

[54] DRAINAGE COLLECTION CONTAINER

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229/34 HW

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220/9 D, 9 F, 1 C; 184/106; 150/0.5; 180/69.1

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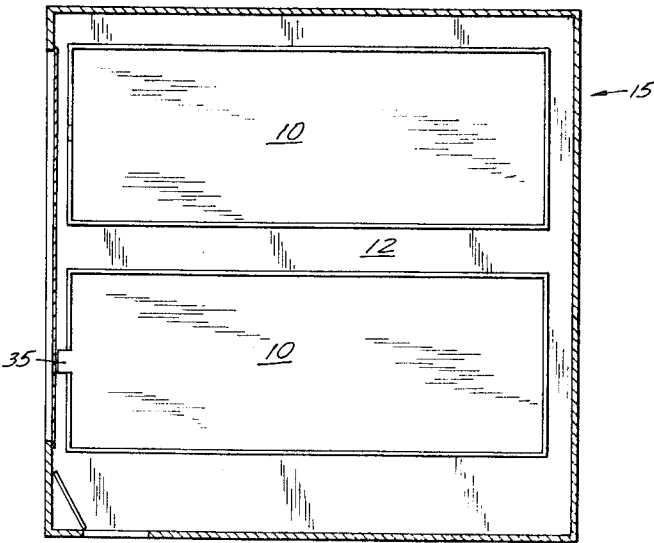
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[57] ABSTRACT

A drainage collection container formed by a sheet of foldable material having flap extensions along the side edges thereof and dimensions greater than the dimensions of a vehicle with which it is to be used. The flap extensions wrap around elongated strips of resilient material to form curbs and seal the container along the sides and corners with means in one of the sides for forming a discharge spout therefrom. The container is adapted to be driven over by the vehicle and the sides are made resilient to compress as the vehicle passes over the same and return to the container shape and collect drainage from the vehicle when positioned thereon.

