The disclosure teaches a vacuum straw comprising a tubular shaft. The tubular shaft can comprise an upper portion and a lower portion. The upper portion can comprise a top end and that closes the top of the shaft, and one or more orifices on the side of the upper portion just below the top end. The lower portion can comprise an opening at the end of said lower portion. There can be a fluid path between the opening and the one or more orifices. The disclosure also teaches a method of using the above-mentioned vacuum straw. The method can comprise placing a vacuum straw within a bag, putting the upper portion into a mouth, sucking air out of the bag, and closing said bag.
SYSTEM AND METHOD FOR REMOVING AIR FROM HOUSEHOLD BAGS

BACKGROUND

0001 This disclosure relates to a system and method for removing air from household bags.

0002 Over the years, various methods have been developed to preserve frozen foods longer. The vacuum sealer device can remove the air out from a re-sealable bag before sealing. This method can be effective but such method can be more expensive and inconvenient since user needs to buy the specially designed bag for the vacuum sealer device to work efficiently.

0003 A common straw could be used by putting it into a re-sealable bag. However, such straw may not be effective especially when the food inside the bag contains small items or liquid. In such scenario, trying to suck the air out quickly can cause the user to swallow small particles or can even choke the user.

0004 As such it would be useful to have an improved system and method for removing air from household bags.

SUMMARY

0005 The disclosure teaches a vacuum straw comprising a tubular shaft. The tubular shaft can comprise an upper portion and a lower portion. The upper portion can comprise a top end and that closes the top of the shaft, and one or more orifices on the side of the upper portion just below the top end. The lower portion can comprise an opening at the end of said lower portion. There can be a fluid path between the opening and the one or more orifices.

0006 The disclosure also teaches a method of using the above-mentioned vacuum straw. The method can comprise placing a vacuum straw within a bag, putting the upper portion into a mouth, sucking air out of the bag, and closing the bag.

BRIEF DESCRIPTION OF THE DRAWINGS

0007 FIG. 1 illustrates a vacuum straw mounted within a bag.

0008 FIG. 2A illustrates a top view of vacuum straw comprising a shaft.

0009 FIG. 2B illustrates a side view of vacuum straw comprising pointed end.

0010 FIG. 3A illustrates an expanded view of upper portion comprising a top end, and a plurality of orifices.

0011 FIG. 3B illustrates an embodiment of upper portion further comprising a pair of rims.

0012 FIG. 4A illustrates an embodiment of lower portion.

0013 FIG. 4B illustrates another embodiment of second portion.

0014 FIG. 5 illustrates how air can be removed from bag using vacuum straw.

DETAILED DESCRIPTION

0015 Described herein is a system and method for removing air from household bags. The following description is presented to enable any person skilled in the art to make and use the invention as claimed and is provided in the context of the particular examples discussed below, variations of which will be readily apparent to those skilled in the art. In the interest of clarity, not all features of an actual implementation are described in this specification. It will be appreciated that in the development of any such actual implementation (as in any development project), design decisions must be made to achieve the designers' specific goals (e.g., compliance with system- and business-related constraints), and that these goals will vary from one implementation to another. It will also be appreciated that such development effort might be complex and time-consuming, but would nevertheless be a routine undertaking for those of ordinary skill in the field of the appropriate art having the benefit of this disclosure. Accordingly, the claims appended hereto are not intended to be limited by the disclosed embodiments, but are to be accorded their widest scope consistent with the principles and features disclosed herein.

0016 FIG. 1 illustrates a vacuum straw 100 mounted within a bag 101. For purposes of this disclosure, vacuum straw 100 can be a long and hollow tube that can be used for sucking liquid or air out from a container. Vacuum straw 100 can be any type of straw that can include but is not limited to a straight or bendable straw. Bendable straw can have a hinged portion near the top portion of vacuum straw 100. Bag 101 can be any type of re-sealable, sandwich, storage or freezer bag.

0017 FIG. 2A illustrates a top view of vacuum straw 100 comprising a shaft 201. Shaft 201 can be made of a durable material such as plastic. In one embodiment, shaft 201 can have a cylindrical form. In another embodiment, shaft 201 can be substantially in ellipsoidal form. In such embodiment, the opposite sides of shaft 201 can have a pointed end 202. Shaft 201 can comprise an upper portion 201a and a lower portion 201b. Upper portion 201a can be placed at the top of shaft 201 while bottom portion 201b can be placed at the bottom of shaft 201. As such, upper portion 201a can be the section of vacuum straw 100 that can be placed into the mouth of a user while lower portion 201b can be the section that is mounted within bag 101.

0018 FIG. 2B illustrates a side view of vacuum straw 100 comprising pointed end 202. In this embodiment, shaft 201 can have an ellipsoidal form. This structure can provide shaft 201 with a substantially flat body.

