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(54) TOOL ORGANIZER

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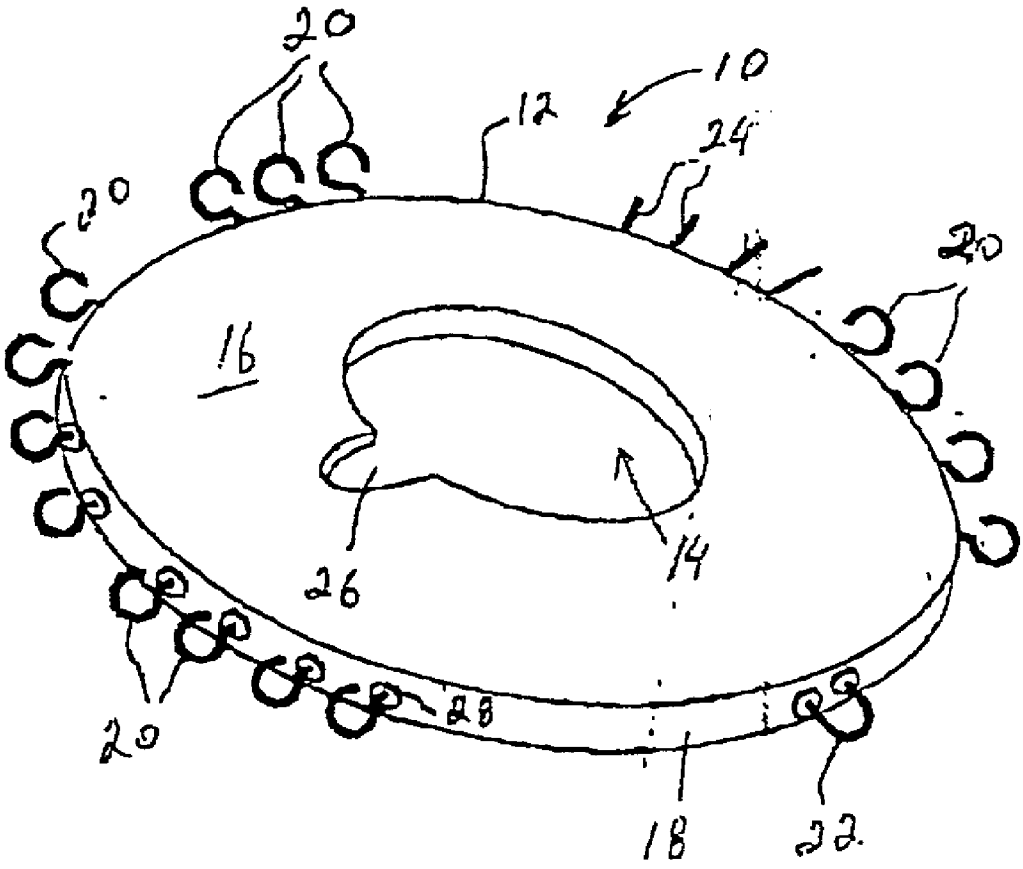
(57) ABSTRACT

A tool organizer for placing on a structure and supporting a variety of handheld tools and other small objects. The organizer has a narrow body with a central opening to fit over the supporting structure. A plurality of tool supporting members are detachably secured on a continuous side wall of the body; the tool supporting members having hook-shaped, loop-shaped and other suitable configurations. The tool organizer is particularly useful for placing on a lid of an oil evacuation drum and allowing suspension of pliers, wrenches and other similar tools thereon.