7 Claims, 7 Drawing Figures



SHEET 1 OF 2

FIG. 1

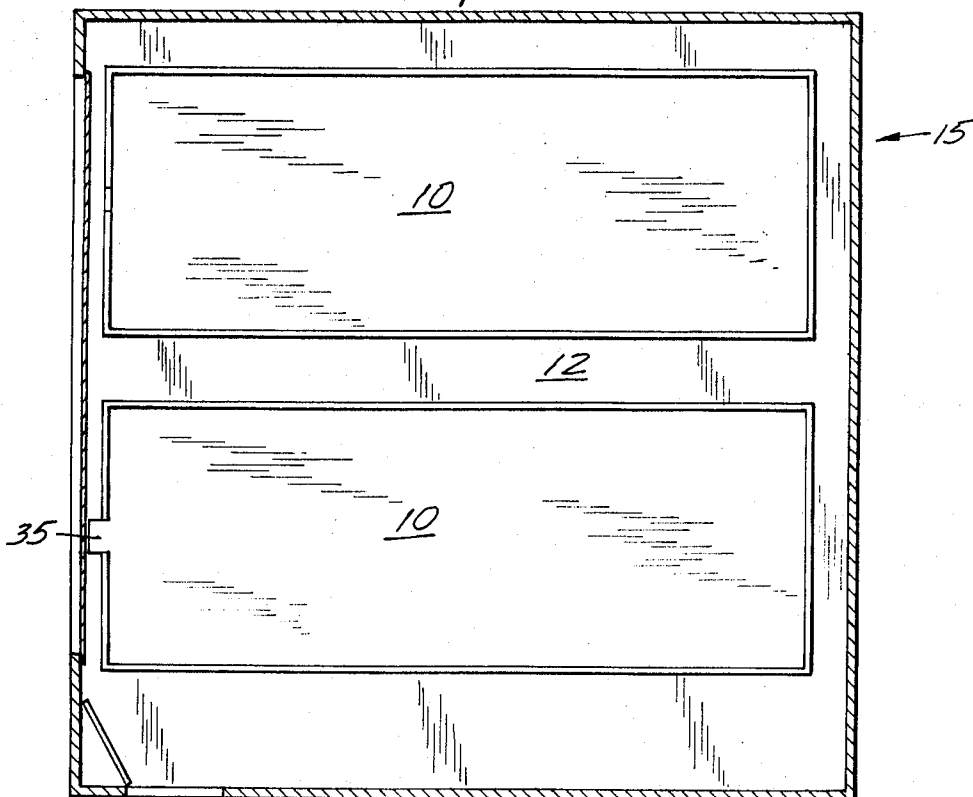
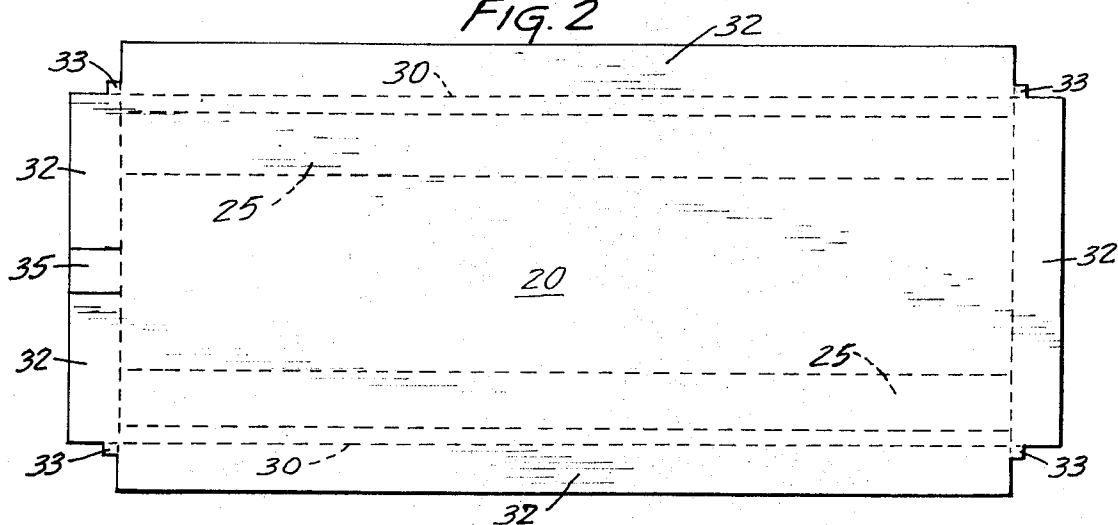


