EVIDENCE STORAGE CONTAINER

Inventors: Harry Joseph Elston, Dawson, IL (US); Stewart Lee Mosher, Pompano Beach, FL (US)

Correspondence Address:
WILLIAM J. MASON
MACCORD MASON PLLC
POST OFFICE BOX 1489
WRIGHTSVILLE BEACH, NC 28480 (US)

Assignee: W.R. Rayson Co., Inc.

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ABSTRACT

A container is provided for use in storing evidence while reducing exposure of the evidence to airborne contaminants. The container includes an inner lidded box to enclose the evidence, and an outer lidded box to enclose the inner box. Each box includes at least one wall with a ventilation opening, with the walls with ventilation openings being separated by a given distance. An air filter is positioned between the walls with ventilation openings, so that air entering the inner box must pass through the ventilation openings and the filter, thereby minimizing the entry of airborne contaminants into the inner box.
EVIDENCE STORAGE CONTAINER

BACKGROUND OF THE INVENTION

[0001] (1) Field of the Invention
The present invention relates to containers for use in storing items which may be evidence in criminal investigations, and in particular to evidence storage containers that isolate the stored items from exposure to mildew and other airborne contaminants that could cause deterioration of the stored items.

[0002] (2) Description of the Prior Art
In order to establish the chain of custody of a piece of evidence to be admissible in court, the evidence is often temporarily stored in a secure storage facility. The manner in which the items are stored will depend on the type of material. Unless the item has unique properties requiring special storage precautions, e.g., hazardous items or items requiring cold storage, it is often possible for economical reasons to simply store the items in a disposable cardboard container, provided that the container is held within a secure area.

[0003] However, since temporary storage may extend over several days or even weeks, there is a risk that the stored items, e.g., clothing, may be damaged due to exposure to airborne mildew, mold and other contaminants. Reduction of this risk without significantly increasing the cost of the container would greatly extend the usability of disposable cardboard containers for evidence storage.

SUMMARY OF THE INVENTION

[0005] The present invention relates to a container for use in storing evidence while reducing exposure of the evidence to airborne contaminants. Generally, the container is comprised of an inner lidded box to enclose the evidence; an outer lidded box to enclose the inner box, and at least one air filter positioned between an outer wall of the inner box and an inner wall of the outer box. The adjacent walls of the boxes include ventilation openings, permitting air to flow between the boxes through the filter. The boxes may be economically constructed of paper material, e.g., cardboard. Preferably, the boxes are collapsible boxes so that they can be easily stored when not in use.

[0006] The filter is preferably a rectangular filter with an outer frame and a backing of fibrous material capable of capturing mildew and mold spores and other airborne contaminants that is surrounded by a rectangular frame having a given width, height and thickness. A suitable filter is the type used in home air conditioning filters.

[0007] To hold the filter securely between the adjacent walls of the inner and outer boxes, the spacing of the walls between which a filter is placed is preferably equal to the thickness of the filter. Similarly, the width and height dimensions of the filter may generally correspond to the width and height of the inner wall of the outer box so that the filter will not shift from between the ventilation openings of the boxes during use.

[0008] More than one wall may be ventilated and more than one filter may be used in the container. For example, the side walls and end walls of the inner box can be spaced from the corresponding side and end walls by distances equal to the thickness of the filters. Four filters can then be used in the container, with one filter being positioned against the outer surface of each inner box side or end wall and inner surface of the corresponding outer box wall.

[0009] Box wall ventilation openings are preferably in the form of sections defined by continuous perforations that can be punched out when the boxes are being set up for use.

As the term is used herein, a “ventilation opening” encompasses the opening before or after the perforated section is removed.

[0011] The ventilation openings may be offset from each other so that air flowing between the ventilation openings will be directed through a larger part of the filter. For example, the inner box can include two spaced ventilation openings in each wall while the outer box includes three ventilation openings positioned so that the longitudinal axes of the outer wall ventilation holes extend between the inner wall ventilation openings.