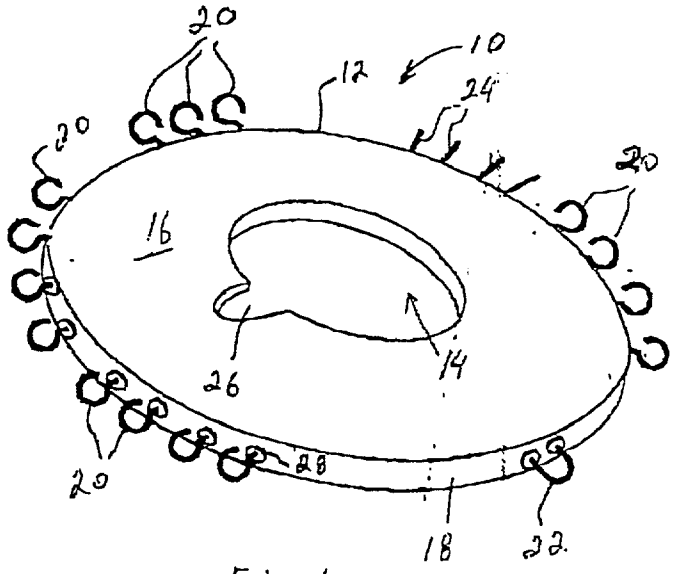


Fig. 1

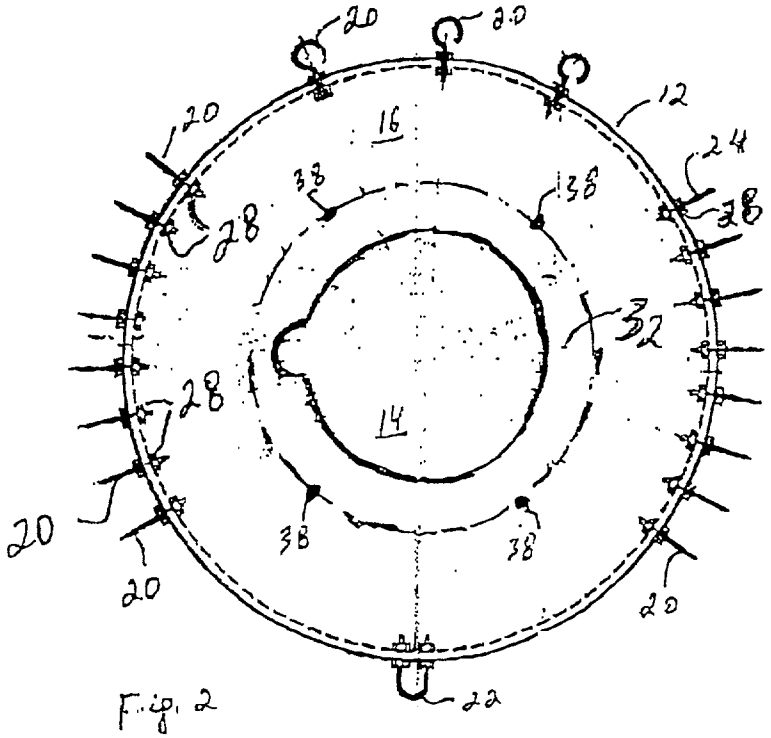


Fig. 2

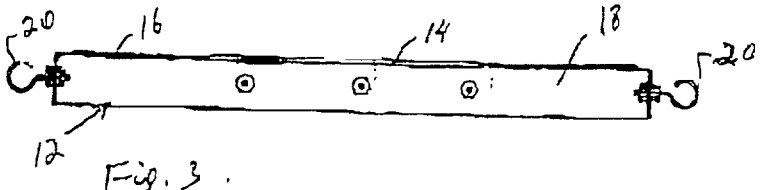


Fig. 3.