0019 FIG. 3A illustrates an expanded view of upper portion 201a comprising a top end 301, and a plurality of orifices 302. Top end 301 can be at the outer edge of upper portion 201a. Top end 301 can comprise a covering 303. Covering 303 can be unibody with top end 301. Thus, 303 and top end 301 can be a single device. As such, top end 301 can be a section of upper portion 201a that is permanently covered. Orifices 302 can be one or more holes that are at the upper portion 201a. Furthermore, orifices 302 can be placed at the opposite sides of upper portion 201a parallel to each other. In an embodiment wherein shaft 201 can have an ellipsoidal form, orifices 302 can be at pointed ends 202 of upper portion 201a.

0020 FIG. 3B illustrates an embodiment of upper portion 201a further comprising a pair of rims 304. In this embodiment, rims 304 can be placed below orifices 302. Rims 304 can be the protruding portions at upper portion 201a, and can provide a place for lips to grip.

0021 FIG. 4A illustrates an embodiment of lower portion 201b. Lower portion 201b can comprise an opening 401. Opening 401 can be placed at the bottom end of lower portion 201b. In this embodiment, the bottom end of second portion 100b can have a flat form. As such the outer edge of lower portion 201b can be straight and in parallel with the outer edge of upper portion 201a.
FIG. 4B illustrates another embodiment of second portion 201b. In this embodiment, the outer edge of lower portion 201b can have a slanted form. As such, the outer edge of lower portion 201b can comprise a pointed tip 401. Pointed tip 401 can be used to reach into corners of bag 101, in one embodiment. Further, when the bottom end of lower portion 201b lies at the bottom of bag 101, the slant form of lower portion 201b can prevent opening 401 to be completely covered by bag 101.

FIG. 5 illustrates how air can be removed from bag 101 using vacuum straw 100. To remove air from bag 101, shaft 201 can be mounted within bag 101. Thus, lower portion 201b can rest within bag 101, while upper portion 201a can be outside bag 101. The user can then put upper portion 201a into his mouth in order to remove air within bag 101. In an embodiment wherein shaft 201 can comprise rims 304, rims 304 can rest at the top edge of bag 101. A user's lips can rest on rim 304. Once mouth is in place within upper portion 201a, the user can start sucking out the air that is within bag 101. The air from bag 101 can be released at orifices 302. Furthermore, since top end 301 can be sealed through covering 303, vacuum straw 100 can prevent the user from directly swallowing any small particle or liquid within bag 101. After air has been sucked out, the user can remove vacuum straw 100 from bag 101, and then close bag 101 to keep the air out of bag 101.

Various changes in the details of the illustrated operational methods are possible without departing from the scope of the following claims. Some embodiments may combine the activities described herein as being separate steps. Similarly, one or more of the described steps may be omitted, depending upon the specific operational environment the method is being implemented in. It is to be understood that the above description is intended to be illustrative, and not restrictive. For example, the above-described embodiments may be used in combination with each other. Many other embodiments will be apparent to those of skill in the art upon reviewing the above description. The scope of the invention should, therefore, be determined with reference to the appended claims, along with the full scope of equivalents to which such claims are entitled. In the appended claims, the terms “including” and “in which” are used as the plain-English equivalents of the respective terms “comprising” and “wherein.”

1. A vacuum straw comprising a tubular shaft comprising an upper portion at the top of said shaft, said upper portion comprising a top end and a plurality of orifices on the side of said tubular shaft, said top end comprising a covering; and a lower portion comprising an opening, said opening placed at the outer edge of said lower portion, said opening in fluid connection with said one or more orifices through said shaft.
2. The system of claim 1, wherein said covering is a uni-body with said upper portion.
3. The system of claim 1, wherein said shaft has a cylindrical form.
4. The system of claim 1, wherein said shaft is substantially in ellipsoidal form.
5. The system of claim 1, wherein the outer edge of said lower portion can have a straight form.
6. The system of claim 1, wherein the outer edge of said lower portion can have a slanted form.
7. The system of claim 1, further comprising a pair of rims placed below said plurality of orifices.
8. The system of claim 1 wherein said shaft comprises plastic.
9. The system of claim 1 where in said shaft comprises a straight tubular body.
10. The system of claim 1 wherein said shaft comprises a single rim.
11. A method of removing air from a bag comprising placing a vacuum straw within a bag, said vacuum straw comprising a tubular shaft comprising an upper portion at the top of said shaft, said upper portion comprising a top end and a plurality of orifices on the side of said tubular shaft, said top end comprising a covering; and a lower portion comprising an opening, said opening placed at the outer edge of said lower portion, said opening in fluid connection with said one or more orifices through said shaft; putting said upper portion into a mouth; sucking air out of said bag; and closing said bag.
12. The method of claim 11 wherein said tubular shaft further comprising a pair of rims placed below said plurality of orifices.
13. The method of claim 12 further comprising the step of resting said mouth on said pair of rims.
14. The method of claim 12, wherein the outer edge of said lower portion can have a straight form.
15. The system of claim 12, wherein the outer edge of said lower portion can have a slanted form.

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