



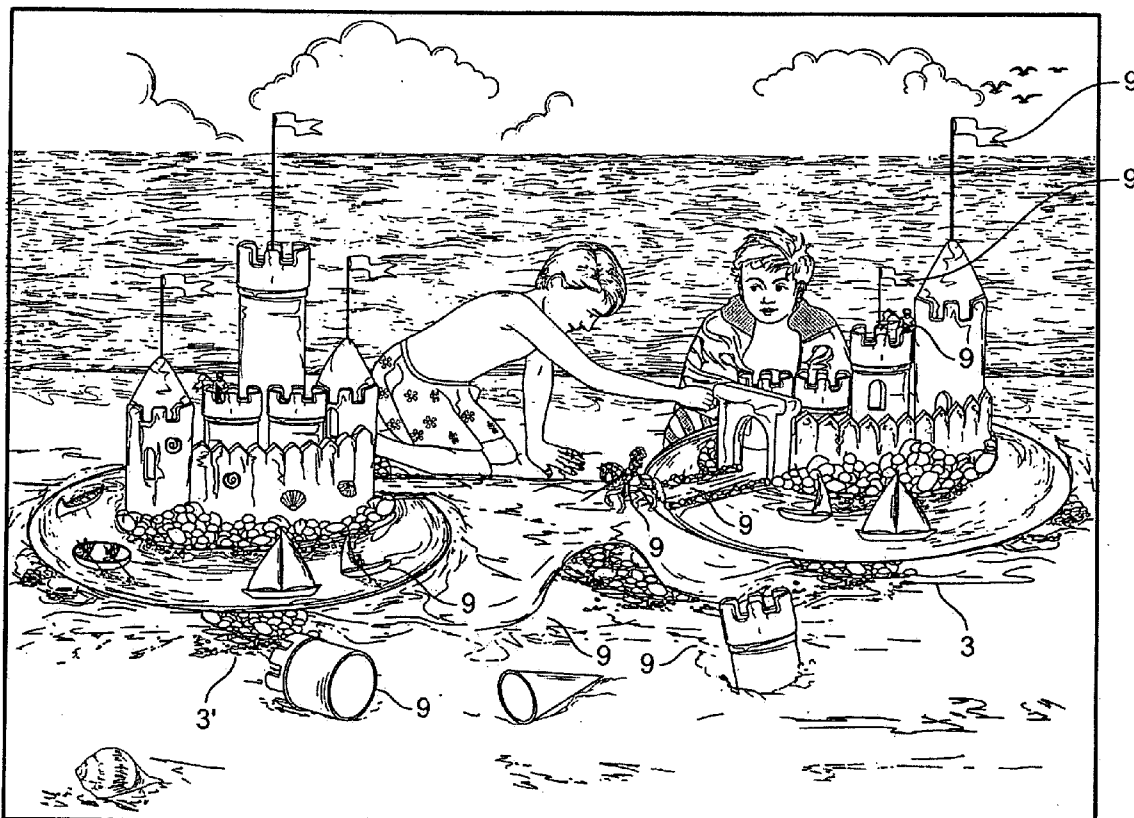
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(19) **United States**(12) **Patent Application Publication**  
**Buckley**(10) **Pub. No.: US 2005/0277357 A1**(43) **Pub. Date: Dec. 15, 2005**(54) **SAND CASTLE BUILDING AID**(52) **U.S. Cl. .... 446/70**(76) **Inventor: Karen Fitzgerald Buckley, Cotuit, MA**  
**(US)**(57) **ABSTRACT**

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**FISH & RICHARDSON PC****P.O. BOX 1022****MINNEAPOLIS, MN 55440-1022 (US)**(21) **Appl. No.: 11/150,901**(22) **Filed: Jun. 13, 2005****Related U.S. Application Data**(60) **Provisional application No. 60/579,315, filed on Jun.**  
**14, 2004.****Publication Classification**(51) **Int. Cl.<sup>7</sup> ..... A63H 33/32**

A sand castle building aid assembly includes a sand castle building aid with first and second body portions, each having an inner concave surface and an outer convex surface. The body portions are releasably fastenable together along inner and outer peripheral edges to form an assembly body with the inner concave surfaces opposed and together to defining a sand toy volume. At least one sand castle building toy is removably stored and transported within the volume, preferably secured by cooperative storage clips for ease of storage during transport to and from the location of use. During use, the portions of the assembly body are separated and the sand castle building toys are removed. The toys and assembly body portions are then used to build sand castles and moats. A method of building sand castles is also described.