FIG. 2



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FIG. 3

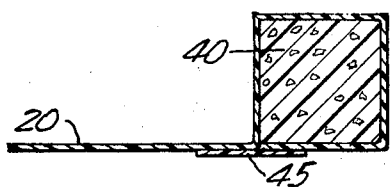


FIG. 4

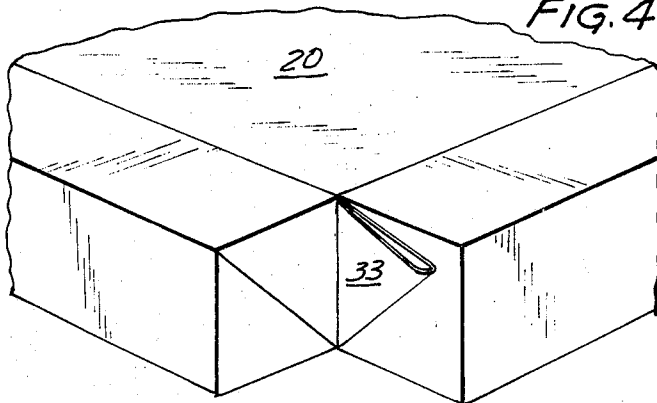


FIG. 5

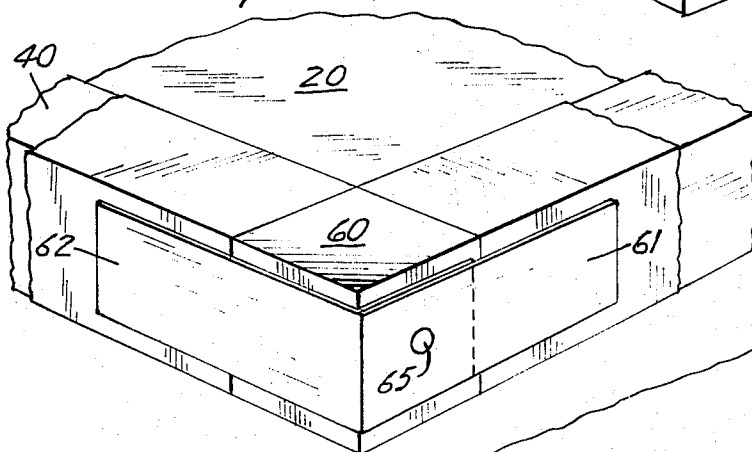


FIG. 6

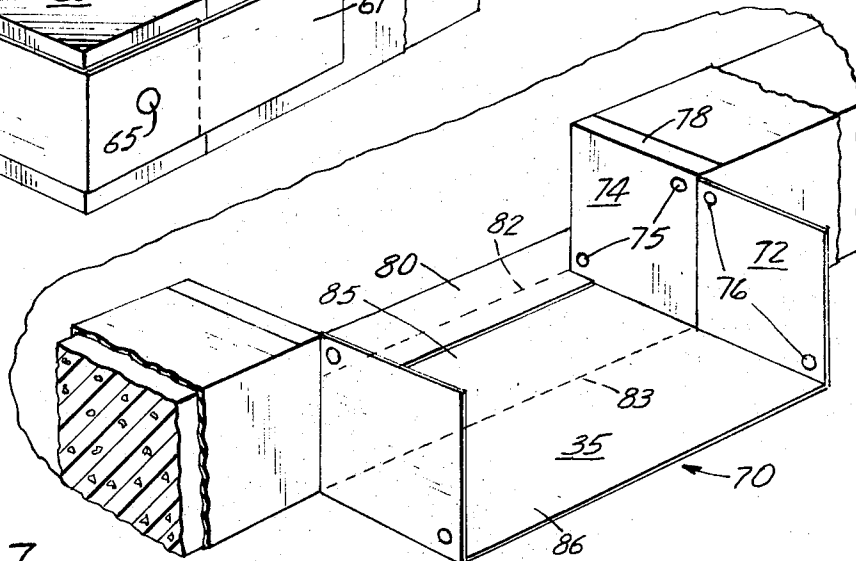
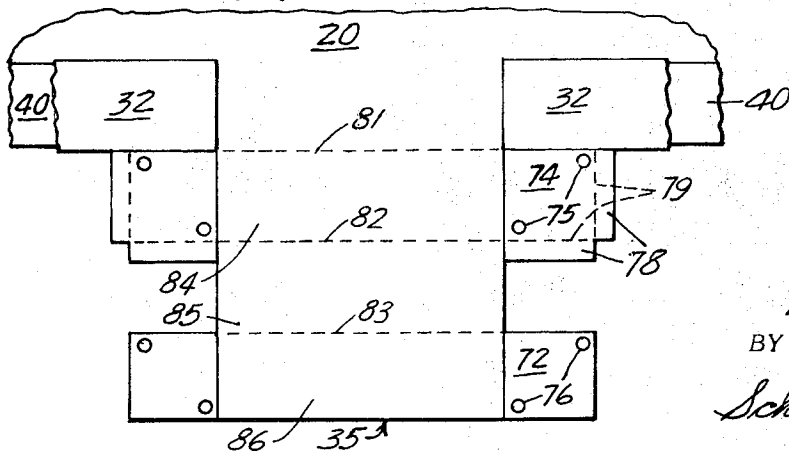


FIG. 7



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DRAINAGE COLLECTION CONTAINER

Our invention relates to drip collecting devices and more particularly to an improved and readily constructable drainage collection container adapted to be used with vehicles to collect all types of drainage therefrom.