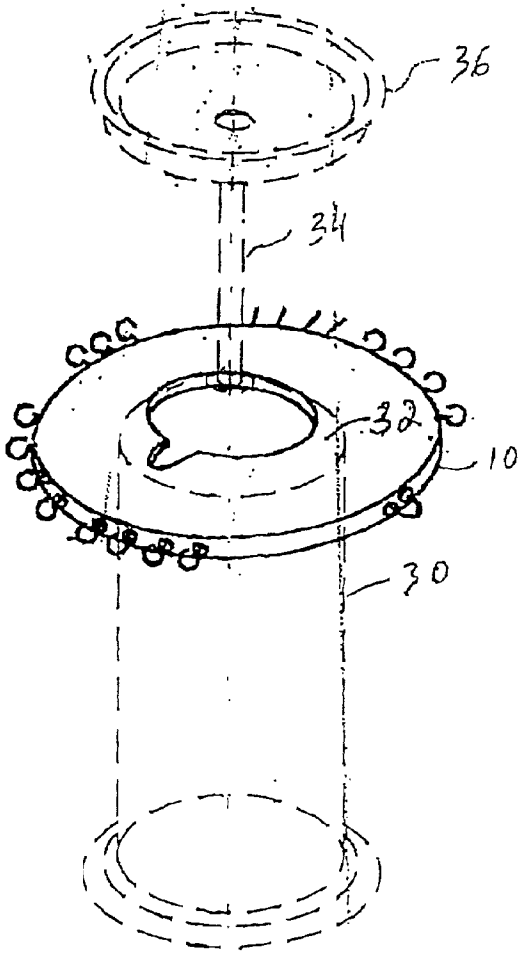


Fig. 4

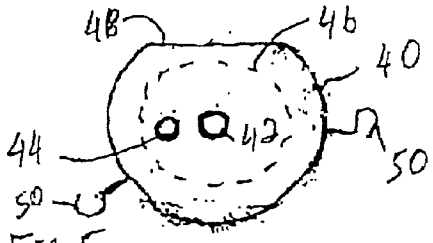


Fig. 5

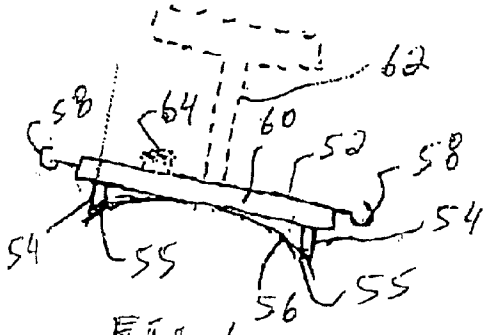


Fig. 6

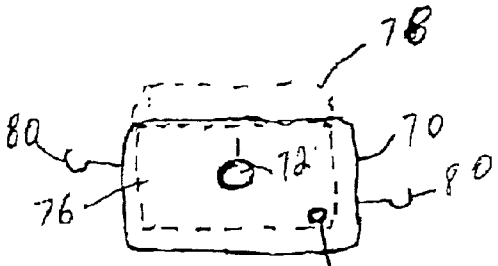


Fig. 7

TOOL ORGANIZER

BACKGROUND OF THE INVENTION

[0001] This invention relates to workshop equipment, and more particularly to a device for retaining handheld tools in an easily accessible manner.

[0002] Mechanics and home repair people use a multitude of tools during routine car maintenance. For instance, during an oil change, a user may need to have easy access to wrenches, pliers, grease guns, and other similar tools to complete the job. Many people use toolboxes for carrying the tools around the job site and to place them in an easily reachable place. Other people simply scatter the tools around a workshop so that they pick up the tools as needed.

[0003] Conventionally, the user selects several tools that he/she knows will be needed for the job and places them nearby, sometimes on the ground next to the automobile being repaired or worked on. In many instances, however, especially with jobs involving repairs and maintenance of different model cars, the precise type of tool needed is difficult to anticipate. Still, it is of a convenience to the user to have these tools available in an organized manner next to the job location.

[0004] The present invention contemplates provisions of a tool organizer that can be particularly useful in automobile repair and maintenance shops. It is conventional to use an oil drum for collection of used oil. The existing oil drain buckets usually have a top lid with an opening into which an oil drain conduit is inserted. A funnel may be connected to the free end of the hose to collect evacuated oil from engines, crankcases, transmissions, and differentials. Sometimes, a strainer is included into the drain bowl to strain off items that may be evacuated and prevent their entrance into the oil collection drum. The drain tube is usually secured in the center opening with wrenches or other similar mechanisms. The drum lid or cover can be outwardly convex, partially convex, straight, and can have secondary openings to accommodate drain holes for emptying the drum into a larger container.

[0005] The present invention contemplates provision of a tool organizer that can be used with different types of evacuation oil drums and buckets while retaining handheld tools in a location easily accessible by a mechanic.

