

COFFIN

FIELD OF THE INVENTION

This invention relates to coffins made of wooden derivatives and has particular and not
5 exclusive use during disasters and emergencies.

BACKGROUND OF THE INVENTION

Emergencies and disasters are big concerns for the nations, not only in terms of loss of lives
10 alone, but also with regards to disposing the dead as quickly as possible to maintain
sanitation, hygiene and prevent the trigger of epidemics. Another concern may be providing
the dead a “decent” burial or cremation. Typically, in the aftermath of emergencies, body
bags are used to dispose the dead as quickly as possible. To handle someone in a body bag,
this may not be sufficient to provide someone with what may be considered a decent burial
15 and cremation. Another problem with body bags is the possibility of them tearing apart due
to rough handling. This can expose the bodies inside and result in the spread of infections
and offensive odour. Additionally, most cremators need to use a board/box for handling
body bags, as body bags are not firm and cannot support the weight of bodies when lifted.

20 The usage and manufacture of cardboard coffins is already disclosed. However, a structure
made purely of cardboard tends to be flimsy and the load carrying characteristics are not
good. This particular characteristic might lead to handling issues.

If wooden coffins are used during emergencies and are subsequently cremated, the coffin
25 takes a long time to burn, the burning time being a function of the type of wood used. This
will not be preferred as there may be lot of bodies for cremation. Moreover with wooden

coffins, there will be issues with their storage and transportation because of their bulky nature and weight.

5 Wooden coffins, even if they are transported in a disassembled state will take a long time to be assembled. In some cases, additional equipments like a jig might also be required if numerous coffins are to be assembled in a short span of time.

SUMMARY

10 The invention is defined in the independent claim. Some optional features of the invention are defined in the dependent claims.

BRIEF DESCRIPTION OF THE DRAWINGS

15 The accompanying drawings illustrate the invention, by way of example only and together with the description, serve to explain the principles of the invention.

Figure 1a is a plan view of a first coffin

20 Figure 1b is a plan view of a second coffin with a double wall

Figure 2 is an elevation view of any of the coffins of Figure 1a to 1b with a base

Figure 3a is a plan view of the coffin if Fig 1a with a reinforcing layer

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Figure 3b is a plan view of the coffin in Fig 1b with a reinforcing layer

Figure 4a is a cross section of a single ply carton box material

Figure 4b is a cross section of a double ply carton box material

5 Figure 5a is a view of a first underside of a lid of any of the coffins of Figure 1a to 1b

Figure 5b is a view of a second underside of a lid of any of the coffins of Figure 1a to 1b

Figure 6 is an elevation view of any of the coffins of Figure 1a to 1b with the fluid
10 impermeable tray

DETAILED DESCRIPTION

Figure 1a is a plan view of a first coffin. The coffin has a first side wall **5**, a second side wall
15 **10**, a first end wall **15** and a second end wall **20**. The side walls and end walls of the coffin
are made of carton box material. Alternatively, they may be made of other wooden
derivatives such as cardboard, composite wood, hardboard etc. **Figure 1a** illustrates a
rectangular coffin, but it can be of any shape.

20 **Figure 1b** is a plan view of a second coffin. The coffin has a first side wall **25**, a second side
wall **30**, a first end wall **35** and a second end wall **40**. Each of the walls indicated above
comprise a double wall with a gap **41** between the two layers of the wall. The purpose of the
gap will be described hereinafter. The side walls and end walls of the coffin are made of
carton box material. Alternatively, they may be made of other wooden derivatives such as
25 cardboard, composite wood, hardboard etc. **Figure 1b** illustrates a rectangular coffin, but it
can be of any shape.

Figure 2 is an elevation view of any of the above coffins shown with a base. The base **50** is a composite base and is made of either carton box material and wood or wooden derivatives and wood. Additionally, the composite base may also contain plastic. The different materials are arranged in layers. The layers may be arranged in any suitable order. The advantage
5 provided by the composite base is that it reinforces the structure of the coffin to support the weight of the body inside the coffin. A base made only of carton box material or cardboard will not be able to support the weight of the body inside the coffin. The first and the second coffin each have a top end **51** as illustrated in **Fig 2**, the top end **51** comprising the upper edges of the walls **5**, **10**, **15** and **20** of the first coffin and the walls **25**, **30**, **35** and **40** of the
10 second coffin.

