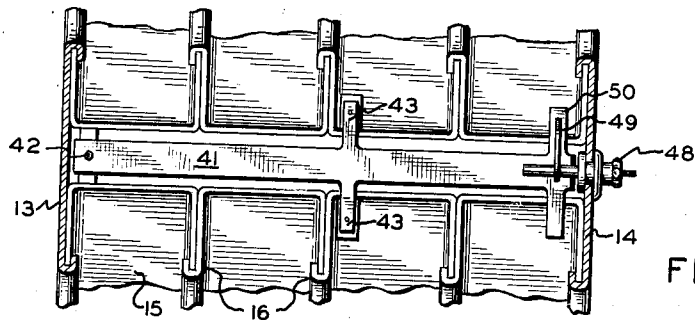


FIG. 5

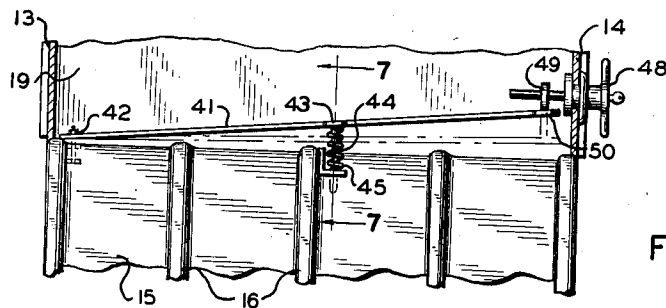


FIG. 6

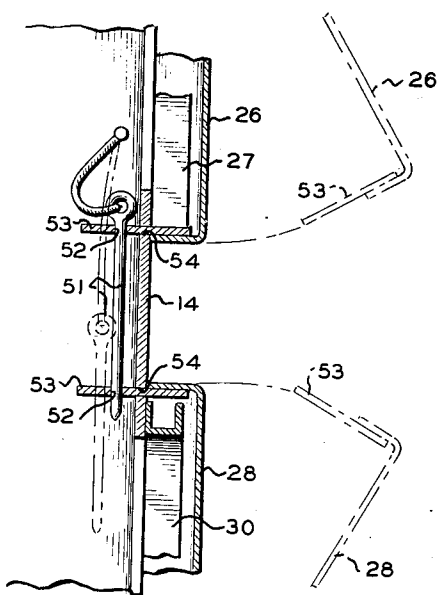


FIG. 9

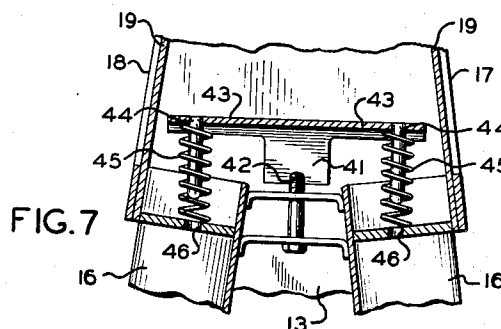


FIG. 7

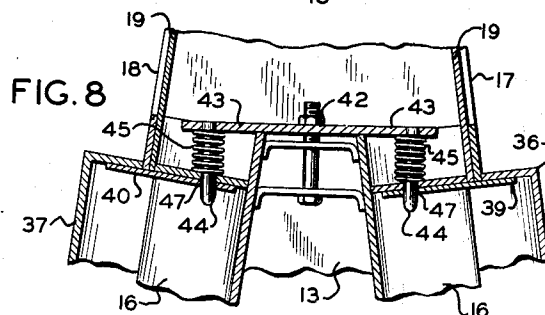


FIG. 8

INVENTOR.
F. D. WRIGHT

BY

A. Yates Dowell
ATTORNEY

UNITED STATES PATENT OFFICE

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OIL CAN DISPLAY RACK AND CABINET

Fred D. Wright, Nashville, Tenn., assignor to
Fred D. Wright Co., Inc., Nashville, Tenn., a
corporation of Tennessee

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5 Claims. (Cl. 222-112)

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This invention relates to merchandise and more particularly to a display cabinet for holding and displaying cans of lubricating oil and the like and in which means is provided for disposing of the empty cans and salvaging any oil which may remain therein.

Numerous devices of this nature have been heretofore developed and patented but many of these for various reasons were unsatisfactory, particularly as respects convenience of use, sturdiness, appearance, insecure locking mechanisms which rendered the devices subject to theft, as well as relatively expensive construction which rendered the prior art devices somewhat impractical.

