Disclosed is a funnel including a funnel body extending between a mouth and an exit orifice and a mounting bracket for clamping the funnel body to the pour spout of a safety canister. To adjust the positioning of the funnel body with respect to the pour spout, the funnel body and mounting bracket are pivotally connected. In an embodiment, the funnel body and mounting bracket are made of plastic and pivotally connected together by a living hinge. In another aspect of the invention, to reducing splashing and spillage, the funnel body includes a conical-shaped body and a splash bowl or scupper portion disposed through and extending from the conical-shaped body. The scupper is shaped to direct fluid from the pour spout away from the mouth and toward the orifice exit.
FUNNEL WITH PIVOTABLE MOUNTING BRACKET

FIELD OF THE INVENTION

This invention pertains generally to a device for communicating fluids and more specifically to a funnel for use with a container.

BACKGROUND OF THE INVENTION

To store and transport flammable and other hazardous fluids, a safety canister can be used that includes a can, defining an enclosed storage volume, and a pour spout. An example of such a safety canister is any of a number of Type I safety cans commercially available from Justrite Manufacturing Co. of Mattawan, Ill. To assist in transferring the fluid from the safety canister into another container, a funnel is often employed.

Funnels are well-known devices that have a relatively large mouth into which fluid can be conveniently poured and a relatively smaller exit orifice from which fluid exits. When used with safety canisters, funnels simplify fluid transfer by providing a conveniently-sized target area into which the fluid can be readily poured and a small exit orifice out of which the fluid can flow. The exit orifice can be disposed in a portion of the funnel which is insertable into a container opening for accurate, tidy transfer of the fluid between the storage devices.

Often, to keep the funnel properly aligned with the container opening to prevent spillage, the individual transferring the fluid must manually support the funnel within the container opening. This can be difficult when the safety container is heavy or otherwise not easy to manipulate. Another disadvantage associated with funnels is that they can be misplaced when not in use.

BRIEF SUMMARY OF THE INVENTION

In one embodiment, the invention provides a funnel having a proximate end that includes a rim defining a funnel mouth and a distal end that defines an exit orifice. The exit orifice can have an opening with an area that is smaller than the area of the funnel mouth. To provide sufficient area for pouring fluid therethrough, the mouth can be substantially larger than the exit orifice. The exit orifice can be part of an elongated spout. The spout can be inserted into an opening of a container into which it is desired to transfer fluid. The proximate end can be disposed adjacent the pour spout of a safety canister while the distal end of the funnel can be spaced-apart from the pour spout.

For connecting the funnel to the safety canister, the funnel can include a mounting bracket which can be configured to be securable to the pour spout of a safety canister. To facilitate adjusting the position of the funnel with respect to the safety canister, the mounting bracket can be pivotally movable with respect to a funnel body. With the mounting bracket secured to the pour spout of the safety canister, the funnel body can move pivotally with respect to the mounting bracket about a hinge axis to allow the relative position of the pour spout of the safety canister and the mouth of the funnel body to be adjusted to facilitate dispensing fluid from the safety canister. The pouring of fluid from a safety canister into a target container can be simplified by use of the funnel.

In accordance with another aspect of the invention, the funnel body can include a splash bowl or scupper portion disposed adjacent the mouth to reduce splashing and spilling during pouring. The scupper can form part of the rim, thereby increasing the area of the mouth into which fluid can be poured. The scupper can be shaped to direct fluid toward the exit orifice.

These and other features of the present invention will be apparent from the detailed description and the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevational view of a funnel according to the present invention, the funnel having a pivotable mounting bracket disposed in a first position wherein the mounting bracket is in a stowed position.

FIG. 2 is a top plan view of the funnel of FIG. 1.

FIG. 3 is a rear elevational view of the funnel of FIG. 1.

FIG. 4 is a view of the funnel of FIG. 1 similar to FIG. 1 with the mounting bracket disposed in a second position wherein the mounting bracket is in an outboard position.

FIG. 5 is an enlarged, detail view, in section, taken of the area in FIG. 4 indicated by circle 5-5 illustrating the mounting bracket connected to the funnel body via a living hinge.

FIG. 6 is an enlarged, detail view taken of the area in FIG. 3 indicated by circle 6-6, showing the mounting bracket with an elongated flexible strap removably mounted thereto.