[0012] When used, the inner and outer boxes are assembled if necessary, and the inner box is placed inside the outer box so that there is spacing between at least one, and preferably all, of the outer surfaces of the inner box wall and the inner surfaces of the outer box walls. Rectangular filters are then inserted between the inner and outer box walls. The items to be stored are then placed in the inner box and the inner box lid is closed. The outer box lid is then closed. During storage, air can only circulate between the exterior of the container and the interior of the inner box through the ventilation holes in the boxes and the filter between the boxes, thereby reducing contamination of the stored items by mildew spores and other airborne contaminants.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] FIG. 1 is an exploded perspective view of an evidence storage container.

[0014] FIG. 2 is a top view of an evidence storage container with the box lids open.

[0015] FIG. 3 is a sectional side view of an evidence storage container with the box lids open.

DETAILED DESCRIPTION OF THE INVENTION

[0016] In the following description, terms such as horizontal, upright, vertical, above, below, beneath, and the like, are used solely for the purpose of clarity in illustrating the invention, and should not be taken as words of limitation. The drawings are for the purpose of illustrating the invention and are not intended to be to scale.

[0017] As best illustrated in FIG. 1, a preferred embodiment of evidence storage container, generally 10, is comprised of an outer box 12, an inner box 14, side wall filters 16 and end wall filters 18. Boxes 12 and 14, which are preferably collapsible cardboard boxes, are similar in structure except for their size. The placement of ventilation openings 20 may also differ.

[0018] Box 12 is comprised of side walls 22 and 24, end walls 26 and 28, and a closable lid or top 30. Parallel side walls 22 and 24 include a plurality of ventilation openings 20 in a first given array. End walls 26 and 28 also include a plurality of ventilation openings 20 in a second given array. End walls 26 and 28 also include hand grip openings 32 to aid in lifting the boxes.

[0019] Box 14 is comprised of side walls 34 and 36, end walls 38 and 40, and a closable lid or top 42. Parallel side walls 34 and 36 include a plurality of ventilation openings 20 in a third given array. End walls 38 and 40 also include a plurality of ventilation openings 20 in a fourth given array. End walls 38 and 40 may also include hand grip openings 44.

[0020] As illustrated, ventilation openings 20 in side walls 22 and 24 of box 12 may be aligned with ventilation openings 20 in side walls 34 and 36 of box 14, i.e., the first given array is the same as the third given array. As shown, ventilation openings 20 in end walls 26 and 28 of box 12 are not aligned with ventilation openings 20 in end walls 38 and 40 of box 14, i.e., the second array is different from the fourth array, both in the number of openings and their positioning. It will be under-
stood that the arrays of ventilation openings in adjacent walls, both side walls and end walls, may be aligned or offset. Side wall filters 16, which may be disposable filters of the type commonly used in air conditioning systems, are comprised of an outer frame 46 with an open center, and a batting of filtration media 48 spanning the frame opening. Similarly, end wall filters 18 are comprised of an outer frame 50 and a batting of filtration media 52.

In use, material to be stored is placed within box 14 and lid 42 is closed. Box 14 is then placed within box 12. Filters 16 are then placed between walls 22 and 34 and between walls 24 and 36. Filters 18 are placed between walls 26 and 38 and between walls 28 and 40. As a result, any ventilation air must pass through one of the filters, thereby minimizing the contamination of the stored contents by airborne contaminants.

The dimensions of the filters are such that all ventilation openings are covered. Preferably, the dimensions of the filters are substantially the same as the inner dimensions of the outer walls against which they are positioned. As shown, the width and height dimensions of filters 16 are the same as the inner dimensions of walls 22 and 24. The height dimensions of filters 18 are the same as the inner height of walls 26 and 28, while the widths of filters 18 are substantially the same as the widths of walls 26 and 28, being only slightly shorter due to the widths of filters 16. It will be understood that the invention works equally well if filters 18 extend the entire width of walls 26 and 28 with filters 16 being slightly shorter to accommodate filters 18.