SUMMARY OF THE INVENTION

[0006] It is, therefore, an object of the present invention to provide a tool organizer specifically adapted for retaining handheld tools in a workshop.

[0007] It is another object of the present invention to provide a tool organizer that can be used by mechanics and other individuals engaged in the maintenance of cars and other vehicles.

[0008] It is a further object of the present invention to provide a tool organizer that can be positioned on a lid of a conventional oil evacuation drum and be retained there in a secure, easily detachable manner.

[0009] These and other objects of the present invention are achieved through a provision of a tool organizer that has a flat tool body carrying a plurality of support members for suspending various objects therefrom. The body has dimensions greater than a corresponding structure, such a lid of an oil evacuation drum. The support members are detachably secured on a continuous sidewall of the body. The support members may be shaped as hooks, loops, rods, etc.

[0010] A central opening formed in the body allows the body to fit over conduit connections on the lid of an oil evacuation drum. A cutout next to the central opening or a secondary opening adjacent the central opening allow accommodating secondary drain hoses secured to the container lid.

[0011] The body may be ring-shaped, rectangular-shaped, etc. to fit various types of container lids. Some of the containers may have outwardly convex lids. To accommodate this type of a lid, the present invention provides for supporting legs extending downwardly from the body. The lower portions of the legs are shaped to fit the curvature of the lid.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] Reference will now be made to the drawings, wherein like parts are designed by like numerals, and wherein **FIG. 1** is a perspective view of the tool organizer in accordance with the present invention.

[0013] **FIG. 2** is a top plan view of the tool organizer of the present invention.

[0014] **FIG. 3** is a side view of the tool organizer.

[0015] **FIG. 4** is a perspective view of the tool organizer of the present invention as placed on a conventional evacuation oil drum.

[0016] **FIG. 5** is a detail view of the tool organizer positioned on an evacuation oil drum that is provided with a handle.

[0017] **FIG. 6** is a detail side view of the tool organizer provided with supporting legs for positioning on the drum with an outwardly convex lid.

[0018] **FIG. 7** is a detail view of a rectangular-shaped tool organizer for accommodating a different type of evacuation oil drums.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIEMENT

[0019] Referring now to the drawings in more detail, numeral **10** designates the tool organizer in accordance with the present invention. The tool organizer **10** has a flat body **12** with a center opening **14**. The body **12** has a top surface **16** and a continuous vertical sidewall **18**. The sidewall **18** is wide enough to allow securing of various tool-supporting members thereon.

[0020] In the embodiment shown in **FIG. 1, a** plurality of hook-shaped support members **20** are detachably secured on the body **12**. The hooks **20** can be of any desired size suitable for suspending of pliers, wrenches, and oil filter wrenches. Depending on the demands of the job, the hook-shaped support members **20** can be two or more in number and support American, as well as metric calibrated tools.

[0021] One or more loop-shaped support members **22** are detachably secured on the wall **18**. It is envisioned that the handle of a grease gun can be slipped through the loop and

retain a grease gun on the body **12** until needed by the mechanic. Other types of securing members, for instance straight rods **24** may be also provided on the tool organizer **10** and be used for suspending various types of tools provided with an opening in the handle.

[**0022**] The tool supporting members **20**, **22**, and **24** are secured to the tool body **12** by forcing a portion of the support members **20**, **22**, and **24** into the sidewall **18** (See **FIG. 2**). The screws that form parts of the support members **20**, **22**, and **24** are driven into the wall **18** to extend therethrough and be retained thereon by nuts **26**, and washers **28**.

[**0023**] In an alternative, if the body **12** is made as a solid body, the securing members **20**, **22**, and **24** can be mounted on the wall **18** by forcing the sharpened screw ends into the wall **18** and retaining them on the body **12** in a detachable, interchangeable manner. The support members **20**, **22** and **24** may be oriented to extend at an angle to the top surface **16**, if desired for convenience of the user.