FIG. 7 is a plan view of the elongated flexible strap of FIG. 6.

FIG. 8 is an enlarged, detail view taken of the area in FIG. 2 indicated by circle 8-8 illustrating a retaining tab of the mounting bracket disposed in a channel of the body of the funnel.

FIG. 9 is a side elevational view of the funnel of FIG. 1, partially broken away, mounted to a safety canister with the mounting bracket disposed in the first position.

FIG. 10 is a view as in FIG. 9 but with the mounting bracket disposed in an outboard position.

FIGS. 11-13 are side elevational views of the funnel of FIG. 1, the safety canister of FIG. 9, and a target container for receiving fluid from the safety canister, with the funnel being partially broken away in FIGS. 12 and 13 and the target container being partially broken away in FIG. 13, illustrating a pouring sequence wherein fluid is transferred from the safety canister to the target container.

DETAILED DESCRIPTION OF THE INVENTION

Now referring to the drawings, wherein like numbers refer to like elements, there is illustrated in FIG. 1 an embodiment of a funnel 100 constructed in accordance with the present invention. The funnel can be used to receive a
fluid or a granular material from one container and direct that fluid or material into a smaller opening of a second container.

[0021] The funnel 100 can include a body portion 102, an elongated spout 104 disposed at a distal end 106 of the funnel, a splash bowl or scupper portion 108 disposed at a proximal end 110 of the funnel, and a pivotably movable mounting bracket 114 disposed at the proximal end 110 of the funnel in opposing relationship to the scupper 108. Preferably, the funnel 100 is made from a plastic material, such as polypropylene. The funnel can be made by any suitable technique, such as by injection molding, for example. Preferably, the various components of the funnel are molded together as an integral article.

[0022] Referring to FIG. 1, the funnel body 102 defines the interior of the funnel through which fluid can pass between the proximal end 110 and the distal end 106. The body 102 tapers from the proximal end 110 to the distal end 106 and includes a plurality of curved surfaces. The funnel body 102 defines an interior passage 120 (as shown in FIG. 2) through which material can be conveyed. The passage 120 extends between the proximal end 110 into which the material can be poured and the distal end 106 from which the poured material can exit via the spout 104.

[0023] Referring to FIG. 2, the proximal end 110 is in the form of a relatively large opening or mouth 122 through which fluid can pass. The distal end 106 of the funnel includes the spout 104, which has an opening or exit orifice 124 that is relatively smaller than the mouth 122 at the proximal end.

[0024] To provide a convenient area for pouring fluid therethrough, the proximal end 110 can include a rim 126 that defines the proximal opening 122. The rim 126 can be formed as a lip that extends around the perimeter of the proximal opening 122 to provide structural support to the funnel 100. The distal end 106 can define the exit orifice 124 so that it has an area that is smaller than the area defined by the funnel mouth 122.

[0025] Referring to FIG. 1, to assist in inserting the funnel 100 into the opening of a container, the elongated spout 104 is provided. The spout 104 can be a stepped, tubular structure that extends between the body 102 and the exit orifice 124. The spout 104 is joined to the body 102 at a first shoulder 132. The spout 104 can include a pair of frustoconical portions 134, 135 with a second shoulder 138 disposed therebetween. The first shoulder 132 can be placed adjacent to a lip of a container opening into which liquid, for example, is to be poured via the funnel 100 to support the funnel 100 during use and can act as a stop to facilitate the use of the funnel by providing a convenient reference point for the user to confirm the funnel is sufficiently inserted in the receiving container to reduce spills.

[0026] Referring to FIG. 1, to prevent splashing and spillage, the funnel body can include the scupper portion 108 extending from the body 102. The scupper 108 is located opposite the mounting bracket 114 so that the scupper 108 is aligned with the pour spout of the safety canister when the funnel is secured thereto.

[0027] The scupper 108 can include a tapered portion 140 which angles toward the body 102. The shape of the scupper 108 can direct fluid from the mouth 122 toward the exit orifice 124. The body 102 and the scupper 108 are preferably integrally molded together. In some embodiments, the scupper 108 can extend a predetermined distance that is between about one-third and one-half the height of the funnel, as measured between the proximate end 110 and the distal end 106.