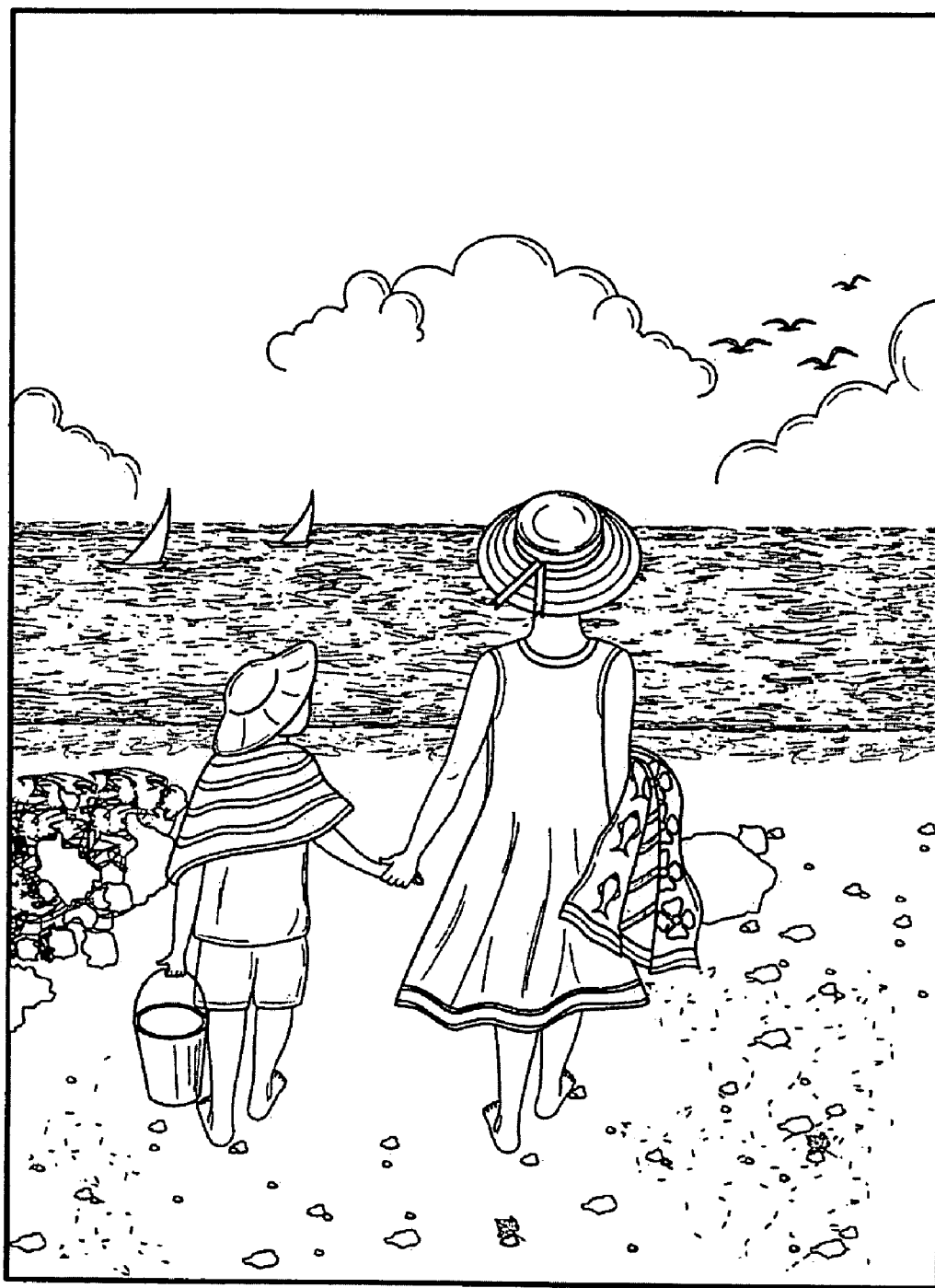


FIG. 1  
(Prior Art)

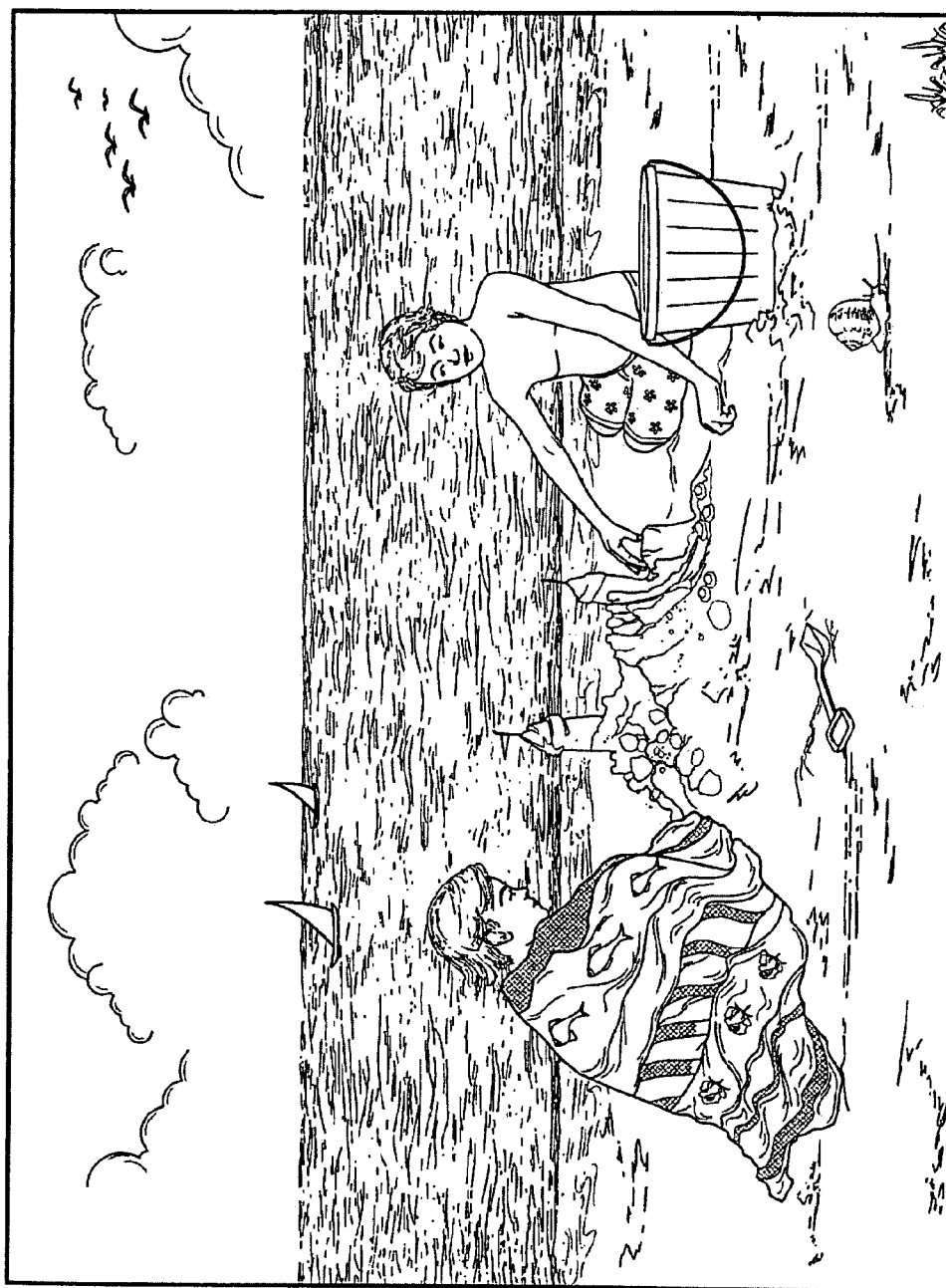


FIG. 2  
(Prior Art)

