Aug. 4, 1964 J. A. MacDONNELL 3,143,367

LIQUID DISPENSING APPARATUS HAVING IMPROVED DELIVERY HOSE RETRIEVER MEANS

Filed June 11, 1962

Fig. 1.

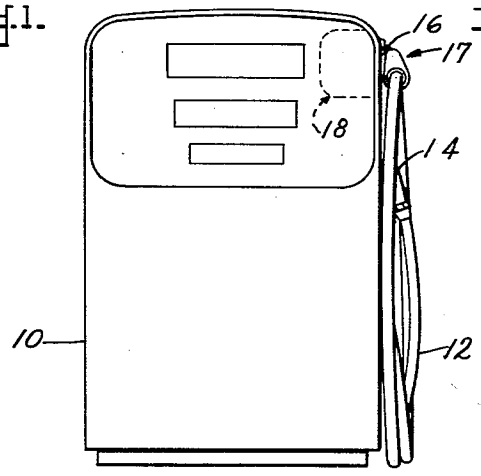


Fig. 2.

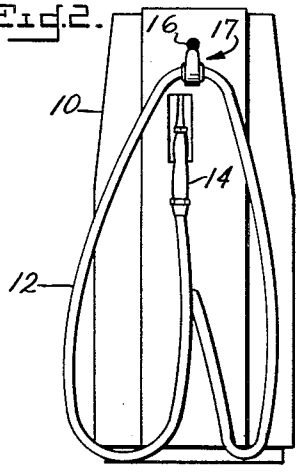


Fig. 3.

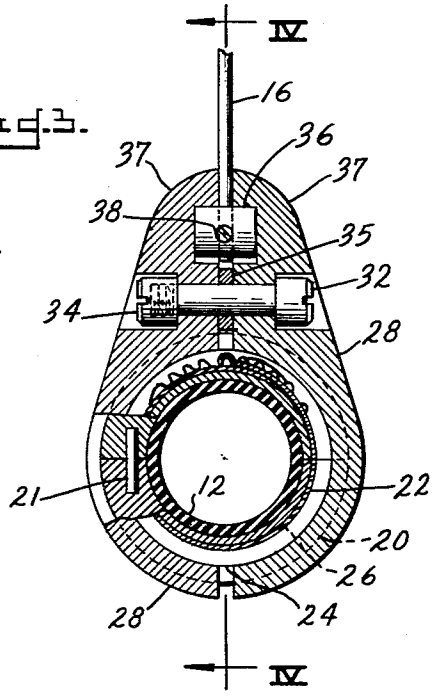


Fig. 4.

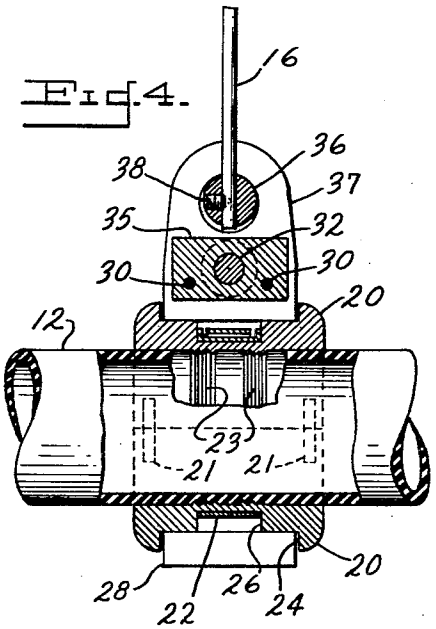
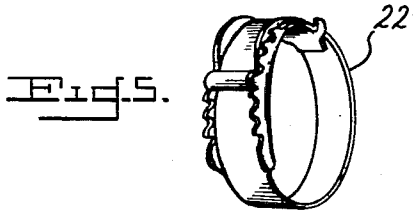


Fig. 5.



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3,143,367

LIQUID DISPENSING APPARATUS HAVING IMPROVED DELIVERY HOSE RETRIEVER MEANS

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The present invention relates to improvements in retriever mechanisms for the delivery hoses of liquid dispensing units. More specifically, the invention relates to an improvement in the manner of attaching a cable to the delivery hose where the cable yieldingly pulls the delivery hose into an inverted storage loop, as shown in U.S. Patent No. 2,639,944.

An object of the invention is to minimize, if not eliminate, the possibility of the delivery hose and/or the retriever cable, attached thereto, becoming twisted.

Another object of the invention is to minimize, if not eliminate, the possibility of the retriever cable becoming wound around the delivery hose.

These ends are attained by securing a member to the delivery hose, mounting bracket means on said member for rotation about the hose axis and pivotally connecting the retriever cable to the bracket means for movement about an axis transverse to the hose axis.

The above and other related objects and features of the invention will be apparent from a reading of the following description of the disclosure found in the accompanying drawing and the novelty thereof pointed out in the appended claims.

In the drawing:

FIG. 1 is a front elevation of a liquid dispensing unit of the type referred to;

FIG. 2 is an end elevation of this dispensing unit;

FIG. 3 is a cross section, on an enlarged scale, of cable attaching means seen in FIGS. 1 and 2;

FIG. 4 is a section taken on line IV—IV in FIG. 3; and

FIG. 5 is a perspective view of a clamp element employed herein.

The dispensing unit seen in FIGS. 1 and 2 may be of known design, comprising a housing **10** from which a hose **12** extends for the delivery of gasoline or the like. The inner end of the hose **12** is connected to a liquid delivery line within the housing **10**, while a dispensing nozzle **14** is connected to the outer end of the hose. A hanger (hidden by the nozzle) is provided to support the nozzle **14**, when no delivery is being made. The hose is, at this time, stored in an inverted loop.