[0028] Referring to FIG. 2, a first part 150 of the rim 126 is formed by the body 102 and a second part 151 of the rim 126 is formed by an upper edge 155 of the scupper 108. The scupper 108 can act to elongate the mouth 122 to facilitate the transfer of fluid from a safety canister, to which the funnel is mounted, into the funnel. The upper edge 155 of the scupper 108 has a generally semi-circular shape that extends toward the mounting bracket 114. The extended scupper portion 108 increases the area of the mouth 122 through which fluid from the safety canister can be poured.

[0029] Referring to FIG. 3, the funnel 100 is provided with a mounting bracket 114 that is pivotal with respect to the funnel body 102. The mounting bracket 114 is pivotably movable over a range of travel including a first position, as shown in FIGS. 1–3, and a second position, as shown in FIG. 4. The mounting bracket can be configured to removably secure the funnel to a Type 1 safety canister of known construction. Examples of such a safety canister include the container shown and described in U.S. Pat. No. 4,491,251 to Pratz et al., the entire contents of which are incorporated herein by reference, and those that are commercially available from Justrite Manufacturing Co. of Mattawan, Ill. The mounting bracket 114 can be used to pivotally secure the funnel 100 to the safety canister. Preferably, the mounting bracket is molded from the same material as the funnel body, and more preferably, the funnel body and the mounting bracket are integrally molded together. It will be appreciated that integrally molding the funnel body and the mounting bracket can significantly simplify the manufacture of the funnel as well as reduce its cost.

[0030] Referring to FIG. 3, the funnel body 102 includes a cutout 160 that is disposed adjacent the rim 126 and extends a predetermined distance from the rim toward the distal end 106. The cutout 160 is defined by a first edge 161 and a second edge 162 in spaced relationship with the first edge 161. A living hinge 169 can extend between the distal ends of the first and second edges 161, 162. The mounting bracket 114 is pivotally secured to the body 102 via the living hinge 169. The mounting bracket 114 can pivot about the axis defined by the living hinge 169 over a range of travel between, at least, the first position and the second position (see FIGS. 4 and 5). The cutout 160 can be configured to allow the mounting bracket 114 to be disposed substantially within the cutout. When the mounting bracket 114 is disposed in the first position adjacent the funnel body 102, as illustrated in FIG. 3, the mounting bracket can be aligned generally within a plane corresponding to the cutout 160 between the first and second edges 161, 162 (see FIG. 2 also).

[0031] Referring to FIG. 6, the mounting bracket 114 includes first and second sidewalks 170, 171 in spaced relationship with each other, a web 172 that spans between the first and second sidewalks 170, 171, a collar 174 defined by and extending from the web 172, a pair of mounting posts 176 extending from the web 172, and a flexible mounting strap 178 removably secured to the mounting posts 176. The
first and second sidewalls 170, 171 of the mounting bracket 114 are formed as flanges that are substantially parallel to each other and substantially perpendicular to the web 172. Each sidewall has a first end 182 that is disposed adjacent to the first and second retaining tabs 200, 201 project from the first and second side walls 170, 171, respectively. Referring to FIG. 8, each edge 160 of the cut-out can include a channel 208. The channel 208 is defined by a pair of walls 210, 211 in spaced relationship to each other. The retaining tab 200 projects a sufficient distance from the sidewall 170 of the mounting bracket to be received and retained within the channel 208.

[0037] To enable the mounting bracket 114 to selectively move from the first position toward the second position, the retaining tab 200 and the channel 208 are configured to allow the retaining tab to move past the outer channel wall 211 upon application of a sufficient force. Similarly, when the mounting bracket 114 is moved from the second position into the first position, an inclined surface 214 of the retaining tab 200 will encounter the outer channel wall 211. Once a sufficient force is applied, the bearing action of the inclined surface 214 against the wall 211 will allow for relative movement of the retaining tab 200 and the outer channel wall 211 to allow the retaining tab 200 to move past the outer channel wall 211 into the channel 208. The second retaining tab 201 can function in a similar manner as the first retaining tab.