[**0024**] Some conventional evacuation oil drums are provided with lids that have a peripheral flat portion and an outwardly convex center portion. The evacuation tubes and other conduit connections are usually attached to the lid. The opening **14** is designed to fit over the lid portion that has a partially outwardly convex lid fitted with an evacuation tube. The size and shape of the opening **14** can be easily modified depending on the type of drum with which the tool organizer **10** will work.

[**0025**] A cutout **26** is provided in the body **12**. The cutout **26** communicates with the opening **14**. The cutout **26** allows the tool organizer **10** to accommodate a drain hose, if provided on the drum lid. The size of the opening **14** is large enough to fit snugly around the partially outwardly convex portion of the drum lid.

[**0026**] **FIG. 4** illustrates positioning of the tool organizer **10** on a conventional oil evacuation drum **30**. As shown in the drawing, the oil drum **30** is provided with a top lid **32** that carries a primary oil evacuation conduit **34** with a funnel **36**. The tool organizer **10** is placed over the lid **32** before the funnel **36** is connected with the tube **34** to rest on top of the lid **32** and to extend outwardly from the periphery of the lid **32**. The tool supporting members **20**, **22** and **24** extend farther from the drum body **30** than the lid **32**.

[**0027**] Generally, no attachment means are necessary for the tool organizer pin to stay in place on top of the lid **32**. However, in some instances, especially when particularly heavy or bulky tools must be used for the job, the body **12** may become unbalanced and shift its position in relation to the drum **30**. To prevent disengagement or misalignment of the body **12** in relation to the drum **10**, several attachment screws **38** may be provided. The attachment screws **38** engage the outer rim of the drum **30** and ensure that any possible imbalance of the body **12** does not lead to overturning of the tool organizer **10**. **FIG. 2** shows four such attachment screws **38**, which can be as simple as sheet metal screws, inserted through the body **12** to keep the tool organizer in place.

[**0028**] The top surface **16**, being flat, offers additional surface for storing rags, screws, and other small items that are used during the job. The body of the tool organizer **12** can be constructed from fiberglass, wood, and other materials that are not easily breakable and can withstand the physical stresses associated with suspension of numerous tools from the hooks and other support members. The support members **20**, **22**, and **24** can be made from lightweight material, for instance aluminum covered with a rubberized substance to prevent scratching of the cars and other vehicles being worked on. Of course, the drum **30** can be a drum adapted to collect evacuated oil, transmission fluid, and other changeable liquids.

[**0029**] The tool organizer **10** can be easily adapted to accommodate different types of containers. One such modification is shown in **FIG. 5**, wherein a tool organizer **40** is provided with a small center opening **42** and a secondary opening **44** to accommodate a drain hose that is placed away from the center of a lid **46**. The sidewall of the tool organizer **40** has a straight cut portion **48** to accommodate a handle that is provided on some of the drums to make them easier in transportation. A plurality of tool supporting members **50** are provided on the tool organizer **40**, although only two of such members are shown in **FIG. 5**.

[**0030**] **FIG. 6** illustrates another modification of the tool organizer to accommodate outwardly convex lids that are used on some oil evacuation drums. In this modification, a tool organizer **52** is provided with supporting legs **54**, which can be two or more in number to level position of the tool organizer **52** on top of a lid **56**. The lower portions **55** of the supporting legs **54** are shaped to fit over the curved surface of the lid, as shown in **FIG. 6**.

[**0031**] A plurality of tool supporting members **58** are secured on the sidewall **60** of the organizer **52** to allow suspension of pliers, wrenches and other tools on the tool organizer **52**. A center opening (not shown) is made in the body **60** to accommodate an oil evacuation tube **62**, and a second opening (not shown) is made in the body **60** to accommodate a drain conduit **64**.

[**0032**] **FIG. 7** illustrates the use of a tool organizer with still other types of drum lids. In this embodiment, a tool organizer **70** has a generally rectangular configuration with a center opening **72** and a secondary opening **74** formed a distance from the center opening **72**. This type of tool organizer can be used for positioning on a square lid **76** that is provided with a handle **78** for moving the drum about the workshop. A plurality of tool supporting members **80** are provided on the tool organizer **70** to allow suspension of the handheld tools therefrom.

