The invention described herein is kit for making wine comprising a rigidly-walled container that houses a bag within which the juice is fermented through a fermentation lock. After the juice is fermented, the opening used for the fermentation lock is sealed, the yeast is permitted to settle to the bottom and a tap delivery means in the side of the juice bag is used to deliver the wine. As wine is dispensed, the juice bag correspondingly collapses without there being any air intake. After the wine has been consumed, the bag is disposed of in the garbage or recycling bin.
WINE KIT AND METHOD FOR MAKING WINE

[0001] This invention relates to an apparatus and method of making wine for the hobbyist.

[0002] The problem with wine making for the hobbyist is that the equipment required is varied and the fermentation container must be re-sterilized every usage.

[0003] Generally, the most common manner of making wine, for the hobbyist, is to obtain juice concentrate and add the concentrate, along with water and wine yeast into a carefully cleaned and sterilized carboy, which is then sealed with a fermentation lock. The mixture is allowed to ferment over time and is racked at appropriate times to remove sediment and help the wine clarify. Racking requires the transfer of the wine to a second carboy using tube transfer with sterilized tubes and the sterilization of the second carboy. Often there is a residual crust from the intensity of the initial fermentation that forms on the first carboy and fermentation lock that is difficult or impossible to clean away, and, frequently, the component parts, and sometimes even the carboy, have to be replaced. At the end of the process, when all racking has been completed and the fermentation process has ended so that the bottling of the wine may begin, a great deal of labour has had to be expended simply in sterilization of the carboys to ensure quality of the final product. As well, bottles must be sterilized carefully as well.

[0004] Advances have been made in the art of winemaking to remove some of the traditional steps outlined above. By using separation and clarification chemicals, very good wine can be made without the process of racking, i.e. transferring the wine between carboys during fermentation to lessen the content of residue.

[0005] Some wine kits now come with barrels wherein the juice, water and yeast are added into the barrel and after fermentation is complete, separation and clarification chemicals are added, and, after a suitable waiting period, a clear high-quality wine can be directly tapped out of the barrel. Still, there is a problem in that, if the user wishes to make a further batch of wine using the same barrel, the barrel must be carefully cleaned and sterilized. As well, before use even in the first instance, the barrel has to be sterilized and cleaned. Even with this barrel system, there is no avoidance of the cumbersome aspects of the process.

[0006] A further problem with the barrel method is that, unless the wine is bottled, there can be an air contamination problem that develops over time as the wine is consumed and the liquid level in the barrel decreases, allowing more air into the barrel.

[0007] It is an object of the present invention to overcome the cumbersome aspects of the prior art by providing a method and apparatus for making wine wherein the wine can be made without the user having to worry about sterilization of the container and which simplifies the steps required to make the wine.

[0008] As well, it is an object of this invention to provide an apparatus and method such that, if the wine is consumed over time from the container within which it is made, the problem of air contamination of the wine is greatly reduced.

[0009] It is yet another object of the present invention to provide an apparatus and method for making wine that is cheap, efficient and can be accomplished as well by the novice as by the expert.

[0010] Others objects of the present invention will become apparent from the description provided herein.

[0011] According to an aspect of the present invention, there is provided a method and a wine kit apparatus utilizing a flexible bag containing juice concentrate, said flexible bag having a first opening with a spigot mountable thereon and a second opening with a coupling means for receiving a fermentation lock and sealing cap; there also being a container for containing and supporting the flexible bag within the container, said container having a front opening through which can extend the spigot and a top opening at which the bag may be mounted via a coupling ring to depend from the top of the container therewithin. In use, water and yeast may be added to the concentrate through the top opening and, after the water and yeast have been added, the top opening can be sealed from the outside air with a fermentation lock to permit fermentation within the bag and container, with the gas thereby produced being permitted to escape through the fermentation lock.

[0012] In the preferred embodiment, clarification and separating chemicals are added by temporarily removing the fermentation lock and adding the clarification and separating chemicals through the top opening into the mixture, and then replacing the fermentation lock onto the bag at the top opening. In a few days thereafter, after the sediment has sufficiently separated and settled, the fermentation lock is removed, the bag at the second opening is unmounted from the container and a sealing lock is attached to the opening of the coupling ring. The wine can then be removed from the container by pouring the wine through the spigot, which extends through the front opening. As wine is withdrawn from the bag and as the bag is no longer secured to the top of the container, the bag collapses within the container and there is no air contamination.

[0013] In the preferred embodiment, the spigot is inwardly configured with a laterally extending barrier, within the bag, so as not to draw up sediment.

[0014] In yet another embodiment of the method and apparatus, a second bag may be used to permit racking of the wine during production and physical removal of the sediment from the process.