Drip collecting containers or devices, oil absorbent pads and mats and the like which are placed beneath a vehicle for the purpose of catching and retaining oil drippings therefrom are known and in use. These prior structures take a variety of forms and are effective only in the collection of oil or other drainage from certain portions beneath the vehicle. Their efficiency requires accuracy in locating the vehicle with respect to the same and they in no way are effective to collect and retain debris and other drainage from the under side of a vehicle or that brought in by the wheels of the vehicle. This problem is particularly applicable in household garages and under environmental conditions in which snow, water, mud, dirt, salt and other chemicals adhere to the under surface of a vehicle and to the side surfaces thereof and drop from the vehicle or drain from the vehicle during periods of nonuse. In the conventional household garage, such conditions present an accumulation of dirt and grease on a garage floor which will be tracked into the home by the occupants thereof passing through the garage or place of storage. Such debris on a garage floor is further spread by vehicle movement and drainage often collects on uneven spots on a floor remote from a drain to produce further nuisance for the householder.

The present invention is directed to an improved drip collecting apparatus or structure in the form of a drip collection container which may be positioned on the floor of a garage to collect all types of drainage from a vehicle when it is at rest. The improved container is of such dimension and includes resilient curbs so that it will cover not only limited areas beneath the vehicle but the entire area surrounding a vehicle to ensure collection of all drainage and the retention of the same. The container is of such size that a vehicle may be driven over a curb thereof and located thereon without requiring extreme accuracy or positioning to ensure complete collection of drainage. The walls of the same will ensure that the drainage will be retained within a container such that it may be removed at a time convenient to the user and will prevent the spread of the same or tracking of the same into the household. In addition, the improved container is constructed from a flexible or foldable sheet of material with the curbs being formed through flap extensions of the same to define a curbed or raised container in which the edges or curbs thereof are deformable to permit passage of a vehicle over the same without destroying the shape of the structure.

Therefore it is the principal object of this invention to provide an improved drainage collection container which will collect water, snow, mud, salt and any other type of drainage beneath a vehicle when the same is parked and not in use.

Another object of this invention is to provide an improved container of this type which may be readily constructed and positioned on a garage floor to keep the floor clear of such drainage. A further object of this invention is to provide an improved drainage collection container which allows an easy method of removal of vehicle drainage from a garage.

Another object of this invention is to provide in an improved drainage collection container a simplified arrangement for allowing a vehicle to pass over the same without destroying the same or affecting its operation in drainage collection.

A still further object of this invention is to provide a container of this type which may be readily constructed by the user and installed for usage.

These and other objects of this invention will become apparent from the reading of the attached description together with the drawings wherein:

FIG. 1 is a schematic view of a garage floor with a pair of the improved drainage collection containers in place thereon,

FIG. 2 is a plan view of the sheet of material forming a portion of the drainage collection container.

FIG. 3 is a sectional view of a portion of the drainage collection container showing the curb,

FIG. 4 is a fragmentary perspective view of a portion of the improved drainage collection container showing construction of the same,

FIG. 5 is a perspective view similar to FIG. 4 of a portion of the container showing the corner construction of the same,

FIG. 6 is a perspective view of a portion of the container showing a drain flap assembly for the same, and

FIG. 7 is a plan view of a portion of the drain assembly showing the construction of the same.

Our invention in the drainage collection container provides a simplified structure which a householder may construct in his garage and position on the floor of the same for the purpose of collecting debris in drainage from his vehicle when parked. This improved container is presently being manufactured under the trademark "Garage Valet." As an example, FIG. 1 shows a floor plan view by way of schematic drawing of a garage floor with containers, indicated generally at 10, as positioned on the floor surface 12 of a garage, indicated generally at 15. This container is made of a flexible and foldable material and the sheet of material, indicated at 20 in FIG. 2, shows the form of a portion of the container before assembly and after it has been unfolded from packaging. This sheet may be made from a heavy vinyl or plastic material to which has been added by way of coating any suitable fire resistant and chemical retardant coating. As such it should be water retentive and resistant to oils, salts, etc., and have flame retardant or fire proof quality. If desired, this base retainer sheet or form may be reinforced with additional material such as nylon or fiberglass cloth and doped with a plastic and used as a reinforcement in the normal drive track area. The dotted line strips, indicated at 25 in FIG. 2, could be applied to the sheet at the time of installation or at manufacture and would be particularly applicable in environments where studded snow tires are in use as a reinforcement for the base material. Similarly, the entire structure could be made of the fiberglass cloth with suitable sealing materials added thereto in such dimensions as to be capable of rolling or folding. This base sheet forms the base and sides of the container and the dotted lines indicated at 30 outline the resultant base area after the flap extension portions 32 have been folded over the curb material and attached thereto, as will be hereinafter defined.