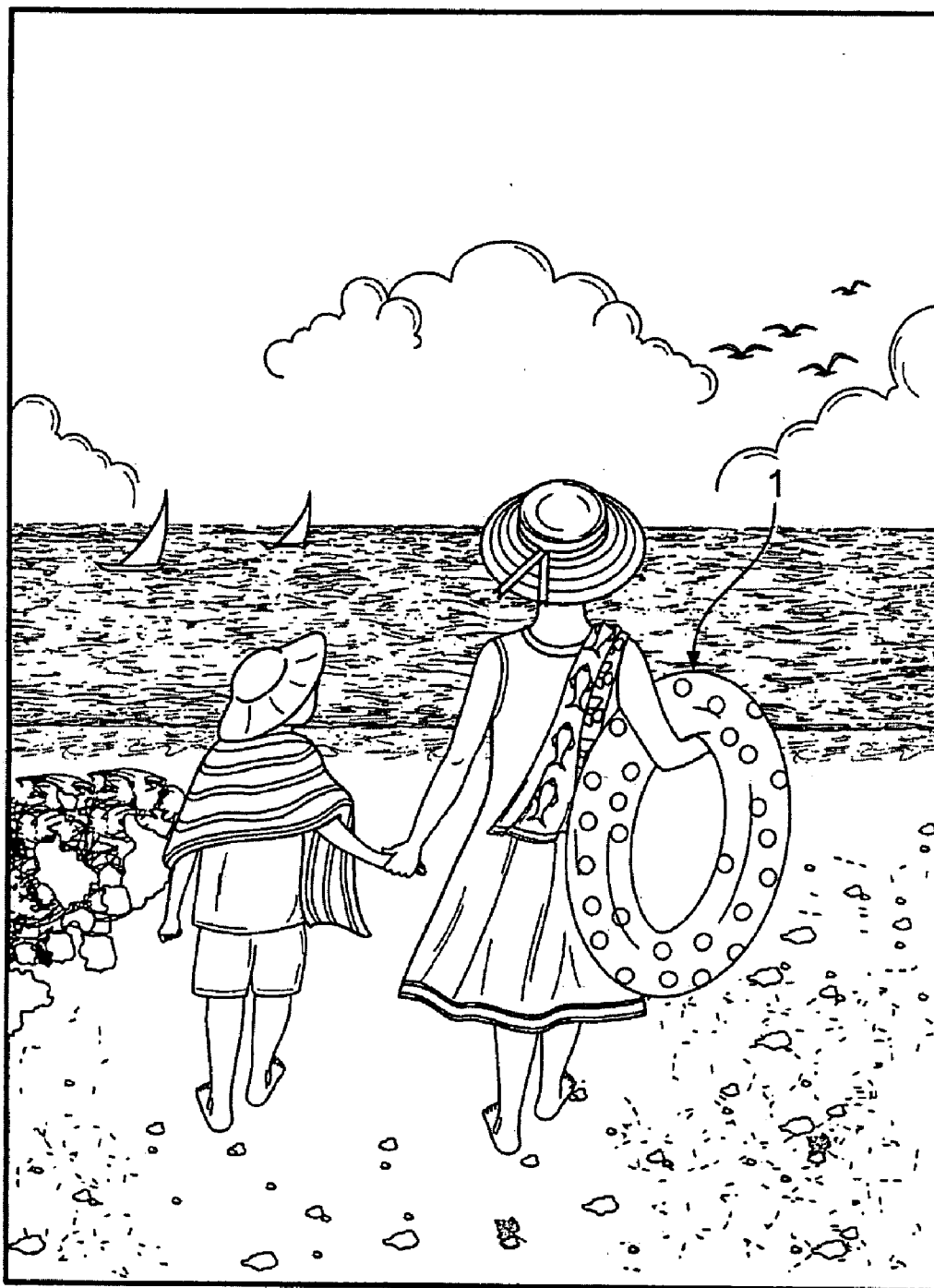


FIG. 3

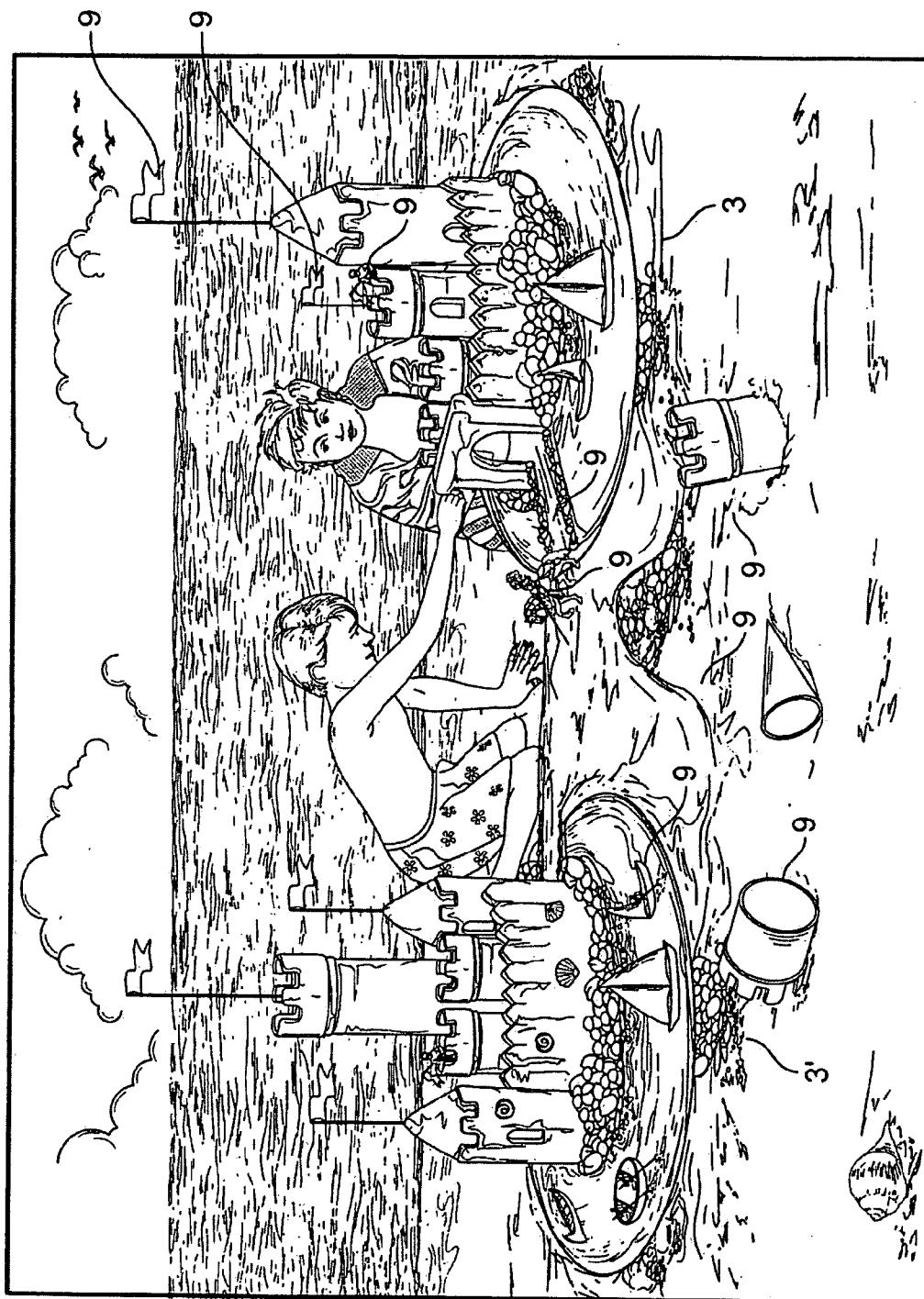


FIG. 4

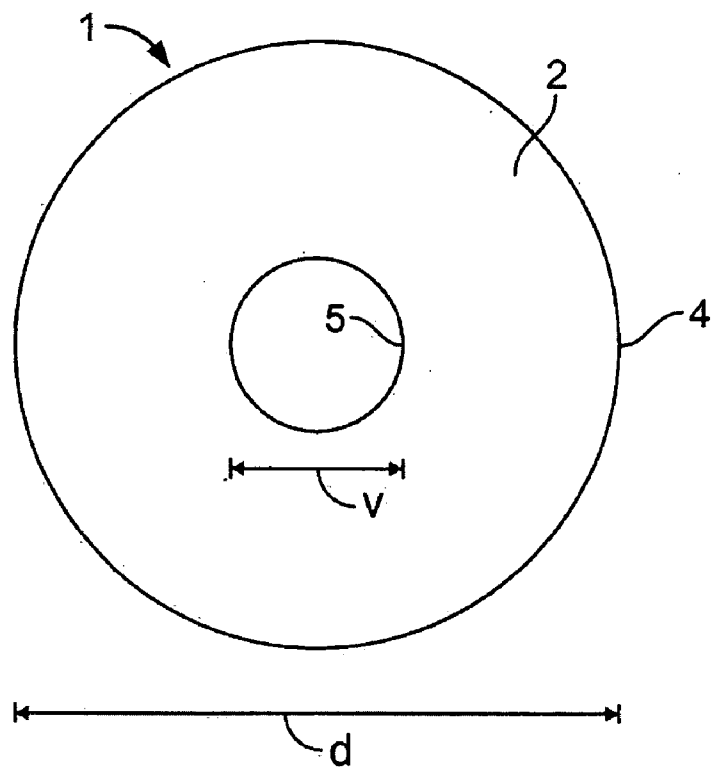


FIG. 5

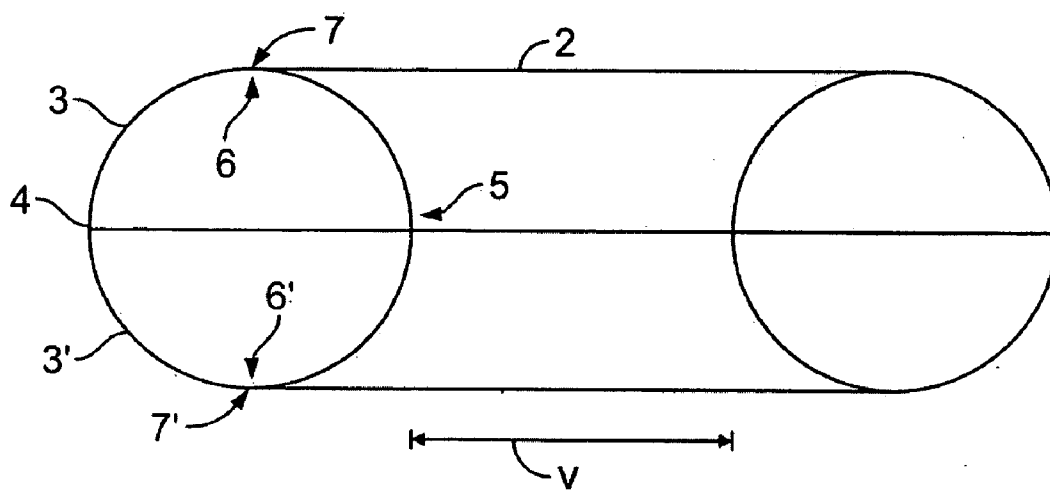


FIG. 6

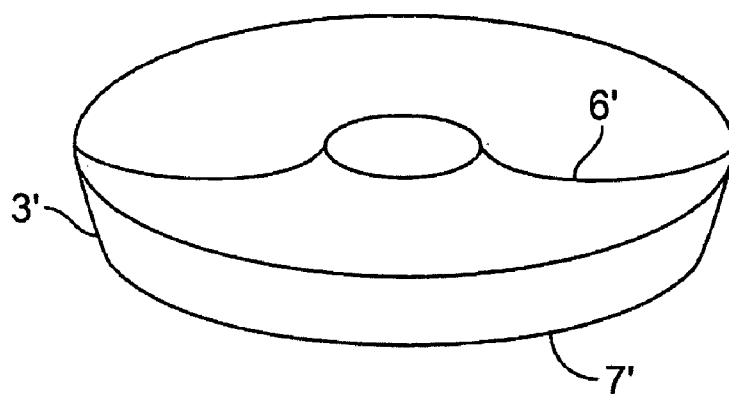


FIG. 7

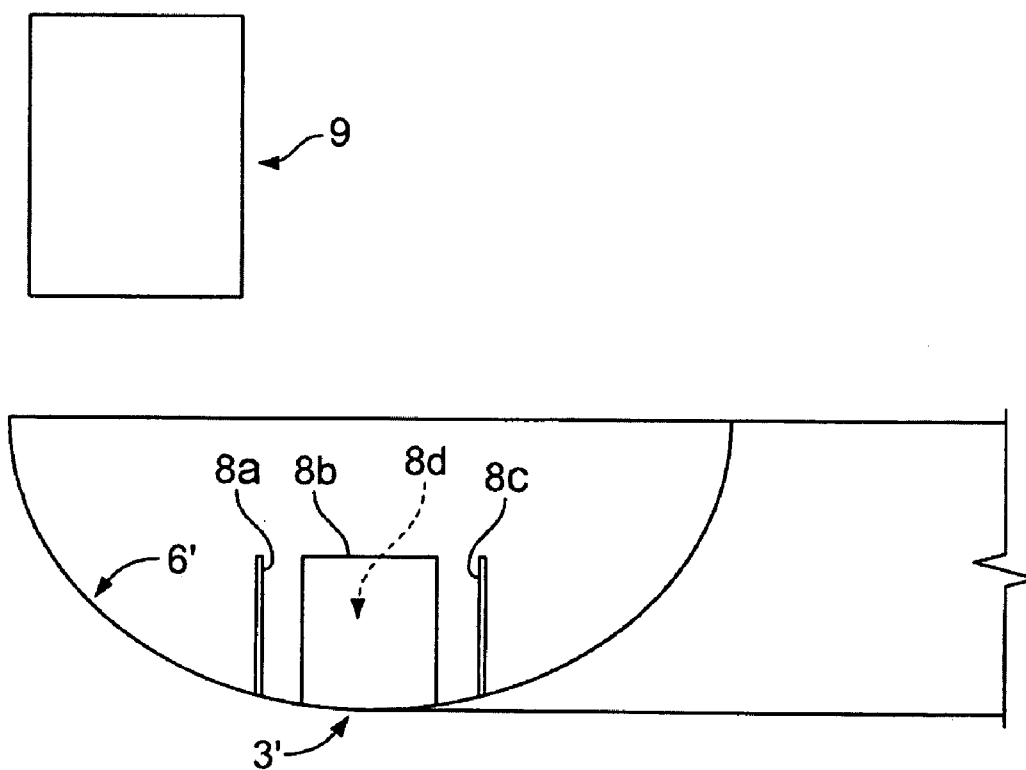


FIG. 8