[0015] After the process is complete and the wine has been consumed, the container, which can be as simple and cheap structurally as a cardboard box, providing the necessary structural integrity has been incorporated, can be discarded. In essence, the wine kit is disposable. The user need not concern himself with sterilization because the bag, already provided, is sterilized.

[0016] The user need neither have concern for air contamination because, after the wine process is complete, and the sealing cap reattached to the coupling ring, and the ring is unlocked from the outside container, the bag will follow, in shape, the decrease in wine volume as wine is dispensed through the spigot. No air is introduced into the container.

[0017] As well, bottling is an option that need not be carried out, thereby negating the need to sterilize bottles.

[0018] The invention, both method and apparatus, will be more fully understood after reading the following description of the preferred embodiment given in conjunction with the following drawings of the preferred embodiment in which:
FIG. 1 is a cross sectional schematic showing the container and the bag of the preferred embodiment of this invention;

FIG. 2 is a cross sectional schematic showing the bag mounted within the container with a funnel being used to add a yeast mixture to the juice concentrate;

FIG. 3 is a cross sectional schematic showing the preferred embodiment of the invention with the fermentation lock in place;

FIG. 4 is a cross sectional schematic showing the bag within the container after the fermentation lock has been removed and has been replaced with the sealing cap;

FIG. 5 shows the bag within the container as drinkable wine is being depleted from the container; and

FIG. 6 shows a thumbnail perspective of the container of the preferred embodiment.

FIG. 7 is a schematic illustrating a draw-string technique for sealing the sediment off the portion of the bag from which wine is to be poured through the spigot.

Referring to the drawings, there is provided a flexible bag 8 containing juice concentrate. The bag can be made of plastic, using the conventional material presently used to bag concentrate. However, in the present case, the bag will have a capacity to receive the other ingredients (yeast) necessary to make the wine, and the bag 8 will have a first opening 10 with a pour spigot 12 mounted therein for pouring wine from the bag, after production, and a second opening 14 with a coupling ring 16 for receiving a fermentation lock 18 or sealing cap 20 as the need might be, depending on the stage of the process.

Further to the bag 8, spigot 12 and coupling ring 16, there is also provided a container 17 for containing and supporting the flexible plastic bag 8 within the container 17. The container 17 has a front opening 22 through which can extend the spigot and a top opening 24 at which the bag may be mounted at its second opening 14 using the coupling ring 16. In coupling ring is mountable at the top opening so that, when so mounted, the sealing cap 20 can be threadedly removed and a fermentation lock 18 mounted thereon to permit the fermentation process.

The first step is to mount the bag 8, preferably having both concentrate and water into the container 17 by extending the spigot 12 through the front opening 22 and mounting the coupling ring 16 to the container 17 at the top opening 24 so that the bag 8 is mounted within the container 17 for pouring and fermentation. The mounting of the coupling ring 16 to the opening of the container 17 may be achieved by any obvious manner. The inventor suggests that a ridge 19 be formed in the ring so that it will nest itself within the top opening of the container 17 without movement. The sealing cap 20 of the coupling ring 16 is removed so that the bag 8 is opened for delivery of the water and yeast solution. The cap may be attached in any manner desired by the maker of the product, but the inventor prefers that the cap 20 be threadedly removable and attachable to the coupling ring 16.

The container 17 may be made from any material that will provide rigid support and containment of the bag 8. As will be appreciated by those skilled in the art, the fermentation process will cause the production of gas within the bag and the walls must be structurally strong enough to contain the bag and permit the gas to be directed through the fermentation lock. Although the composition of the material for the container 17 is one of design choice, the inventor states that corrugated cardboard works well and that by providing a sloped top wall, gas is more easily directed toward the fermentation lock during that fermentation process. An A-frame shape is a possibility as well. However, a purely rectangular shape will work.

After the sealing cap 20 is removed, yeast, preferably in dissolved form, is added into the bag 8 through the opening. A sterilized funnel 25 can be used to assist in the adding of the yeast. See FIG. 2.

After the yeast has been added, the fermentation lock 18 is mounted on the coupling ring 16 as shown in the drawings in FIG. 3, permitting the wine to ferment and carbon dioxide gas thereby produced to escape through the fermentation lock 18 in the standard fashion.

The length of fermentation period and the manner of mixing in the yeast solution varies as between different users and it is not intended that there be read into this specification any restrictions curtailing such skilled use and judgment, and which do not form part of this invention.

After the fermentation period has ended, clarification and separating chemicals are added by temporarily removing the fermentation lock 18 and adding the clarification and separating chemicals through the top openings 24, 10 into the bag 8. The fermentation lock 26 is then remounted and the clarification and separation period occurs. Yeast killer to kill the yeast process may also be added.

As with the choosing of the length of the fermentation period, the manner of mixing into the bag 8 the clarification and separating chemicals varies as between different users and it is not intended that there be read into this specification any restrictions curtailing such skilled use and judgment by those skilled in the art, and which do not form part of this invention.