It is therefore an object of this invention to provide in a single unitary structure a display cabinet having means for holding and displaying a plurality of containers, such as cans of lubricating oil, as well as means for disposal of empty cans which provides for draining the residual contents of these cans into a receptacle prior to collecting of the empty cans within the interior of the cabinet in a bin adjacent the bottom thereof.

It is a further object of the invention to provide a display cabinet in which a sump is provided in the bottom thereof to collect any oil or other liquid which may drain from empty cans collected on a perforated platform within the base.

It is a further object of the invention to provide a display cabinet in which removable covers or doors are provided for the cabinet and in which doors permitting access to the empty can section and to the used can disposal device are hinged to the body of the cabinet, a single locking means being provided which effectively prevents unauthorized access to any portion of the cabinet.

It is a further object of the invention to provide a cabinet which presents a pleasing appearance and on which means is provided for attractively displaying advertising matter.

It is a further object of the invention to provide a display cabinet having container disposal features in which means is provided for preventing entry of rain into the interior of the cabinet and in which means is further provided for permitting the cabinet to be securely fastened to a masonry or other supporting structure.

Further objects and advantages of the present invention will become apparent from the following description taken in conjunction with the accompanying drawings, wherein:

Fig. 1 is a perspective view showing the display cabinet of this invention with the removable covers applied and locked in position;

Fig. 2, a perspective showing the display cabinet of this invention with the covers removed;

Fig. 3, a sectional view taken on the line 3-3

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of Fig. 4 showing the interior construction of the display cabinet particularly the can disposal means and the locking mechanism;

Fig. 4, a sectional view taken on the line 4-4 of Fig. 3 and showing the interior structure of the device as well as the operation of the removable covers;

Fig. 5, a fragmentary plan view showing the locking mechanism for the removable covers;

Fig. 6, a fragmentary elevational view showing in full lines the locking mechanism of Fig. 5 in unlocked position and in phantom in locked position;

Fig. 7, a fragmentary sectional view on the line 7-7 of Fig. 6 showing the details of the locking mechanism in unlocked position;

Fig. 8, a view similar to Fig. 7 showing the locking mechanism in locked position; and,

Fig. 9, a fragmentary sectional view showing the latching means for the access doors to the can disposal means and empty can bin.

With continued reference to the drawing, the display rack or cabinet and can disposal means of this invention is constructed largely of sheet metal stampings and comprises a generally rectangular base 10 of appreciable height providing a chamber interiorly thereof, the purpose of which will be presently described. For convenience in securing the base to a masonry support or the like inwardly projecting flanges 11 are provided and suitable apertures 12 extend through the flanges 11 for reception of fastening bolts or other suitable securing means.

To the upper surface of base 10 there is secured sheet metal end members 13 and 14 of generally triangular configuration and between these end members on each side of the rack there is provided a plurality of channels 15 formed by U-shaped sheet metal members 16 for the reception of a plurality of containers arranged in vertical stacked relation. The various sheet metal parts may be secured together by rivets, spot welding, beading, or other securing means well known to the sheet metal art. Also adjacent the top of the device there may be provided moldings 17 and 18 surrounding panels 19 on each side of the rack which panels are adapted to receive and attractively display advertising matter.

Within the cabinet is provided means for receiving empty cans or containers in such a position as to permit drainage of any of the contents of the containers which may remain therein. This is particularly advantageous in the case of lubricating oil since a certain amount of the oil will remain in the container after use and salvage of this oil presents a very real savings to filling station operators or others who have occasion to use a large number of containers of such material. A track or guide way for receiv-

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ing the empty containers may comprise a sheet metal member 20 having inwardly extending flanges 21 upon which the containers 22 are adapted to rest. Any oil or other fluent material remaining within the containers will drain therefrom through the space between the inner edges of the flanges 21 and be directed by inclined troughs 23 into a removable drawer-like receptacle 24. The container receiving track 20 is dimensioned to receive a plurality of containers, three of which are shown in position in dotted lines in Fig. 3 and thus these containers remain on the track way in an inverted upright position for an appreciable period of time permitting substantially complete drainage of the contents thereof. As each new container is introduced onto the track way 20 the last container 22 moves from the end thereof and as shown in dotted lines and by the arrow in Fig. 3, drops to the bottom of the cabinet where, if desired, a suitable container or bin (not shown) may be provided for the reception thereof. Preferably, the cans come to rest upon a perforated plate 33 for a purpose to be described more fully hereinafter. Access to the track way 20 is provided by a door 26 hingedly mounted on the end member 14, there being provided a U-shaped channel 27 to prevent entry of rain into the interior of the cabinet by reason of the rain running down the end member 14 and around the edges of the door 26.