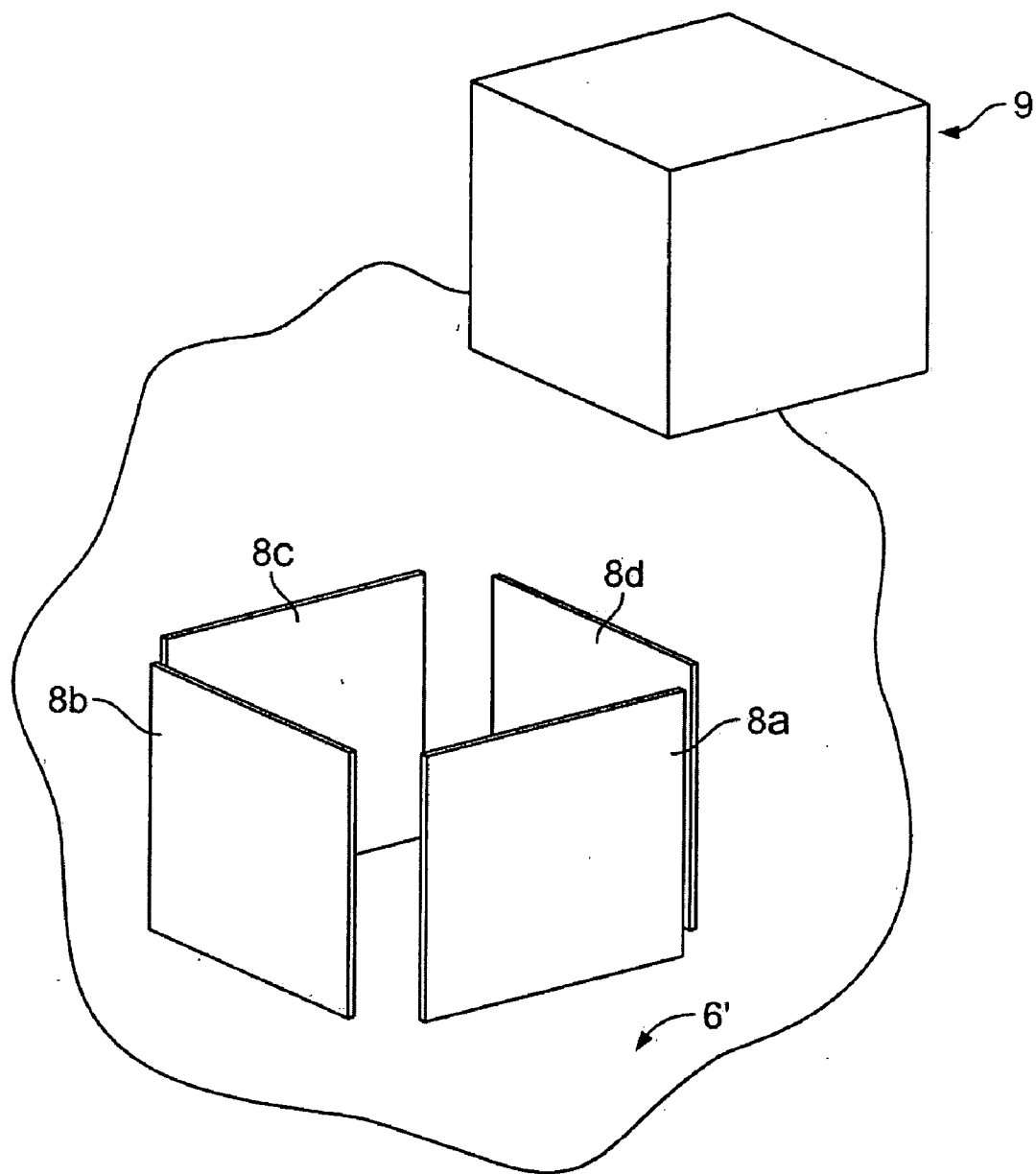


FIG. 9



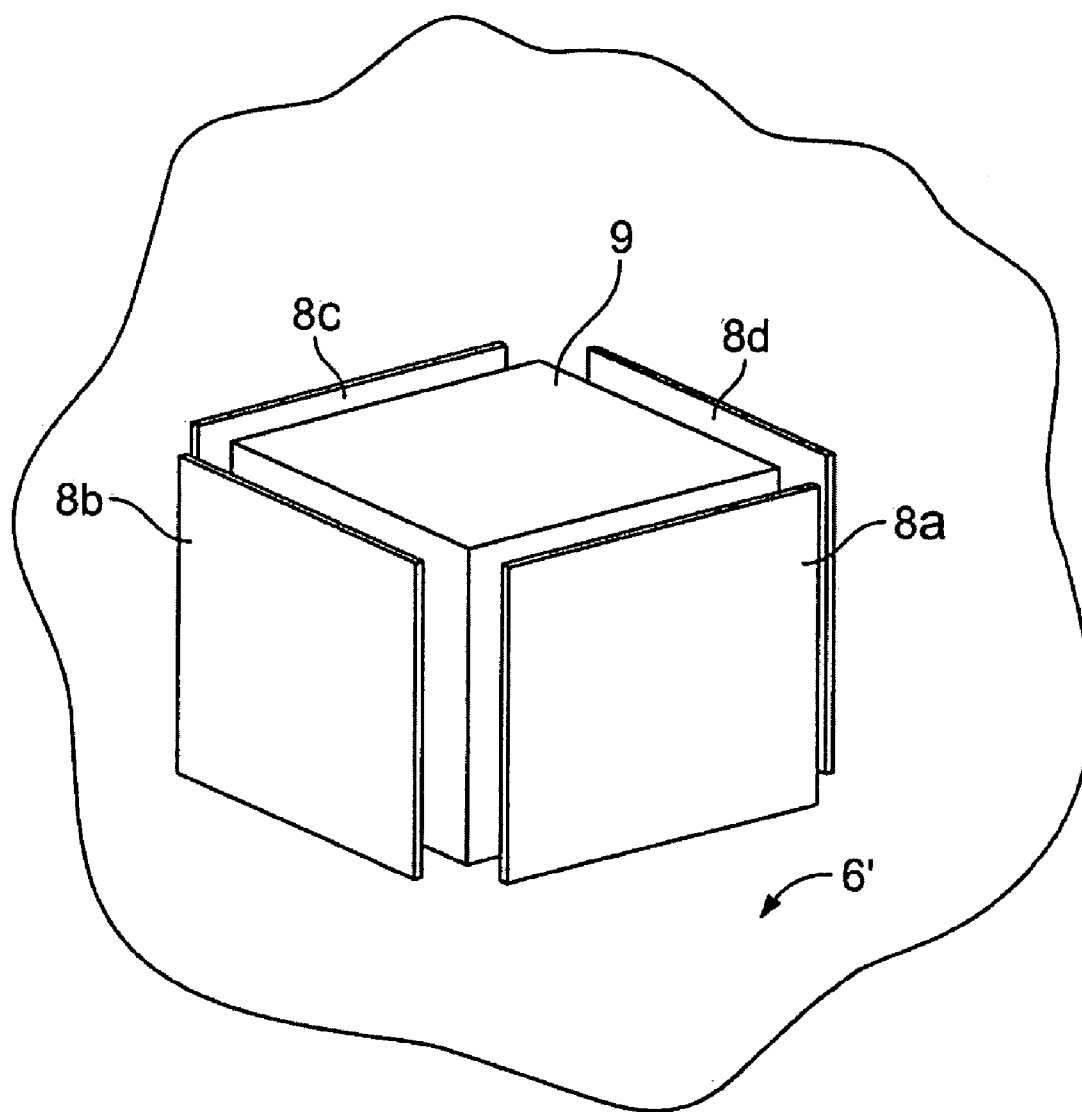


FIG. 10

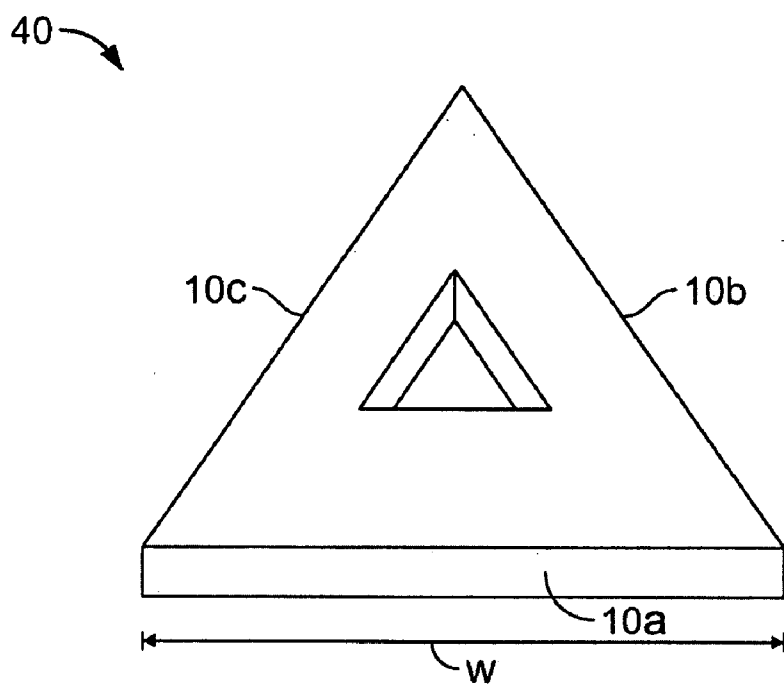


FIG. 11

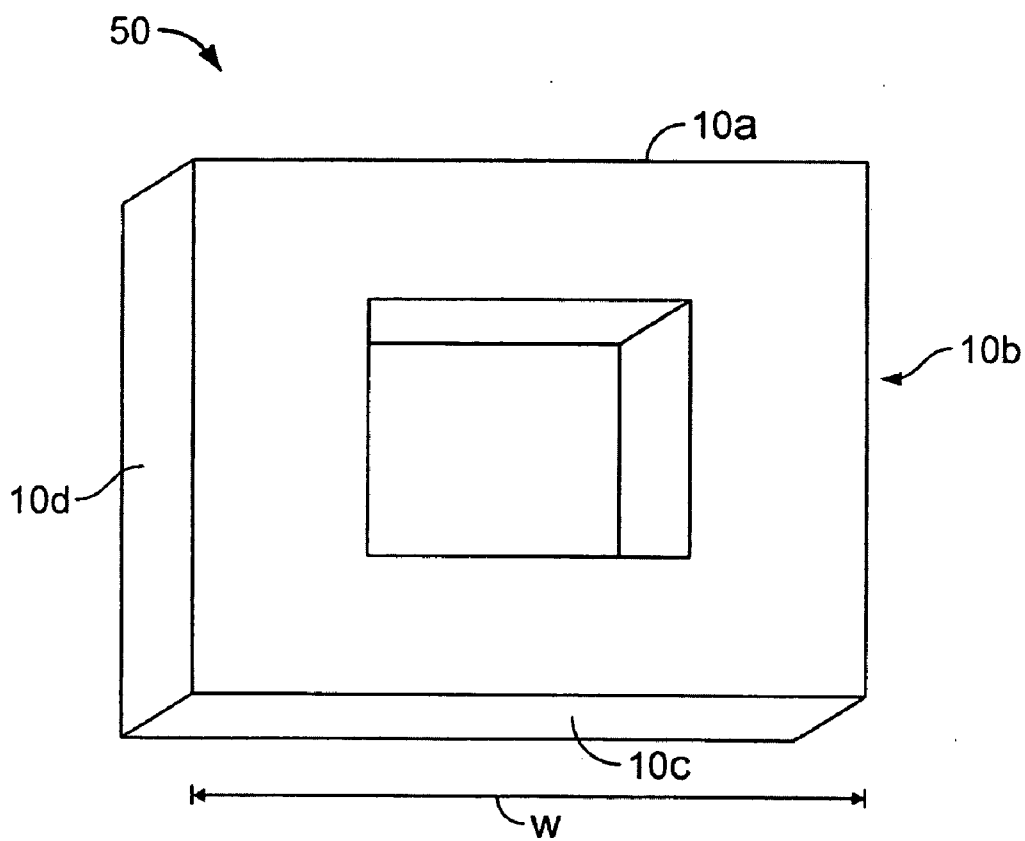


FIG. 12

## SAND CASTLE BUILDING AID

### CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. provisional application No. 60/579,315 filed Jun. 14, 2004.

### TECHNICAL FIELD

[0002] This invention relates to beach toys and sand castle building aids.

### BACKGROUND

[0003] Recreation activities involving creating structures from sand are well known to the public. Typically called "sand castles," these structures are sometimes made with the aid of tools such as shovels, buckets, or molds that a child or other person uses to manipulate the sand and create a structure.

[0004] One problem with toys of this nature is that they are easily lost during transportation to and from the beach or sandy play area. Small pails typically do double duty as both items used to manipulate sand and carry water, and as a carrier for transporting shovels and other toys. However, a person can still easily lose items loosely carried in a pail. In the example of the prior art shown in **FIG. 1** and **FIG. 2**, the pail brought to the beach carried by the hinged handle can easily be lost.