[0038] Referring to FIGS. 2 and 8, to prevent moving the mounting bracket 114 beyond the first position into the interior of the funnel body 102, the mounting bracket 114 can include first and second stops 220, 221 that respectively project from the first and second side walls 170, 171 of the mounting bracket 114. The first and second stops 220, 221 are located along the first and second side walls 170, 171 in spaced relationship with the first and second retaining tabs 200, 201, respectively. The stops 170, 171 project further from the side walls 170, 171 than the retaining tabs. Referring to FIG. 8, when the retaining tab 200 is received in the channel 208, the stop 220 abuts against the outer channel wall 211 preventing further inward movement of the mounting bracket 114. The second stop 221 can function in a similar manner as the first stop 220.

[0039] Referring to FIGS. 9 and 10, to allow for the movement of the position of the funnel 100 with respect to a safety canister 250, the mounting bracket 114 is pivotally connected to the funnel body 102. Accordingly, as illustrated in FIGS. 9 and 10, the funnel 100 can move through a range of positions with respect to a pour spout 252 of the safety canister 250.

[0040] Referring to FIG. 9, the mounting bracket 114 of the funnel 100 is mounted to the pour spout 252 of the safety canister 250. The illustrated safety canister 250 includes a can 254 that defines an enclosed storage volume for holding fluid. Fluid communication with the enclosed storage volume is established through the pour spout 252 that projects from a top surface 256 of the can 254. The pour spout 252 can be sealed with a lid 258. The lid 258 is pivotally attached to the pour spout 252 and can move between an open position and a closed position, as illustrated in FIGS. 9 and 10, respectively.

[0041] The safety canister 250 can include a handle 260 that is operable to move the lid 258 between the open and closed positions. The handle 260 extends from the top surface 256 of the can 254 and is pivotally attached thereto by a hinge 262. The handle 260 is also pivotally attached to the lid 258 by a linkage 264. As the handle 260 is moved about the hinge 262, the linkage 264 acts upon the lid 258 to alternately open or close the lid 258, depending upon which direction the handle is pivoted. Other examples of a container suitable for use with the present invention are any
suitable container, such as any Type I safety container commercially available from Justrite Manufacturing Co. of Mattoon, Ill.

[0042] Referring to FIG. 9, the collar 174 is disposed around the pour spout 252 of the safety container 250 such that the collar 174 is frictionally engaged with the pour spout 252. The collar 174 can be mounted to the pour spout 252 by aligning the collar with the pour spout with the collar slightly above the pour spout. The collar 174 can be moved along its central axis until the collar slides onto the pour spout 252. The collar 174 can be configured such that it defines an opening that is slightly smaller than the outer diameter of the pour spout 252 such that the collar flexes outwardly as it slides onto the pour spout 252. By sizing the collar 174 such that there is a slight interference fit between the collar 174 and the pour spout 252, the collar 174 can grip the pour spout 252 to further enhance the retentive engagement therebetween. The mounting strap 178 is attached to the mounting posts 176 of the mounting bracket 114, thereby enclosing the open end of the C-shaped collar 174. The mounting strap 178 can also act to limit the outward flexing of the collar 174 to a predetermined amount.

[0043] The funnel 100 is shown in FIG. 9 with the mounting bracket 114 in the first position. The mounting bracket 114 can be secured in the first position by way of the retaining tabs such that the funnel 100 is stowed in the position as shown in FIG. 9. In this stowed position, the funnel 100 and the safety container can be transported with the funnel remaining in the same relative position.

[0044] Referring to FIG. 10, the relative position of the funnel body 102 and the pour spout 252 can be adjusted. With the mounting bracket 114 disposed in the position as shown in FIG. 10, the funnel body 102 is free to pivot about the hinge axis defined by the living hinge with respect to the mounting bracket 114 and to the pour spout 252 of the safety container. With the mounting bracket 114 in this outboard position, the spout 104 of the funnel can be conveniently positioned with respect to an opening in a target container to allow the spout 104 to be inserted therein. As shown in FIG. 10, the pour spout 252 is substantially unobstructed by the funnel body, thereby allowing access to the pour spout 252, for example, to fill the safety container 250.

[0045] The handle 260 has been activated to move the lid 258 of the safety container 250 into the open position wherein fluid stored in the safety container 250 can be poured therefrom. The funnel 100 is pivotally movable about the living hinge securing the mounting bracket 114 to the funnel body 102. In the position as shown in FIG. 10, the safety container 250 and the funnel 100 can be used to pour liquid from the safety container through the funnel 100 into a second storage device.