The means for so storing the hose **12** comprise a retriever cable **16** attached to the hose by connecting means **17** and a device **18** for yieldingly retracting the cable **16** within the housing **10**. The device may take many forms, as for example that shown in the above-named patent.

The means for attaching the retriever cable **16** to the hose **12** are shown in detail in FIGS. 3 and 4.

A pair of semi-cylindrical shells **20** embrace the hose **12** and are firmly clamped thereon by a strap type clamp **22**. Dowels **21** may be employed to properly align the shells **20**, as indicated in FIG. 3. The clamp **22** is separately shown in FIG. 5 and has a hook at one end which engages teeth formed in its opposite end as seen in the drawing. Circumferential ridges **23** are formed on the inner surfaces of the shells **20** to further prevent slippage between the shells and the hose. A cylindrical groove **24** is compositely formed in the shells **20** concentrically of the axis of the hose. A central recess **26** is formed in the recess **24** so that the clamp **22** will be seated below the level of the groove **24**.

A pair of brackets **28** embrace the shells **20**, and are

journaled in the groove **24**. The brackets **28** are aligned by dowels **30** and held together by bolt **32** and nut **34**. The brackets **28** are freely rotatable on the shells **20** and are spaced apart by a separator **35** to provide clearance for movement of the cable **16** between laterally extending portions **37** of the brackets **28**.

A rod or shaft **36** is telescoped over the outer end of the retriever cable **16** and secured thereto by a set screw **38**. The cable **16** is telescoped into a diametric hole intermediate the length of shaft **36**. The opposite ends of shaft **36** are captured in holes formed in the lateral portions **37** of the brackets **28** to enable the cable **16** to be swung freely relative to these brackets.

With the described arrangement, the end of cable **16** may freely pivot relative to the brackets **28** about an axis normal to that of the hose and the brackets **28** may freely rotate about the hose axis. This arrangament has been found highly effective in keeping the retriever cable **16** from being twisted and possibly wrapping around the hose when the latter is extended for delivery and the cable swivel clamp means **17** is pulled away from the housing.

It will be apparent that when the hose is stored in a loop as in FIG. 2, the act of carrying the nozzle end away from the housing will cause the hose to turn on its axis and twist in the direction of a kinking action. With the arrangement of this invention the end of the cable and the brackets are free to turn. Thus the cable does not twist with the hose and tend to be wrapped around it.

Also, when the hose is returned from an extended delivery position to the storage position, the pin or shaft **36** and bracket members **28** will permit retraction of the cable without an untwisting action to affect return of the hose to its desired looped storage position.

In using conventional clamps for retriever cables, it has been found that if the cable is actually twisted to the extent that it wraps around an extended hose, the simple act of returning the nozzle to its storage position, at the side of the pump housing as in FIG. 2, frequently does not restore the hose to a properly looped condition as shown. The friction between cable and hose resists unwinding and the net result of all the opposing forces may cause a figure **8** or some other peculiar looped formation. The pivots for the bracket members and the cable end as illustrated in this disclosure, allow extension and return of the hose in the desired manner.

Having thus described the invention, what is claimed as novel and desired to be secured by Letters Patent of the United States is:

1. A clamp device for supporting a delivery hose of liquid dispensing pump apparatus and connecting said hose to a retractable cable of hose retriever mechanism, said device comprising a collar and clamping means for securely gripping the collar on the hose, a bracket having members with portions encircling said collar and engaged thereby for rotation of the bracket about the collar and the axis of the hose, said members also having outwardly extending portions and means for fastening said members together, said extending portions being supported in spaced relation with the facing inner walls thereof at right angles to the axis of said collar, said inner walls having opposed recesses therein and a rod pivotally mounted at its ends in said recesses, said rod being provided with means for attaching a cable thereto between said inner walls.

2. A clamp device for supporing a delivery hose of liquid dispensing pump apparatus and connecting said hose to a retractable cable of hose retriever mechanism, said device comprising a pair of cylindrically formed shells providing a collar for embracing the hose between inner wall surfaces thereof, the outer walls of the shells

having circumferentially directed channeled portions defining a cylindrical groove having a centrally recessed portion, a clamping means in said recessed portion for securely gripping said shells on the hose, a pair of bracket members having portions with cylindrically formed walls rotatably engaged by said cylindrical groove and also having outwardly extending portions with facing inner walls, spacer means between said facing walls and a fastener securing said members together for rotation as a unit about said collar and the axis of the hose, said inner walls having opposed recesses therein, and a short rod having its ends pivotally received in said recesses, said rod having means for attaching the end of a cable thereto.

3. A clamp device for supporting a delivery hose of liquid dispensing pump apparatus and connecting said hose to a retractable cable of hose retriever mechanism, said device comprising a pair of semi-cylindrical shells forming a collar for snugly embracing the hose between inner wall surfaces thereof, the outer wall surfaces of the shells having circumferentially directed channeled portions defining a cylindrical groove having a centrally reecessed portion, an adjustable strap band clamp in said

recessed portion for securely gripping said shells on the hose, a pair of opposed bracket members mounted on said collar having portions with semi-cylindrical walls rotatably engaged by said cylindrical groove and also having outwardly extending portions with facing inner planar walls at right angles to the axis of the collar, a spacer plate separating said facing walls and a fastener bolt passing through said walls and plate securing said members together for rotation as a unit about said collar and the axis of the hose, said extensions being spaced for entry therebetween of a retriever cable, said inner walls having opposed recesses therein and a short rod having its ends pivotally received in said recesses and provided centrally of the rod with means for attaching the end of a cable thereto.

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