After the sediment has sufficiently settled from clarification and separation, the fermentation lock 26 is removed, and the sealing cap 20 is resecured to the coupling ring to provide a seal, as illustrated in FIG. 4. However, after the coupling ring has been sealed with the sealing cap 20, the coupling ring 16 is unmounted from the container 17, so that the bag 8 is free to decrease in volume as wine is withdrawn from the spigot 12 as shown in FIG. 5.

The wine can then be removed from the container by pouring the wine through the spigot supported by container and mounted in the front opening. As wine is withdrawn from the bag and with the bag no longer secured to the top of the outer container, the bag collapses with the decreased liquid volume and there is no air contamination as shown in FIG. 5.

In the preferred embodiment, the spigot 12 is inwardly configured so that when it is mounted it has a laterally extending barrier 30, within the bag, so as not to draw up sediment.

In yet another embodiment of the method and apparatus, a second bag 8 may be used to permit racking of the wine during production and physical removal of the sediment from the process.
As well, the wall of the bottom of the container 17 can be configured with an angled floor by adding folded cardboard 32 so that the sediment will rest in concentrated areas on the bottom of the bag, and disturbance of any sediment will be greatly reduced, during the use of the container.

The container, during use, should not be moved greatly so as to disturb the sediment.

After the process is complete and the wine has been consumed, the container, which can be as simple and cheap structurally as a cardboard box, providing the necessary structural integrity has been incorporated, can be discarded.

As well, a drawstring configuration with a pullable draw string 38 can be used in a further embodiment to cut off the portion of the wine within the bag containing the sediment from the portion of the wine within the bag to be consumed.

The user need neither have concern for sterilizing the container in which the wine is made nor have concern about air contamination. As well, bottling is an option that need not be carried out, thereby negating the need to sterilize bottles. However, if bottling is desired, bottling may be easily accomplished using the spigot 12 for delivery from the bag, through the container, into the bottles.

After the drinkable wine has been depleted from the container, only the undrinkable sentiment portion of the wine is left in the valleys of the bottom of the container 17 and bag 8.

The invention provides a cheap and simple way of making one's own wine as a hobby removing many of the difficulties associated with the prior art.

It is not intended that this specification be read in a limiting manner but that it be read with a mind willing to understand. The embodiment shown is the preferred embodiment only and it will be understood by those skilled in the art that modifications to the preferred embodiment are possible without deviating from the scope of the present invention.

I claim the following:

1. A wine kit apparatus comprising a flexible bag containing juice concentrate, said flexible bag having a first opening with a pour spigot mountable thereon and a second opening with a coupling means for receiving alternatively a fermentation lock and scaling cap; there also being a container for containing and supporting the flexible bag within the container, said container having a front opening through which can extend the spigot and a top opening at which the bag may be mounted via a coupling ring to depend from the top of the container therewithin; in use, water and yeast may be added to the concentrate through the top opening after removing the scaling cap, and then, after the water and yeast have been added, the top opening can be sealed from the outside air with a fermentation lock to permit fermentation within the bag and container, with the gas thereby produced being permitted to escape through the fermentation lock and the bag being restrained in shape by the walls of the container.

2. A wine kit as claimed in claim 1 wherein the bottom of the container is sloped to reduce the disturbance of the sediment during pouring.

3. A wine kit as claimed in claim 1 and 2 wherein there is provided a draw string for separating the bag into two compartments after fermentation to prevent contamination of the wine to be consumed by yeast sediment.

4. A method of making wine comprising the use of a flexible bag containing juice concentrate, said flexible bag having a first opening with a pour spigot mountable thereon and a second opening with a coupling means for receiving alternatively a fermentation lock and scaling cap; inserting the bag within a container for containing and supporting the flexible bag within the container, said container having a front opening through which can extend the spigot and a top opening at which the bag may be mounted via a coupling ring to depend from the top of the container therewithin; adding yeast to the concentrate through the top opening after removing the scaling cap, and then, after the water and yeast have been added, sealing the top opening from the outside air with a fermentation lock to permit fermentation within the bag and container, with the gas thereby produced being permitted to escape through the fermentation lock and the bag being restrained in shape by the walls of the container; removing the fermentation lock after fermentation has been complete, resealing the bag at its top opening and dismounting the bag at its top opening from the container so that the bag will decrease in volume as the wine is withdrawn from the spigot during use.

5. A method of making wine as claimed in claim 4 wherein the bottom of the container is sloped to reduce the disturbance of the sediment during pouring.

6. A method of making wine as claimed in claims 4 and 5 wherein a draw string is tightened around the bag for separating the bag into two compartments after fermentation to prevent contamination of the wine to be consumed by yeast sediment.

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