[0046] Referring to FIGS. 11-13, a pouring sequence is shown wherein fluid stored in the safety container 250 is conveyed through the funnel 100 to a second storage container 270. During the pouring sequence, the funnel body 102 can pivot with respect to the pour spout 252 of the safety container 250 by way of the pivotal movement of the mounting bracket 114 such that the funnel body 102 can be positioned in response to the fluid being conveyed therethrough so that the funnel 100 maintains an orientation that allows the fluid to pass therethrough with little spilling.

[0047] Referring to FIG. 12, the safety container 250 has been tipped in the direction of arrow 281 such that the pour spout 252 is in a position that allows fluid to flow therefrom. Advantageously, as the safety canister 250 is tilted with respect to the funnel body 102, the pour spout 252 moves into the cutout of the funnel 100. Accordingly, the pour spout 252 can direct fluid directly into the interior of the funnel body 102 further reducing the possibility of splashing and spillage.

[0048] In response to the movement of the safety container 250, the funnel 100 has moved in the direction indicated by arrow 282. Fluid flowing from the safety container 250 is flowing through the body 102 of the funnel with at least a portion thereof splashing against the scupper portion 108. The funnel 100 can resolve itself into a position that allows fluid to flow therethrough such that spillage is reduced.

[0049] Referring to FIG. 13, the safety container 250 has been pivoted further in the direction indicated by the arrow 281, and the funnel 100 has moved in an opposite direction indicated by arrow 283 in response to the tipping movement of the safety container 250 and/or to the fluid being conveyed therethrough. As shown in FIG. 13, the funnel 100 can pivot about the mounting bracket 114 in response to the amount and/or rate of fluid being conveyed therethrough to maintain a flow path such that very little spillage occurs.

[0050] Accordingly, the invention can provide a funnel mountable to a safety canister and useful for directing fluid from the pour spout of the safety canister to an opening in another container. To mount the funnel to the safety canister, the funnel includes a mounting bracket that is pivotally connected to a funnel body. The pivotal connection between the mounting bracket and the funnel body allows the position of the funnel mouth to be adjustable with respect to the pour spout of the safety canister to facilitate pouring.

[0051] All references, including publications, patent applications, and patents, cited herein are hereby incorporated by reference to the same extent as if each reference were individually and specifically indicated to be incorporated by reference and were set forth in its entirety herein.

[0052] The use of the terms “a” and “an” and “the” and similar referents in the context of describing the invention (especially in the context of the following claims) are to be construed to cover both the singular and the plural, unless otherwise indicated herein or clearly contradicted by context. The terms “comprising,” “having,” “including,” and “containing” are to be construed as open-ended terms (i.e., meaning “including, but not limited to,”) unless otherwise noted. Recitation of ranges of values herein are merely intended to serve as a shorthand method of referring individually to each separate value falling within the range, unless otherwise indicated herein, and each separate value is incorporated into the specification as if it were individually recited herein. All methods described herein can be performed in any suitable order unless otherwise indicated herein or otherwise clearly contradicted by context. The use of any and all examples, or exemplary language (e.g., “such as”) provided herein, is intended merely to better illuminate the invention and does not pose a limitation on the scope of the invention unless otherwise claimed. No language in the specification should be construed as indicating any non-claimed element as essential to the practice of the invention.

[0053] Preferred embodiments of this invention are described herein, including the best mode known to the
inventors for carrying out the invention. Variations of those preferred embodiments may become apparent to those of ordinary skill in the art upon reading the foregoing description. The inventors expect skilled artisans to employ such variations as appropriate, and the inventors intend for the invention to be practiced otherwise than as specifically described herein. Accordingly, this invention includes all modifications and equivalents of the subject matter recited in the claims appended hereto as permitted by applicable law. Moreover, any combination of the above-described elements in all possible variations thereof is encompassed by the invention unless otherwise indicated herein or otherwise clearly contradicted by context.

What is claimed is:

1. A funnel comprising:
   a funnel body including a proximate end, having a rim and defining a funnel mouth, and a distal end, defining an exit orifice; and
   a mounting mechanism, the mounting mechanism pivotally connected to the funnel body.

2. The funnel of claim 1, wherein the mounting mechanism includes a collar for retentively engaging a pour spout of a canister.