A second door 28 is hingedly connected to the end member 14 and provides access to the empty can bin 25 as well as to the drawer-like receptacle 24 supported on a shelf 29 secured to the inner walls of the cabinet. Opening of the door 28 permits removal of the receptacle 24 to empty the contents thereof and also permits access to the bin 25 for removal of empty cans stored therein. There is also provided a U-shaped channel 30 adjacent the edges of the door 28 for preventing entry of rain in a manner similar to that described above in connection with channel 27.

Within the base 10 of the cabinet there is provided a sump 31 having an inclined bottom 32 and immediately above this inclined bottom there is provided a perforated tray 33 upon which empty cans are adapted to rest after ejection from the track way 20. Perforated tray 33 permits any oil or other fluid which may drain from the cans to pass therethrough into the sump 31 and along the inclined bottom 32 to the lowermost point thereof. Any oil collected therein may be drained through a conduit 34 having a removable screw threaded closure 35 on the outer end thereof.

It will be seen that by the above described structure there has been provided means whereby the major portion of any oil present in the containers will be drained therefrom during the time that the containers are disposed in inverted position on the track way 20 and any oil which may remain therein after ejection from the track way will be drained into the sump 31 prior to removal of the empty cans from the bin 25.

Since it is intended that the cabinet of this invention be mounted and secured in place in the open adjacent the drive ways and pumps of a filling station or the like, it is necessary to provide means for protecting the contents thereof against unauthorized access and theft. For this purpose removable covers or doors 36 and 37 are provided for the channels 15, these covers having downwardly extending projections 38 adapted to engage in recesses in the base 10 of the cabinet, the covers being swingable to closed position as

shown in Fig. 1 and at the right in Fig. 4 and being completely removable from the rack by merely swinging the same outwardly and lifting projections 38 from their associated recesses.

Covers 36 and 37 are provided with inwardly extending locking members 39 and 40 respectively which cooperate with a locking mechanism disposed within the upper portion of the cabinet. This mechanism comprises a locking bar 41 pivotally secured at 42 to the cabinet structure, bar 41 being provided with outwardly extending projections 43 having downwardly extending locking pins 44 adjacent the ends thereof. As shown in Figs. 4, 6, 7 and 8, pins 44 are surrounded by compression springs 45 which urge extensions 43 and bar 41 upwardly to unlock position, the pins 44 when in locked position, as shown in phantom in Fig. 6 and in full lines in Fig. 8, extending through apertures 46 in the cabinet structure and through apertures 47 in the locking members 39 and 40 secured to the covers 36 and 37 respectively.

In order to operate the locking bar 41 and locking pins 44 there is provided in the end member 14 a key controlled locking handle 48 which is provided on the inner end thereof with a cam 49 engaging a cam follower 50 on the end of the bar 41 remote from the pivotal connection 42. As will be seen from an inspection of Fig. 6, it is only necessary to rotate the handle 48 in a clockwise direction to cause the cam 49 to engage the cam follower 50 and move the bar 41 downwardly which will result in engagement of the locking pins 44 with the apertures 47 in locking members 39 and 40. Movement of the handle 48 in the opposite direction will permit retraction of the locking pins 44 under the action of springs 45. This structure provides a simple and efficient locking means for securely locking both covers 36 and 37 in closed position.

In order to prevent access to the interior of the cabinet, doors 26 and 28 are locked in closed position by engagement of a pin 51 with apertures 52 in ears 53 projecting inwardly from doors 26 and 28. When in closed position ears 53 extend through apertures 54 in the end member 14 and into the space provided by the front channels 15. It is therefore only necessary for the operator to reach into these channels and engage pin 51 with the apertures 52 and then apply and lock the covers 36 and 37 in position to effectively secure the cabinet against access to either the filled containers disposed in the channels 15 or in the interior of the rack which contains the empty containers as well as material drained therefrom.

For convenience in use there is also provided an auxiliary shelf 55 disposed immediately above the track way 20 for reception of the conventional pouring spout or the like 56 which is normally used in dispensing the contents of the containers in the cabinet. Also for convenience in operation covers 36 and 37 are provided with manipulating handles 57 and doors 26 and 28 are provided with manipulating handles 58.

By the above described invention there has been provided a relatively simple yet highly efficient display rack or cabinet and container disposal means incorporating provisions for salvaging residual contents of the containers as well as providing a simple locking mechanism for securing the device against unauthorized access. It is also apparent that the device may be very economically manufactured from stamped sheet metal parts which provides a sturdy structure

presenting a pleasing appearance which may conveniently harmonize with surrounding equipment.

It will be obvious to those skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore the invention is not limited by that which is shown in the drawings and described in the specification but only as indicated in the appended claims.

