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VALVE SHOP CABINET

5 Sheets-Sheet 3

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By

Attorney
This invention relates to a cabinet in which are mounted various tools for servicing valves of automotive engines.

In the cabinet of the invention a decorative rim is around the top and the rim itself is constructed to support the top of the cabinet which in turn supports heavy tools thereon. The cabinet has a space for tools and this space has an "overhead" door which may be raised and pushed horizontally back into the cabinet and it has likewise a sliding drawer for containing other tools and these various smaller tools have considerable value, so the cabinet must be locked on occasion. In the construction of the instant invention this drawer contains a lock and when the cabinet door is closed and the drawer likewise closed, locking the drawer will also lock the door. The drawer is mounted to slide on rollers which run on ways adjacent the sliding door, which ways in turn serve as ways for the door.

The cabinet is preferably mounted on rollers and is equipped with a light and sockets providing electrical connections for tools, so that when the cabinet is closed it may be operated wherever the cabinet is and so that the cabinet may be placed next to a motor to be serviced and the tools in the cabinet and on it will be in a convenient location for such motor servicing.

Other objects and advantages of the invention will be apparent from the following description and the accompanying drawings forming a part hereof and in which:

Figure 1 is a front perspective view of the cabinet.

Figure 2 is a rear elevational view of the cabinet.

Figure 3 is a fragmentary vertical sectional view showing the electrical sockets.

Figure 4 is a front elevational view of the cabinet with the panel door open.

Figure 5 is a diagrammatic horizontal sectional view substantially on line 5—5 of Figure 4.

Figure 6 is a top plan view of the drawer removed.

Figure 7 is a top plan view of the top of the cabinet with certain portions broken away.

Figure 8 is a fragmentary horizontal sectional view showing the wheel mountings.

Figure 9 is a fragmentary perspective sectional view of the construction of the top of the cabinet, and of the rim therearound.

Figure 10 is a fragmentary vertical sectional view showing the interaction of the drawer and cabinet door.

Figure 11 is a rear view of the cabinet, similar to and a continuation to the rear of Figure 10.

Figure 12 is a side elevational view of the drawer.

Figure 13 is a fragmentary side sectional view of the cabinet with the door closed.

Figure 14 is a horizontal sectional view showing the drawer and door slides.

Figure 15 is an end view of the drawer and door slides.

In the drawings similar numerals refer to similar parts throughout the several views:

The cabinet 1 has therein a drawer 2 and a panel door 3 and the cabinet has resting thereon, shown in dotted lines in Figure 1, a valve refacer 4. A light stand 5 is mounted on a bracket 6 on the back of the cabinet and the stand has thereon a light 7 to illuminate the work on the refacer 4.

Around the top of the cabinet is a band 8 which is longitudinally folded upon itself inwardly, forming a wall 9 and the inner edge of the band is bent inwardly at right angles to form a flange 13. This band is one continuous member around the periphery of the top of the cabinet and it is welded to the top of the cabinet as at 11. The vertical portion 9 of the band rests upon the wall of the cabinet as shown at 12 so that the weight on the cabinet top rests directly upon the top of the wall of the cabinet 1. A metal top 13 rests upon the flange 10 and is welded thereto as at 14. A composition top 15 is then placed over this metal top 13 and to the top comprised of members 13 15 the valve refacer 4 may be bolted. A reinforcing strip 16 may be welded to the under side of the metal top 13, as shown in Figure 7.

At the lower edge the cabinet is reinforced by arcs and angles 17 and 18 respectively and to these arcs and angles roller sockets 19 are welded and in these roller sockets the stems of rollers 20 are inserted. Bars 21 extend from the front to the back of the cabinet and are welded to the turned edges 22 of the front of the cabinet and to the sides 23 of the rear inset portion 24 of the cabinet.