As will be seen in FIGS. 3 and 4, curbs are constructed to form the side walls of the container and suitable elongated strips of curb material, indicated at 40, are included with the packaging to form the curbs with the installation. This curb material may be foamed plastic or other resilient material capable of being deformed or crushed by vehicle tires passing over the same and returning to the normal cross section or memory of the material when released. Thus as will be seen in FIGS. 3 and 4, the curb material which are elongated strips generally square or rectangular in cross section will have the flap extensions wrapped around the same and the flap extensions 32 are of such dimension as to cover the four sides of the curb material and be capable of being secured to the center or base portion of the material by suitable bonding strips, indicated generally at 45 in FIG. 3. The actual curb material will be cut in appropriate length sections for packaging and will be installed by placing such sections end-to-end sufficient to cover the length of a side or width of a side of the resultant container with the flap extensions wrapped around the same to snugly fit over the curb material and be connected to the base on the under surface thereof by the retaining strips which have suitable adhesive on a surface thereof sufficient to secure the flap extensions around the curb material to form the curbs or sides of the container. Such sealing may also be effected by increasing slightly the width dimension of the flap extensions such as to overlap the bottom and the application of glue or heat may effect the mechanical bond between the flap extension and the base or the under surface of the material to provide the similar construction.

As will be seen in FIG. 2, small wing flap portions 33 of the flap extensions are included at the corners of the container which pieces will provide a raised surface consistent with the height or walls of the curbs and will be folded over, as in-

licated in FIG. 4, during the construction of the container and to be retained in the triangular fold position by a corner block or curb filler which will be best seen in FIG. 5 at 60. The latter may be a piece of the same material, which will fit in the areas between the ends of the curbs to complete the rectangular form. Suitable tabs 61 and 62 attached to the vinyl covering of the curbs or plastic covering of the curbs by suitable bonding adhesive and having a snap coupling part 65 at the extremity of the same will complete the corner when assembled to retain the corner block 60 in position and hold the wing flaps 33 in the folded position to insure leak-proof corners.

In addition to the corner construction, a main flap assembly is included in one of the side walls or curbs and is formed from the flap portion 35 indicated in FIG. 2. The latter is obtained by appropriate slits in the flap extensions 32 on one side of the sheet of material. The flap assembly, indicated generally at 70 in FIG. 6, provides a drain spout by means of which material and liquids may be removed from the container. Added to the flap portion 35, as will be seen in FIG. 7, are transversely extending flap members 72, 74 of reinforcing material which are attached at the end of the flap extension and intermediate the extent of the same parallel to one another. The flap portion is divided into three sections 84, 85 and 86 by three fold lines indicated at 81, 82 and 83. When the flap portion 35 is folded along the fold line 81 the reinforcing flap member 74 attached to section 84 of the flap portion 35 will be disposed in line with the curb and will be covered by the next outboard flap or fold section. The flap member or the extremities of the same will then be positioned against the curb material to seal the same for the drain flap assembly and the fold line 83 will be aligned with the outer edge of the curb. These transversely extending flap portions or members 72, 74 may be added at the time of manufacture of the sheet or may be added at the time of installation by appropriate adhesive to the flap portion 35. The portions of the flap member 74 which extend beyond the edges of the flap portion 35 have snap fastener parts, indicated at 75, positioned therein with co-operating snap parts 76 being positioned in the extremities the flap member 72. In addition the flap member 74 has additional extensions formed integral therewith, indicated at 78, and defined by score lines 79 which when the first fold along line 81 of the flap portion 35 is made will be folded in line with the curb to be in a position to be folded over the top and inner surface of the curb material sealing the same. Suitable adhesive applied to these portions of the flaps will permit the same to bond or adhere to the surface of the flap extension 32 of the curbs adjacent the drain assembly. The resultant drain assembly, will be capable of being opened, as shown in FIG. 6 or closed along the fold line 83 by pivoting the end fold section 86 with the member 72 thereon vertical (see FIG. 1) to align with the outside wall of the curbs such that the snaps 76 in flap member 72 will align with the snap fastener parts 75 in the flap member 74 to hold the same in assembled relationship and provide a closed wall to prevent drainage from escaping when the container is in normal usage. In addition, a suitable strip of sealed material, indicated at 80, will be applied over the folded section 85 of the flap portion 35 at the fold line 82 to hold the same in position against the floor of the container and aid in defining the entrance to the same.