[**0033**] The tool organizer of the present invention can be easily modified to accommodate various types of containers and lids. The tool organizer can be easily disengaged or detached from the lid and placed on another oil evacuation drum. The use of the securing screws **38** and of the legs **54** is optional.

[**0034**] It is envisioned that the tool organizer of the present invention be made from a number of non-corrosive materials that can be cleaned, if desired, of grease that will tend to accumulate on its surface. The size of the tool organizer can be easily adapted to accommodate the size of the lid and the peripheral dimensions of the drum. The coating placed on the outwardly extending Hi hooks and rods protects the cars from scratches in case the oil evacuation drum, which is usually positioned on a rolling caddy, is pushed and the supporting members come into contact with the car surface.

[0035] The tool organizer can be placed on other structures, pedestals, etc. to allow suspension of a variety of small tools and objects therefrom. It is envisioned that the central opening made in the organizer body may be used for centering the body on the structure with the help of a peg, rod or bolt, if desired.

[0036] Many other changes and modifications can be made in the design of the present invention without departing from the spirit thereof. I, therefore, pray that my rights to the present invention be limited only by the scope of the appended claims.

I claim:

1. A tool organizer, comprising:

a generally flat body having a central opening therein; and

a plurality of support members secured on a sidewall of the body for holding a variety of objects suspendable thereon.

2. The device of claim 1, wherein a cutout is formed in said tool body adjacent said central opening for accommodating a part of a structure, on which said body is detachably positioned.

3. The device of claim 1, further comprising a secondary opening formed in said body adjacent said central opening for accommodating a part of a structure, on which said body is detachably positioned.

4. The device of claim 1, further comprising a plurality of legs extending downwardly from a bottom surface of said body for leveling position of said body on an outwardly convex structure.

5. The device of claim 4, wherein said legs have a lower portion shaped to accommodate said outwardly convex structure.

6. The device of claim 1, wherein said support members comprise a plurality of hook-shaped members and loop-shaped members.

7. The device of claim 1, wherein said support members are detachably secured on said body.

8. The device of claim 1, wherein said body has a generally ring-shaped configuration.

9. The device of claim 1, wherein said body has a generally rectangular configuration.

10. An organizer for hand-held tools suitable for positioning on a lid of a container, said tool organizer comprising:

a generally flat body having a central opening therein to accommodate a primary conduit secured to a lid of the container, said body having a continuous wall extending perpendicularly to an upper surface of said body; and

a plurality of support members detachably secured on said wall and extending outwardly from said body.

11. The device of claim 10, wherein said body has a peripheral edge, said edge extending outwardly from an outer periphery of said lid.

12. The device of claim 10, wherein said support members comprise a plurality of hook-shaped and loop-shaped members.

13. The device of claim 10, wherein said body is provided with a secondary opening communicating with the central opening for accommodating a secondary conduit secured on said lid.

14. The device of claim 10, wherein said body is provided with a secondary opening formed a distance from the central opening to accommodate a secondary conduit secured on said lid.

15. The device of claim 10, wherein said body is provided with downwardly extending legs to level said body on an outwardly convex lid, said legs having a lower portion shaped to fit on an upper surface of said lid.

16. The device of claim 10, wherein said body has a ring-shaped configuration.

17. The device of claim 10, wherein said body has a generally rectangular configuration.

18. An organizer for hand-held tools suitable for positioning on a lid of an evacuation oil drum, said tool organizer comprising:

a generally flat body having a central opening therein to accommodate a primary conduit secured to the lid, said body having a continuos wall extending perpendicularly to an upper surface of said body; and

a plurality of support members detachably secured on said wall and extending outwardly from said body, said support members having hook-shaped and loop-shaped configurations.

19. The device of claim 18, further comprising a secondary opening formed in said body to accommodate a secondary conduit secured on said lid.

20. The device of claim 18, wherein said body is provided with downwardly extending legs to level said body on an outwardly convex lid, said legs having a lower portion shaped to fit on an upper surface of said lid.

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