The lower edge of the bar 21 is bent inwardly as at 25 to form a flange which the panel door 3 slides. This door as shown is made of one sheet of metal folded at its edges at right angles to form edges 28 for the door which at the top and bottom are again bent to form inner flanges 27, at the top and bottom and hand hole 28 is pressed in the face of the door with the upper edge being cut for the insertion of the fingers for moving the door. On the outer edge of flange 25 the shank...
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29 of hook 30 is welded. The outer free edge 30 of the hook is more narrow than the shank 29, as shown in Figure 15, to allow for the entrance of the edge of the door between it and the edges 22 and the hook is directed upwardly and to the rear of the cabinet. The upper rim or flange 27 of the door is placed over two similar opposed hooks on each of the closed sides of the cabinet opening of the cabinet to thereby support the door. This flange 27 with the upper edge of the door 26 forms a co-acting hook with the hooks 30 and together they form a hinge for the door to allow it to be swung downwardly closed and when the door is raised horizontally it pivots upon the free ends of the hooks 30 and then it may be slid horizontally back into the cabinet on the flanges 25. It will be noted that the arc made between the end of the hook 30 and its forwardmost circumference is almost equal to the distance between the front of the door 3 and the rear flange 27 to allow very little play between these parts and the hook. After the door is placed on the hooks 30, stops 31 are screwed into the sides 22 of the door opening, and these are so placed as to limit the upward movement of the door when opened or closed and prevent its removal from the hooks 30. The stops are so placed, however, as to allow sufficient vertical movement to the door, when vertical, for the holes 32 in bottom edge 26 of the door to slide over the pins 33 extending upwardly in the door 34 of the cabinet. To this floor, and the turned edges 22 a stop 35 is affixed to limit the inward swinging of the door 3.

To the ends 21 inwardly opening channels 38 are welded. At the forward end this channel is open at the top as shown at 37 and likewise at the forward end, forward in this opening, a roller 38 is mounted on spindle 39 riveted through the channel and bar 21 as shown at 40.

The drawer 2 has riveted on its bottom 41 angles 42 which ride on rollers 38. Projecting downwardly from the rear of the bottom 41 of the drawers, and welded thereto are brackets 43 having rollers 44 mounted on spindles 45 riveted through bracket 43 as shown at 46. These rollers 44 are introduced into channels 36 by tilting the drawer on its introduction, through openings 37 in the sides of the cabinet and then the drawer is brought to a horizontal position and pushed back into the cabinet, the rear end riding on rollers 44 and the forward end riding on rollers 38. At the front, angles 42 end so that they roll from the tops of rollers 38, just when the drawer closes, to thereby make the drawer fall slightly when all the way closed.

The front of the drawer 3 projects considerably below the bottom 41 of the drawer as shown in Figures 10 and 12. The lower portion of the drawer contacts the stops 31, when the drawer is closed, as well as the back of the drawer contacting the back of the cabinet. The bottom of the front of the drawer likewise contacts the top edge 26 of the door 3 when the door is closed, in the lowermost vertical position and when the drawer is closed, it maintains the drawer in this position, so that the door can not be raised and opened. This structure makes it possible to lock the cabinet by means of a single lock 47 on the drawer. It will be noted that the lower flange of the channel 36 likewise serves as the upper guide or flange for the door 3 when it is slid back into the cabinet. The drawer 2 has pressed out handles 48 to pull it out.

Tool racks 49 are welded to the sides of the cabinet. The rear cabinet recess portion 24 has therein a hook 50 on which a cord 51 may be hung when the cabinet is not in use and this cord forms an electrical extension, the ends of which may be plugged into a garage current source and the outlets 52 may then be used for the light 1 and such tools as it may be desirable to operate may be plugged into the remaining sockets for other tools.

The operation and advantages of the various elements of the new cabinet will be apparent from the above detailed description. It will likewise be apparent that various modifications may be made in the detailed structure of the various parts without departing from the invention.

What is claimed as new and is desired to be secured by Letters Patent is:

1. In a cabinet, an outwardly swinging and inwardly sliding panel door constituting a vertical outer wall of the cabinet, the cabinet having therein opposed horizontal extensions on the changes adjacent one edge of the door when closed forming a runway for the door, interengaging open looped hooks on the forward ends of said flanges and the adjacent said one edge of the door forming a hinge structure for the door to retain the door in the cabinet at all times, the hooks on the flanges having free ends directed inwardly and away from the door, substantially the distance of the width of the door hooks, the free ends of the flange hooks interlocking with the door hooks closely when the door is closed, and limiting horizontal movement of the door at the hinge edge, said door being bodily slideable into the cabinet on said opposed flanges upon opening and vertically on said interengaging hooks when closed, and stops in said cabinet, spaced from said hooks on the flanges, and spaced from the door when closed, to prevent the removal of the door from the hooks on the cabinet, and fixedly positioned interlocking means on the cabinet and on the door adjacent the edge opposite the hooks on the door, said stops being spaced from the nearest part of the interlocking means on the cabinet a distance at least equal to the dimension of the door when extended theretwixt, whereby bodily sliding movement of the door first from, then toward the interlocking means on the cabinet engages said interlocking means to retain the door closed.