The length of box 14 is substantially equal to the inner length of box 12, less the thicknesses of the two filters 18. Similarly, the width of box 14 is substantially equal to the inner width of box 12, less the thickness of filters 16. The height of box 14 is substantially equal to the inner height of box 12 when the lid of box 14 is closed, maximizing storage space and minimizing airflow between the boxes.

Certain modifications and improvements will occur to those skilled in the art upon a reading of the foregoing description. For example, a container can be constructed with fewer filters and ventilation openings than are shown in the preferred embodiment, e.g., the container can have only one side wall or end wall filter, or no side wall or end wall filters. It should be understood that all such modifications and improvements have been deleted herein for the sake of conciseness and readability but are properly within the scope of the following claims.

What is claimed is:

1. A container for use in storing evidence while minimizing exposure of the evidence to airborne contaminants comprising:
   a) an inner lidded box having at least one ventilation opening;
   b) an outer lidded box enclosing the inner box, said outer box having at least one ventilation opening; and
   c) an air filter positioned between said inner box ventilation opening and said outer box ventilation opening.

2. The container of claim 1, wherein said inner and outer boxes are cardboard boxes.

3. The container of claim 1, wherein said inner and outer boxes are collapsible boxes.

4. The container of claim 1, wherein said ventilation openings are aligned.

5. The container of claim 1, wherein said ventilation openings are offset.

6. The container of claim 1, wherein said inner and outer boxes include side walls with ventilation openings and said filter is positioned between the ventilation openings in the side walls of the boxes.

7. The container of claim 1, wherein said inner and outer boxes include end walls with ventilation openings and said filter is positioned between the ventilation openings in the end walls of the boxes.

8. The container of claim 1, wherein said ventilation opening is comprised of a removable perforated wall section.

9. A container for use in storing evidence while reducing exposure of the evidence to mold and mildew comprising:
   a) an inner lidded box for enclosing the evidence, said inner box having at least one wall with a plurality of ventilation openings;
   b) an outer lidded box enclosing the inner box, said outer box having at least one wall with a plurality of ventilation openings; and
   c) an air filter positioned between said inner and outer box side walls.

10. The container of claim 9, wherein said ventilation openings are comprised of circular perforated sections of said walls.

11. The container of claim 9, wherein said filter has a given thickness and said side walls are separated by a distance equal to said given thickness.

12. The container of claim 9, wherein said outer box wall has a given inner height and said inner box has a height substantially equal to said given inner height.

13. The container of claim 9, wherein said inner and outer boxes include side walls and end walls, said inner box walls being spaced from the walls of said outer box, said container including filters between the side and end walls of said inner box and the side and end walls of said outer box.

14. The container of claim 9, wherein said ventilation openings in said outer wall are aligned with the ventilation openings in said inner wall.

15. A method of storing evidence while minimizing exposure of the evidence to airborne contaminants comprising:
   a) enclosing the evidence in an inner lidded box having a wall with at least one ventilation opening;
   b) placing the inner lidded box inside an outer lidded box that has a wall with at least one ventilation opening; and
   c) positioning an air filter between the ventilation openings in said inner and outer boxes, whereby external air entering the inner box passes through said filter.

16. The method of claim 15, wherein said inner and outer boxes have side walls and said ventilation openings are in the side walls of said boxes.

17. The method of claim 15, wherein said inner and outer boxes have end walls and said ventilation openings are in the end walls of said boxes.

18. The method of claim 15, wherein the inner and outer boxes each have a plurality of ventilation openings, the openings of the inner box being offset from the openings of the outer box.

19. The method of claim 15, wherein said inner box has at least one wall spaced from a wall of said outer box by a given distance, said filter having a thickness substantially equal to said given distance.

20. The method of claim 15, wherein said inner box includes at least one side wall with openings and at least one end wall with openings, and said outer box includes at least one side wall with openings and at least one end wall with openings, said method including placing a first filter between the end walls of said boxes, and a second filter between the said walls of said boxes.