quently, secure stacking can be achieved to prevent shifting during transportation.

Referring to FIG. **4**, the container lid **8** includes a passage **18** having a filter element **19** at its inboard entrance end within the container. A check valve **20** is disposed adjacent to the outlet end of the passage. A threaded fitting **21** is provided for connecting a vacuum source to the passage. The passage is threaded to allow ease in attaching the filter element and check valve, which are similarly threaded, to the passage.

The check valve is a conventional flow reversal prevention devise positioned to allow fluid flow out of the container but not to allow fluid flow back into the container. This maintains a negative pressure in the container after disconnection from the vacuum source. The check valve **20** has a ball **22** positioned between a seal **24** and a seat **25**, with the ball biased into engagement with the seal **24** by a spring **26**. By connecting a vacuum source to the passage, the spring pressure is overcome, unseating the ball and allowing evacuation of the container. After disconnection, the spring forces the ball against the seal to prevent air flow back into the container, maintaining a negative pressure within the container. Of course, a simple block valve could be used to prevent flow back into the container, but this typically requires operator attention and is not preferred. While a ball type check valve is shown, a flap check, collapsible elastomer check or other type check valve could also be used.

The filter element **19** is preferably a high efficiency particulate air (HEPA) filter medium which removes five micron particles at 99 plus percent efficiency. For example, various HEPA filter cartridges sold by Lab Safety Supply Co., such as no. RA-11299, RA-7576 or RA-3202 could be used. Thus any air removed from the container after it has been filled with a solid waste material is filtered to prevent discharge of any particulates to the atmosphere.

The container is used as follows. The lid is removed and a solid waste material is placed in the container. The lid is then added and straps placed in the grooves to hold the lid to the container. A vacuum source is then connected to the threaded fitting on the end of the passage, and internal container air is drawn through the filter and check valve to the vacuum source to create a negative pressure in the container. Since the air is filtered, it can be discharged from the vacuum source without fear of discharging harmful particulates. Thus, a conventional vacuum source, such as a vacuum cleaner, can be used without requiring container evacuation in a containment area. After the vacuum source is removed, the airtight seal between the lid and container assures that the negative pressure in the container is maintained.

Referring to FIG. **5**, an enlarged sectional view of the lid socket **16** is shown. The socket **16** is generally rectangular to accept a container leg therein. The socket has tapered portions **27** and **28** to ease entrance of the container leg without binding. A truncated cone **29** is formed beneath the socket to strengthen the socket and increase stability. These containers may weigh as much as 400 lbs when full, and the lid must be of sufficient strength to support such a weight. Preferably, the lid is formed by rotomolding which provides a hollow structure, as shown, allowing the integration of strengthening structures such as the truncated cones in the lid.

Pressure sensor means are preferably provided to indicate whether the container is under vacuum. Referring to FIGS. *7a* and *7b*, a grommet **30** is disposed in an opening **31** in the handle **6**. The grommet **30** has a resilient deformable membrane **32**, which, when vacuum is pulled in the container, is drawn inwardly to indicate that the container is under vacuum (FIG. *7a*). When no vacuum is acting on the membrane, it remains in its neutral outward position (FIG. *7b*). The sensitivity of the membrane may be adjusted by varying the membrane thickness. Typically, the membrane is made from a material such as Buna-N, and either convex or concave, depending on whether vacuum is provided within the container. Thus, at a glance, an operator can determine if the container seal integrity has been maintained during transport or if a leak has occurred. If a more sophisticated pressure sensor is desired, a conventional analog or digital pressure indicating gauge could be used. Of course, the gauge or grommet may be placed on either the lid or container.

Utilizing the inventive solid waste container to store and transport a solid waste material such as asbestos limits exposure and discharge of fibers possible with the prior art double-bag system. In addition, the containers are stable and sized for efficient stacking in a truck or warehouse. Maintaining the containers with a negative pressure minimizes the potential release of waste materials as leaks cause air to enter rather than leave the container. Such containers, being of essentially unitary construction, are easily fabricated with integral structures for handling by fork trucks or hand trucks. Thus a low cost container of high integrity is provided which minimizes the transport and storage problems previously encountered when handling solid waste materials.

The containers of the present invention, while preferably being essentially square, can be round, rectangular or another shape. Preferably, the volume of the container is determined by the height of the container. For example a 30" by 30" by 46" container with tapered sidewalls would contain approximately 1 cubic yard of material. To provide smaller containers yet still maintain stackability, all the containers would have the same top opening size and have the same bottom size but be of varying height and taper to provide, for example, a half yard container, a third yard container, or a quarter yard container. Such containers, having tapered sidewalls would also be nestable, one within another, when empty, to minimize space requirements prior to use. Of course, larger containers are also contemplated as being within the scope of the invention. Thus, both the small and large solid waste generators would be able to take advantage of the inventive stackable solid waste container system.

While particular embodiments have been shown and described, it will be understood by those skilled in the art that the invention is not limited to only the preferred embodiments and that various changes and modifications could be made without varying from the scope of the present invention. For example, various valve types, container materials of construction, pressure sensor means or means for sealing the lid to the container can be used without varying from the scope of the present invention.

What is claimed is:

1. A waste container comprising:

a container body having an open top;

lid means disposable on the top;

means for sealing the lid to the container body; and

means for evacuating air from the sealed container, comprising a passage, extending through the con-