2. In a cabinet, an outwardly swinging and inwardly sliding panel door constituting a vertical outer wall of the cabinet, the cabinet having therin opposed horizontally extending flanges adjacent one edge of the door when closed forming a runway for the door, interengaging open looped hooks on the forward ends of said flanges and the adjacent side one edge of the door forming a hinge structure for the door to retain the door in the cabinet at all times, the hooks on the flanges having free ends directed inwardly and away from the door substantially the distance of the width of the door hooks, the free ends of the cabinet hooks interlocking with the door hooks closely when the door is closed, and limiting horizontal movement of the door at the hinge edge, said door being bodily slideable into the cabinet on said opposed flanges upon opening and vertically on said interengaging hooks when closed, and stops in said cabinet, spaced from said hooks on the flanges, and spaced from the door when closed, to prevent the removal of the door from the hooks on the cabinet, and fixedly positioned interlocking means on the cabinet and on the door adjacent the edge opposite the hooks on the door, said stops being spaced from the near-
part of the interlocking means on the cabinet a distance at least equal to the dimension of the door when closed therebetween, whereby bodily sliding movement of the door first from, then toward the interlocking means on the cabinet engages said interlocking means to retain the door closed, and means mounted in said cabinet, slidable at right angles to the direction of said bodily movement of the door, to contact the door, to prevent the bodily sliding movement of the door when closed, said sliding means being inoperative to retain the door from movement when slid from the closed door.

3. In a cabinet, a drawer slideable into said cabinet, an outwardly swinging and inwardly sliding panel door constituting a vertical outer wall of the cabinet, the cabinet having therein opposed horizontally extending flanges adjacent one edge of the door when closed forming a runway for the door, interengaging hooks on the forward ends of said flanges and the adjacent said one edge of the door forming a hinge structure for the door to retain the door in the cabinet at all times, said door being bodily slideable into the cabinet on said opposed flanges upon swinging outwardly open and vertically on said interengaging hooks when closed, stops in said cabinet spaced from said hooks on the flanges, and spaced from the door when closed, to prevent the removal of the door from the hooks on the cabinet, and fixedly positioned interlocking means on the cabinet and on the door adjacent the edge opposite the hooks on the door, said stops being spaced from the nearest part of the interlocking means on the cabinet a distance at least equal to the dimension of the door when extended therewith, whereby bodily sliding movement of the door first from, then toward the interlocking means on the cabinet engages said interlocking means to retain the door closed, said drawer having means thereon contacting the door when closed and preventing bodily movement of the door when the interlocking means are engaged, and when the drawer is open said means being inoperative to retain the door from movement.

4. In a cabinet, a drawer slideable horizontally into said cabinet, an outwardly swinging and inwardly sliding panel door immediately beneath said drawer, constituting a vertical outer wall of the cabinet, the cabinet having therein immediately beneath said drawer and adjacent the upper horizontal edge of the door when closed, opposed horizontally extending flanges forming a runway for the door, interengaging hooks on the forward ends of said flanges and the upper edge of the door when closed forming a hinge structure for the door, to retain the door in the cabinet at all times, said door being bodily slideable into the cabinet on said opposed flanges upon swinging outwardly open and vertically on said interengaging hooks when closed, stops in said cabinet spaced from said hooks on the flanges, above the door when closed, to prevent the removal of the door from the hooks on the cabinet, and fixedly positioned interlocking means on the cabinet and on the door adjacent the edge opposite the hooks on the door, said stops being spaced from the nearest part of the interlocking means on the cabinet a distance at least equal to the dimension of the door when extended therewith, whereby bodily sliding movement of the door first from, then toward the interlocking means on the cabinet engages said interlocking means to retain the door closed, said drawer having means thereon contacting the door when closed and preventing bodily movement of the door when the interlocking means are engaged, and when the drawer is open said means being inoperative to retain the door from movement when slid from the closed door.

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