

Vacuum Bone-Ash Urn

BACKGROUND OF THE INVENTION

5 FIELD OF THE INVENTION

This present invention relates to a vacuum bone-ash urn, especially to a vacuum bone-ash urn that preserves bone ashes in a state of vacuum so that the ashes are kept from humidity, and employs an air layer that prevents fire or other damages to the urn.

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DESCRIPTION OF THE PRIOR ART

Bone-ash urns have traditionally been manufactured with materials in stone, clay, ceramic, wood and metal. Bone-ash urns made of stone, clay or ceramic are generally not very resistant to damages due to natural disasters of floods, fires or earthquakes. On the other hand, metal bone-ash urns, while offering good resistance to damages due to foregoing natural disasters, are at the same time vulnerable to damping that can engender mold.

Referring to Fig. 1, the conventional bone-ash urn comprises a body proper 20 and a lid 10. To store bone ashes, the ashes are placed inside the body proper 20 which is then covered and sealed tightly with the lid 10. The bone-ash urns made of stone, clay, ceramic or wood would tend to break and thereby cause the ashes to scatter in the case of fire or accidental impact of collision. On the other hand, as to bone-ash urns made of metal, because of the greater heat expansion coefficient, the metallic material tends to expand or contract due to variations in temperature and thereby causes incomplete sealing

that may subject the ashes contained within to moldy or burned conditions.

SUMMARY OF THE INVENTION

5 To improve upon the drawbacks mentioned above, the present invention improves the structure of a bone-ash urn by vacuuming its air out and installing an air-insulating layer. The vacuum state prevents damping to the bone ashes and the multiple-layered design of the air-insulating layer serves to enhance fire-resistant capability.

10 The primary objective of the present invention is to provide a vacuumable bone-ash urn which is dampness-resistant.

A further objective of the present invention is to provide a bone-ash urn with an air-insulating layer that can shield the interior of the urn against the high temperature
15 environment and thereby avoiding damage.

As counter-measures to the fact that the conventional bone-ash urns have serious drawbacks and in particular are very vulnerable to dampness and fire, the present invention offers a vacuum valve device for the bone-ash urn so that air can be extracted to
20 achieve a vacuum state for the purpose of preventing damping to the bone ashes, and employs a frame formed by a housing and a base to support and hold the bone-ash urn, and shields the urn with an air-insulating layer to prevent fire damages.

BRIEF DESCRIPTION OF THE DRAWINGS

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Figure 1: A sectional view of the conventional bone-ash urn.

Figure 2: A sectional view of the preferred embodiment of the present invention.

Figure 3: An elevated view of the housing of the preferred embodiment of the present invention.

5 Figure 4: A plane view of the base of the preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The preferred embodiment of the present invention comprises a housing 21, a base 22 and
10 an urn 1, wherein the urn 1 is comprised of a lid 11 and a body 12. In the preferred
embodiment of the present invention, a vacuum valve 13 is installed in the lid, where the
vacuum valve is a common device of prior arts, which is a one-way valve that allows air
to flow in only one direction. For instance, in the method of vacuum pressure molding
that employs the vacuum valve, air is extracted from the terminal point of the mold to
15 reduce internal pressure so that the atmospheric pressure outside can cause pressure on the
material inside the mold. In this process, comparing with the conventional pressure
molding method, the air and air pressure inside the mold are less, so the air which is
drawn into the mold tends to contract pores in the material being pressurized to smaller
sizes because of the atmospheric pressure, resulting in the final product containing less
20 pores and sturdier internal structure. Further, vacuum pressure molding requires less
processing time than that of the conventional pressure molding method, and because of
the less air, the surface of the final product oxidizes less and therefore smoother. The
jointing of lid 11 with the body 12 is accomplished by screw threads installed at the
appropriate places and bolting the two together. After the bone ashes are placed inside
25 the body 12, the lid 11 and the body 12 are tightly jointed by sealing treatment. The

sealing treatment consists of adding a soft pad to the juncture portion of the body 12 and applying resin to the screw threads of lid 11 and the body 12 and then bolting the two together. In this manner, the sealing therebetween can be tight and secured. Thereafter, air in the urn 1 can be extracted from the urn body 12 via the vacuum valve 13 installed in the lid 11 so as to maintain the interior of the urn 1 in a state of vacuum.

In another embodiment of the present invention, a protruding jointing member is installed on the vacuum valve 13 of the lid 11 and fitted with a soft pad. After the urn 1 is sealed and vacuumed, a vacuum valve lid 14 can cover and seal with resin applied on its juncture portion over the protruding jointing member of the vacuum valve 13, and the soft pad can further secure the sealing. In addition, screw threads can be effected on the vacuum valve 14 and the protruding jointing member to bolt the two securely so as to ensure and secure the vacuum state. In this manner, when the vacuum bone-ash urn of the present invention is subjected to a humid environment or submerged under water during a flood, the ashes inside would not become damped and molded. Following next is the description of the external protection mechanism of the urn 1.