The improved drainage collection container or "Garage Valet" may be readily constructed by the user or home owner in his own garage and when positioned on the floor thereof may be driven over and so as to be positioned under a vehicle parked in the garage to collect debris and drainage therefrom. This will confine such drainage and debris to a particular area of the garage floor beneath the vehicle eliminating the problem of water and other drainage on the garage floor. By such confinement, the problems of uneven floor, improperly located drains and dirt being tracked from the garage area are eliminated. The home owner may then clean the container at given intervals and at his own option while maintaining a clean and dirt free foot traffic area around the vehicle within the garage site. More importantly, the entire drainage from the

vehicle will be collected and the container will not be destroyed by vehicle traffic over the same.

Therefore in considering this invention it should be remembered that the present disclosure is intended to be illustrative only and the scope of the invention should be determined by the appended claims.

What is claimed is:

1. A drainage collection container for a vehicle adapted to be positioned on a garage floor comprising, a sheet of foldable resilient material generally rectangular in outline and having length and width dimensions which are greater than the length and width dimensions of a vehicle with which it is to be used, said sheet having flap extensions at the side edges thereof and connected thereto, curb members for each side being made of a resilient material and having a rectangular cross section, means sealing the flap extensions of each side around the curb members associated therewith to provide a raised curb surrounding the sheet of material and sealed against drainage, said curb members being deformable and returning to their normal cross section to permit passage of a vehicle over the curbs of a container while retaining the shape and sealing characteristics of the same, corner block means positioned at the junction of each of the curbs on the sides and including means for retaining the same therein, and including means in one of said raised curbs on one of said sides for selectively removing a portion of the raised curb to form a drain through said raised curb of the container.

2. The drainage collection container of claim 1 in which the corner block means includes blocks of the resilient material held in position against the curbs by strips fastened to the flap extensions and having snap means mounted thereon and co-operating to fit around the corner block means.

3. The drainage collection container of claim 1 in which the means sealing the flap extension around the curb members includes sealing strips with suitable adhesive thereon applied against the edges of the flap extensions and the sheet of foldable material.

4. The drainage collection container of claim 1 in which the sheet of foldable material has at least a surface exposed to the interior of the container and impervious to attack by oils, chemicals and fire.

5. The drainage collection container of claim 1 in which the sheet of foldable material and the flap extensions thereof are formed integral and of the same material.

6. The drainage collection container of claim 1 in which the sheet and flap extensions are formed of a plastic material and the curb members are formed of a foamed plastic material.

7. A drainage collection container for a vehicle adapted to be positioned on a garage floor comprising, a sheet of foldable resilient material generally rectangular in outline and having length and width dimensions which are greater than the length and width dimensions of a vehicle with which it is to be used, said sheet having flap extensions at the side edges thereof and connected thereto, curb members for each side being made of a resilient material and having a rectangular cross section, means sealing the flap extensions of each side around the curb members associated therewith to provide a raised curb surrounding the sheet of material and sealed against drainage, said curb members being deformable and returning to their normal cross section to permit passage of a vehicle over the curbs of a container while retaining the shape and sealing characteristics of the same, corner block means positioned at the junction of each of the curbs on the sides and including means for retaining the same therein, and including means in one of said raised curbs on one of said sides for selectively removing a portion of the raised curb to form a drain through said raised curb of the container, said means in one of said raised curbs being a flap extension on one of said sides which is split intermediate along its extent to separate it from the remaining portions of the flap extension and including additional flap means connected to the split portion of the flap extension and extending transversely to the extent thereof with portions overlying the same, one of said transverse flap exten-

sions being intermediate the extent of the split portion and one being located at the extremity thereof with said overlying portions having fastener connections extending therethrough and adapted to co-operate with one another when said split portion is folded on itself to define a removable side wall portion 5 of the curb for said one of said sides.

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