Figure 3a is a plan view of the first coffin with a first and second reinforcing layer. As illustrated in **Figure 3a**, a first reinforcing layer **55** is positioned adjacent the first side wall **5** and the second side wall **10**. Moreover, a second reinforcing layer **60** is positioned adjacent
15 the first end wall **15** and the second end wall **20**. The reinforcing layers **55** and **60** are made of carton box material, which may be a single ply carton box material or a double ply carton box material. A single ply and a double ply carton box material are illustrated in **Figure 4a** and **Figure 4b**. A double ply carton box material is stronger and sturdier than a single ply carton box material. The reinforcing layers may be fastened to the side and end walls by
20 suitable fastening materials such as glue, screws or other mechanical fasteners. Alternatively, the reinforcing layers can also be made of plastic or wooden derivatives such as cardboard, composite wood, hardboard etc. The reinforcing layers are adapted to reinforce the structure of the coffin to support the weight of the body inside the coffin. The positioning of the reinforcing layers is not limited to the above arrangement alone. The
25 reinforcing layers can be arranged in any suitable way which provides structural reinforcement to the coffin.

Moreover, apart from the first and second reinforcing layers which span the side walls and end walls of the coffin, there are corner reinforcing strips **56**, **57**, **58** and **59** which are arranged to reinforce only the corners of the first coffin. These are elongated thin strips that fit in the corner between a reinforcing layer spanning the side wall and a reinforcing layer spanning the end wall. The reinforcing strips extend from the top end **51** to the base **50** of the coffin. These may be made of the same material as the first and second reinforcing layers **55** and **60**. The corners also have to be reinforced along with the side walls and the end walls to prevent any weakness from developing in the corners. Weaknesses can cause the coffin structure to collapse. Alternatively, the reinforcing layers can be arranged such that it covers the corners as well, such as a type of a reinforcing layer which spans a side wall and an end wall partially, passing through an intersecting corner. The other type may be a reinforcing layer that spans two end walls partially and a side wall completely. Yet another type may be a reinforcing layer that spans two side walls partially and an end wall completely.

Figure 3b is a plan view of the second coffin with a third and fourth reinforcing layer. As illustrated in **Figure 1b**, the gap **41** between the two layers of the first and second side wall **25** and **30** holds a third reinforcing layer **65**. Similarly, the gap **41** between the two layers of the first and second end walls **35** and **40** serves to hold a fourth reinforcing layer **70**. The reinforcing layers are made of carton box material, which may be a single ply carton box material or a double ply carton box material. A single ply and a double ply carton box material are illustrated in **Figure 4a** and **Figure 4b**. Alternatively, the reinforcing layers can also be made of plastic or wooden derivatives such as cardboard, composite wood, hardboard etc. The reinforcing layers are adapted to further reinforce the structure of the coffin to support the weight of the body inside the coffin.

Moreover, apart from the third and fourth reinforcing layers which span the side walls and end walls of the coffin, there are corner reinforcing strips **66**, **67**, **68** and **69** which are arranged to reinforce only the corners of the second coffin. These are elongated thin strips that fit in the corner between a reinforcing layer spanning the side wall and a reinforcing layer spanning the end wall. The reinforcing strips extend from the top end **51** to the base **50** of the coffin. These may be made of the same material as the first and second reinforcing layers **65** and **70**. The corners also have to be reinforced along with the side walls and the end walls to prevent any weakness from developing in the corners. Weaknesses can cause the coffin structure to collapse. Alternatively, the reinforcing layers may be arranged such that it covers the corners as well, such as a type of a reinforcing layer which spans a side wall and an end wall partially, passing through the intersecting corner. The other type may be a reinforcing layer that spans two end walls partially and a side wall completely. Yet another type may be a reinforcing layer that spans two side walls partially and an end wall completely.

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Figure 5a illustrates the underside of a lid **71** of the first coffin or the second coffin. The structure comprises a single block **75** made of any material like cardboard or wood. The block is such that when attached to the underside of the lid, it causes a gap **80** to be created between edges **72** of the block **75** and edges **73** of the lid **71**, such that the gap receives the top end **51** of the coffin. This feature provides a further structural enhancement of the coffin when it is being carried by creating a good fit between the lid and the top end of the coffin. Alternately, the block can also be in the form of a multitude of pieces as is illustrated in **Figure 5b**, wherein the gap **80** is created. The shape and arrangement of the blocks are not limited by the above mentioned structures alone. The lid is made of either cardboard or carton box material or wood.