The housing 21 and the base 22 of the vacuum bone-ash urn of the present invention provides protection to the urn 1 itself. The housing 21 is made of hard and sturdy material, which can be metallic material. Further, the urn 1 is contained within the interior space formed after the integration of housing 21 and the base 22. Because the interior space is slightly larger, an air-insulating layer 2 can exist between the urn 1 and the housing 21. The air-insulating layer 2 can shield the urn 1 from the influence of high temperature in case the vacuum bone-ash urn itself is subjected to a high temperature environment. Within the air insulating layer, two supporting frames 23 and 24 are

installed between the uppermost parts of both the housing 21 and the urn 1, and between the housing 21 and the base 22, to hold the urn securely within the interior space, and serves as buffer to shock. Additionally, to prevent heat transmitted from housing 21 to urn 1, the supporting frame 23 and 24 can be made with material of low heat conduction coefficient. In this manner, in case the vacuum bone-ash urn is subjected to a heat scorching environment such as in a fire, because of the air-insulating layer 2 and the supporting frames 23 and 24, it is difficult for the heat created by the high temperature to be transmitted into urn 1 and there shall not be any direct damage to the urn 1 or any loss of the vacuum state.

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Next, referring to Figs 3 and 4, in this embodiment of the present invention, two cross-shape frames 23 and 24 are installed respectively inside the uppermost part of the housing 21 and inside the base 22. The shapes of both the frames 23 and 24 fit well with the top and bottom shapes of the urn 1. The dotted outlines refer to that the urn 1 shall be placed within the outlines so that the position of the urn 1 between the housing 21 and the base 22 is more securely fixed. The design of frames 23 and 24 enables the air-insulating layer 2 to exist between the urn 1 and the housing 21 on one side, and the urn 1 and the base 22 on the other. In the preferred embodiment of the present invention, the frames 23 and 24 can be made with the material of low heat conduction coefficient and shock absorbent quality, and with the material of wood, metal, asbestos, clay or ceramic. In this manner, in case the vacuum bone-ash urn of the present invention is subjected to high temperature or strong impact, the urn 1 can be further protected.

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In addition, sculptural designs or photographs can be easily implemented on the outer surface of the housing 21 with current sculpting technology. And to accommodate to

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- various religious faiths, base 22 can be further stylized. For the Buddhist tradition, the base 22 can be designed as a lotus seat. For the Christian tradition, the cross or other Christian ornament symbols may be designed on the base 22 or on the housing 21. For the Muslim tradition, texts in the book of Koran may be carved on the housing 21. Such decorative treatments can enhance the aesthetic value of the vacuum bone-ash urn of the present invention and provide soothing comfort to the grieving family. Moreover, the urn 1 can be appropriately tagged for identification so that in case of calamity that destroys the housing 21, the tag on the urn 1 can serve as identification.
- 10 The above description of the preferred embodiment of the present invention shall enable a person skilled in this field of art to undertake various modifications and changes without departing from the scope and spirit of the claims hereof. The present invention shall not be deemed as being limited to the specific instance of embodiment described herein.
- 15 The vacuum bone-ash urn of the present invention improves upon the drawbacks associated with the conventional bone-ash urns and further provides the functions of humidity-proof, fire-resistance, collision-resistance, aesthetic and soothing the minds of the grieving family.



What is claimed is:

1. A vacuum bone-ash urn, comprising:
a housing, made of hard and sturdy material;
5 a base, integrated with said housing to define certain interior space; and
a bone-ash urn, comprised of a lid and an urn body, and contained with said interior
space; and a vacuum valve is installed on said lid, and said interior space is larger than
the volume of said bone-ash urn so that after said lid and said urn body are jointed and
sealed tightly together, a state of vacuum can be achieved in the interior of said bone-
10 ash urn via said vacuum valve.
2. A vacuum bone-ash urn as in Claim 1, wherein a vacuum valve lid is further included
to cover and seal said vacuum valve installed on said lid.
- 15 3. A vacuum bone-ash urn as in Claim 1, wherein a soft pad is fitted at the juncture of
said lid and said urn body.
4. A vacuum bone-ash urn as in Claim 1, wherein said housing is made of metallic
material.
- 20 5. A vacuum bone-ash urn as in Claim 2, wherein an air-insulating layer is formed
within said interior space.
6. A vacuum bone-ash urn as in Claim 2, wherein said bone-ash urn is supported and
25 held securely by the frames of said interior space.