3. The funnel of claim 2, wherein the funnel body and the mounting bracket are pivotally connected by a living hinge.

4. The funnel of claim 3, wherein the funnel body includes an opening extending a predetermined distance from the rim toward the distal end, the mounting bracket pivotable with respect to the opening.

5. The funnel of claim 4, wherein the opening is defined by a first edge, a second edge, and the living hinge, the living hinge extending between the first and second edges, the living hinge defining a hinge axis about which the mounting mechanism is pivotable.

6. The funnel of claim 5, wherein the mounting bracket is pivotable about the hinge over a range of travel between a first position wherein the mounting bracket is substantially coplanar with a plane defined by the first and second edges, and a second position wherein the mounting bracket is generally perpendicular to the plane defined by the first and second edges.

7. The funnel of claim 2, wherein the collar is C-shaped and has a pair of ends, the ends defining a collar gap.

8. The funnel of claim 7, further comprising:
   a strap extending across the collar gap.

9. The funnel of claim 8, wherein the mounting mechanism includes a pair of rods each having a rounded head, the strap including a pair of mounting holes, the rods respectively extending through the mounting holes, and the rounded heads removably retaining the strap.

10. The funnel of claim 7, wherein the mounting mechanism includes a first side, a second side, and a web extending between the sides, the collar extending from the web.

11. The funnel of claim 10, wherein the funnel body includes a channel and the first side of the mounting mechanism includes a retaining tab projecting into the channel when the mounting mechanism is in a first position, thereby retaining the mounting mechanism.

12. The funnel of claim 11, wherein the first side includes a stop in spaced relationship to the retaining tab, the stop projecting further from the first side than the retaining tab, the stop engageable with the funnel body.

13. The funnel of claim 12, wherein the funnel body includes a second channel, and the second side of the mounting mechanism includes a second retainer tab projecting into the channel and a second stop in spaced relationship thereto.

14. The funnel of claim 1, wherein the funnel body includes a scupper disposed adjacent the proximate end.

15. The funnel of claim 14, wherein the scupper is disposed in opposing relationship to the mounting mechanism.

16. The funnel of claim 1, wherein distal end includes an elongated spout.

17. The funnel of claim 16, wherein the spout has a pair of stepped portions with a shoulder therebetwew.

18. A funnel comprising:
   a rim defining a mouth;
   an exit orifice;
   an interior surface defining a passageway, the passageway extending between the mouth and the exit orifice; and
   a scupper disposed adjacent the mouth, the scupper including an upper edge, the upper edge constituting a part of the rim.

19. A funnel comprising:
   a body portion defining an internal passage;
   a proximal end having a mouth and a distal end having an exit orifice, the mouth and the exit orifice in fluid communication via the internal passage of the body;
   an elongated spout disposed at the distal end and forming a part of the internal passage;
   a scupper disposed at the proximal end and extending from the body portion; and
   a movable mounting bracket connected to the body portion and disposed at the proximal end.

20. The funnel of claim 19, wherein the scupper and the mounting bracket are disposed in opposing relationship to each other.

21. The funnel of claim 20, wherein the spout includes a first portion and a second portion, the first and second portions having a shoulder disposed therebetwew.

22. The funnel of claim 21 wherein at least one of the first and second portions of the spout has a generally frustoconical shape.

23. The funnel of claim 19, wherein the mounting bracket is pivotally connected to the body portion.

24. A storage and transfer system comprising:
   a canister, the canister including a can, defining an enclosed storage volume, and a pour spout in communication with the storage volume; and
   a funnel, the funnel including a funnel body and a mounting bracket, the mounting bracket pivotally connected to the funnel body, the mounting bracket securable to the pour spout of the canister.

25. The storage and transfer system of claim 24, wherein the mounting bracket includes a collar, the collar disposable around the spout.
26. The storage and transfer system of claim 25, wherein the collar has a first size and the pour spout has a second size, the first size being relatively smaller than the second size such that the collar frictionally engages the spout when the collar is disposed therearound.

27. The storage and transfer system of claim 26, wherein the collar is resiliently flexible such that it flexes outwardly in response to being disposed around the spout.

28. The storage and transfer system of claim 24, wherein the mounting bracket is pivotally connected to the funnel body via a living hinge.

29. The storage and transfer system of claim 24, wherein the funnel body includes a proximate end having a rim defining a mouth, and a scupper adjacent the proximate end.

* * * * *