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Figure 6 illustrates a fluid impermeable tray **85** being a platform on which the coffin is placed. The tray is fluid impermeable to prevent fluids from outside damaging the base of the coffin. The fluid impermeable tray is made of materials such as plastic etc. The tray can also be used as a cover for the coffin to view the deceased.

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It is to be understood that the foregoing description of several preferred embodiments is intended to be purely illustrative of the principles of the invention, rather than exhaustive thereof, and that changes and variations will be apparent to those skilled in the art, and that the present invention is not intended to be limited other than as expressly set forth in the

10 following claims.

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CLAIMS

1. A coffin comprising:
 - a first end wall;
 - a second end wall;
 - a first side wall;
 - a second side wall; and
 - a composite base; wherein each of the first side wall, second side wall, first end wall and the second end wall includes a double wall with a gap for receiving a reinforcing layer.
2. The coffin as claimed in Claim 1, the composite base comprising carton box material and wood.
3. The coffin as claimed in Claim 1, the composite base comprising wooden derivative and wood.
4. The coffin as claimed in Claims 2 or 3, wherein the composite base further includes plastic.
5. The coffin as claimed in Claim 1, 2, 3 or 4, comprising a first reinforcing layer adjacent the first side wall and the second side wall.
6. The coffin as claimed in Claim 5, comprising a second reinforcing layer adjacent the first end wall and the second end wall.
7. The coffin as claimed in Claim 5 or 6, comprising reinforcing strips in the corners of the coffin.
8. The coffin as claimed in Claim 5, wherein the first reinforcing layer is being arranged to extend to any one of the first end wall and the second end wall by passing through an intersecting corner.
9. The coffin as claimed in Claim 6, wherein the second reinforcing layer is being arranged to extend to any one of the first side wall and the second side wall by passing through an intersecting corner.
10. The coffin as claimed in Claim 1, comprising a third reinforcing layer positioned in the gap of the first side wall and the gap of the second side wall.
11. The coffin as claimed in Claim 1, comprising a fourth reinforcing layer positioned in the gap of the first end wall and the gap of the second end wall.
12. The coffin as claimed in Claim 10 or 11, comprising reinforcing strips in the corners of the coffin.

13. The coffin as claimed in Claim 10, wherein the third reinforcing layer is being arranged to extend to any one of the first end wall and the second end wall by passing through an intersecting corner.
14. The coffin as claimed in claim 13, wherein the third reinforcing layer spans the first and second side walls partially and one of the first end wall and the second end wall completely.
15. The coffin as claimed in Claim 11, wherein the fourth reinforcing layer is being arranged to extend to any one of the first side wall and the second side wall by passing through an intersecting corner.
16. The coffin as claimed in Claim 15, wherein the fourth reinforcing layer spans the first and second end walls partially and one of the first side wall and the second side wall completely.
17. The coffin as claimed in claims 5 to 9 and claims 10 to 16, the reinforcing layer comprising any one of a double ply carton box material, single ply carton box material, wooden derivative and plastic.
18. The coffin as claimed in any of the preceding claims, the coffin having a lid with an underside, the underside having a structure being arranged on the underside to create a gap for receiving a top end of the coffin.
19. The coffin as claimed in any one of the preceding claims, comprising a fluid impermeable tray, the fluid impermeable tray being a platform for the coffin.
20. The coffin as claimed in any one of the preceding claims wherein the first and second side walls, and the first and second end walls are made of one of: carton box material, cardboard, composite wood and hardboard.
21. A cardboard coffin comprising:
 - a first end wall;
 - a second end wall;
 - a first side wall;
 - a second side wall; and
 - a base;wherein each of the first side wall, second side wall, first end wall and the second end wall includes a double wall with a gap for receiving a reinforcing layer.

22. The cardboard coffin as claimed in claim 21 wherein the first and second side walls, and the first and second end walls are made of one of: carton box material, cardboard, composite wood and hardboard.