What is claimed is:

1. In an oil can display cabinet having a plurality of upwardly extending channels for receiving and supporting cans of oil, means for salvaging residual oil in empty cans and for storing said cans comprising a horizontal track way disposed within said cabinet for receiving and supporting said cans in inverted upright position, a drawer type receptacle disposed beneath said track way to receive oil dripping from said cans, a pair of downwardly and inwardly inclined troughs beneath said track way for directing the oil into said receptacle, a perforated tray in said bin adapted to receive cans from said track way, a sump beneath said tray having an inclined bottom for receiving oil dripping from said cans, a drain for said sump, doors pivotally mounted on said cabinet for preventing access to said track way and said bin, channels cooperating with said doors to prevent entry of rain to the interior of said cabinet, latch means for said doors disposed in said upwardly extending channels on each side of said cabinet, removable covers for said upwardly extending channels and key controlled locking means operated by a single handle for locking said covers in closed position thereby preventing removal of said covers or opening of said doors.

2. In an oil can display cabinet having a plurality of upwardly extending channels for receiving and supporting cans of oil, means for salvaging residual oil in empty cans and for storing said cans comprising a track way disposed within said cabinet for receiving and supporting said cans in inverted position, a receptacle disposed beneath said track way to receive oil dripping from said cans, a pair of troughs beneath said track way for directing the oil into said receptacle, a perforated tray in said bin adapted to receive cans from said track way, a sump beneath said tray having an inclined bottom for receiving oil dripping from said cans, a drain for said sump, doors pivotally mounted on said cabinet for preventing access to said track way and said bin, channels cooperating with said doors to prevent entry of rain to the interior of said cabinet, latch means for said doors disposed in said upwardly extending channels on each side of said cabinet, removable covers for said upwardly extending channels and key controlled lock means operated by a single handle for locking said covers in closed position thereby preventing removal of said covers or opening of said doors.

3. In an oil can display cabinet having a plurality of upwardly extending channels for receiving and supporting cans of oil, means for salvaging residual oil in empty cans and for storing said cans comprising a track way disposed within said cabinet for receiving and supporting said cans in inverted position, a receptacle disposed beneath said track way to receive oil dripping from said cans, a perforated tray in said bin adapted to receive cans from said track way, a sump beneath said tray for receiving oil dripping from said cans, a drain for said sump, doors pivotally mounted

on said cabinet for preventing access to said track way and said bin, channels cooperating with said doors to prevent entry of rain to the interior of said cabinet, latch means for said doors disposed in said upwardly extending channels on each side of said cabinet, removable covers for said upwardly extending channels and key controlled lock means for locking said covers in closed position thereby preventing removal of said covers or opening of said doors.

4. In an oil can cabinet for salvaging residual oil from substantially emptied cans, a substantially horizontally disposed trackway including top and side wall structure and a bottom wall comprising opposed spaced flanges for supporting said substantially emptied cans in inverted position, said cabinet having communication with the exterior immediately adjacent one extremity of said trackway for the insertion of inverted substantially emptied cans on said trackway and the progressive movement of cans therealong, the opposite extremity of said trackway communicating with the interior of said cabinet and being spaced from an inner wall thereof to permit inverted cans to drop from the end thereof, a primary oil recovery receptacle removably mounted within said cabinet beneath said trackway, complementarily inclined opposed troughs disposed above said receptacle transversely of said flanges and beneath said trackway for directing oil draining from the inverted cans into said receptacle, a perforated tray in said cabinet located adjacent the bottom thereof for receiving cans dropping from the end of said trackway, and a secondary oil recovery receptacle within said cabinet located beneath said perforated tray.

5. In an oil can cabinet for salvaging residual oil from substantially emptied cans, a substantially horizontally disposed trackway including top and side walls and a bottom wall, said bottom wall comprising opposed spaced flanges in substantially the same plane extending inwardly from the side wall structure sufficiently far to prevent an end of the can from being unsupported on both flanges at the same time whereby the cans may be maintained in a substantially vertical position with the openings therein being at all times substantially the lowest point of the chamber in each can whereby the maximum amount of oil will be removed from the inverted cans, said side walls being spaced apart a sufficient distance to receive the upright cans and each side wall being spaced from the free edge of the opposite flange a distance no greater than the diameter of the cans, inclined troughs extending from the rear of the trackway forwardly and an inclined trough extending from the forward end of the trackway rearwardly so that the drained oil will be directed in a relatively limited area, and means whereby a receptacle may be supported beneath said limited area whereby substantially all of the oil drained while the cans are on the trackway is collected in said receptacle.

FRED D. WRIGHT.

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