### SUMMARY

[0005] This invention features a sand castle building aid that includes a hollow tube formable into any number of shapes for storage of sand castle building toys and for building sand castle environments.

[0006] According to one aspect of the invention, a sand castle building aid comprises a contiguous hollow tube surrounding a void, the tube comprising an upper half portion and a lower half portion releasably connected generally around an inner and outer perimeter of the tube, the upper and lower half portions having an interior and exterior side, and at least one of the upper or lower half portions having storage clips extending from the interior side of the half portion for the releasable storage of sand castle building toys.

[0007] Preferred embodiments of this invention may include one or more of the following additional features. The outer perimeter of the contiguous hollow tube is shaped as an ellipse. The outer perimeter of the contiguous hollow tube comprises 3 or more facets. Both the upper and lower portions have storage clips extending therefrom for the releasable storage of sand castle building toys. The diameter or width of the outer perimeter is approximately 40 inches. The diameter or width of the inner perimeter is approximately 18 inches.

[0008] Another aspect of this invention, a method of building a sand castle comprises the steps of: providing sand; providing a contiguous hollow tube surrounding a void, the tube comprising an upper portion and a lower portion releasably connected generally around an inner and outer perimeter of the tube, the upper and lower portions having an interior and exterior side, and at least one of the upper or lower portions having storage clips extending therefrom for

the releasable storage of sand castle building toys, said tube containing sand castle building toys; opening the hollow tube to expose the sand castle building toys; removing the sand castle building toys; removing the sand castle building toys and building a sand castle by manipulating sand using at least one of the sand castle building toys.

[0009] Preferred embodiments of this invention may include one or more of the following additional features. The steps of creating a moat by placing a portion of the tube into the sand with the interior portions facing upwards and filling the moat with water. The step of creating a second moat by placing a second portion of the tube into the sand with the interior portions facing upwards such that the interior portion remains substantially sand-free and filling the second moat with water. The step of building a sand castle using the sand castle building toys.

[0010] The details of one or more embodiments of the invention are set forth in the accompanying drawings and the description below. Other features, objects, and advantages of the invention will be apparent from the description and drawings, and from the claims.

### DESCRIPTION OF DRAWINGS

[0011] **FIG. 1** is a view of the prior art sand pail in transport to the beach.

[0012] **FIG. 2** is a view of the prior art sand pail in use as a child's toy.

[0013] **FIG. 3** is a view of the preferred embodiment of a sand castle building aid of the invention transported to the beach.

[0014] **FIG. 4** is a view of the preferred embodiment of a sand castle building aid of the invention in use on the beach.

[0015] **FIG. 5** is a top view of a preferred embodiment of a sand castle building aid of the invention.

[0016] **FIG. 6** is a side view of the sand castle building aid of **FIG. 5**.

[0017] **FIG. 7** is a top perspective view from above the lower half portion of the sand castle building aid of **FIG. 5**.

[0018] **FIG. 8** is a side section view of a lower half portion of the sand castle building aid of **FIG. 5**.

[0019] **FIG. 9** is a somewhat diagrammatic view of a set of storage clips arranged to receive a sand castle building toy.

[0020] **FIG. 10** is a somewhat diagrammatic view of a set of storage clips cooperatively securing a sand castle building toy.

[0021] **FIG. 11** is a perspective view of another embodiment of a sand castle building aid with three facets forming a triangle shape.

[0022] **FIG. 12** is a perspective view of still another embodiment of a sand castle building aid with four facets forming a rectangular shape.

[0023] Like reference symbols in the various drawings indicate like elements.

## DETAILED DESCRIPTION

[0024] Referring to **FIGS. 5-7**, a sand castle building aid **1** has the form of a hollow doughnut or toroid. The toroid consists an upper half portion and a lower half portion **3, 3'** that are releasably joined generally around an inner perimeter **5** and outer perimeter **4**. The inner and outer perimeter **4, 5** are preferably in the shape of an ellipse or circle as in **FIGS. 5-7**, but can take any number of geometric shapes and still encompass the invention. The sand castle building toy **1** has an outer diameter, *d*, and the void defined by the inner perimeter **4** has a diameter, *v*. Preferably, *d* has a value of approximately 40 inches, and *v* has a value of approximately 18 inches. Both the upper half portion **3** and lower half portion **3'** have an interior surface **6, 6'** and exterior surface **7, 7'**. When the half portions **3, 3'** are connected, the interior surfaces **6, 6'** of the half portions **3, 3'** together define an interior hollow region of toroidal shape.

[0025] Turning to **FIG. 8**, mounted to the interior surface **6'** of the half portion **3'** are four cooperating arrayed storage clips **8a, 8b, 8c**, and **8d, 8d** being not visible. The storage clips **8a, 8b, 8c, 8d** protrude from the interior surface **6'** of the half portion **3'** for secure storage of sand castle building toys **9**.

[0026] Referring next to **FIGS. 9 and 10**, the storage clips **8a, 8b, 8c**, and **8d** are shown before and after insertion of a sand castle building toy **9**. In **FIG. 9**, the storage clips are ready to receive a sand castle building toy **9**. In **FIG. 10**, the sand castle building toy **9** is engaged within the storage clips **8a, 8b, 8c**, and **8d**. The storage clips **8a, 8b, 8c**, and **8d** apply pressure to the sand castle building toy **9** to secure it in place, e.g. for transport and storage. The size and number of storage clips **8a, 8b, 8c, 8d** can vary according to the size and shape of the sand castle building toys, or other toys to be secured.

[0027] Referring to **FIGS. 11 and 12**, the sand castle building aid may take other shapes. For example, in **FIG. 11**, a sand castle building aid **40** with three facets or sides **10a, 10b**, or **10c** forming the shape of a triangle. Similarly, in **FIG. 12** a sand castle building aid **50** with four facets **10a, 10b, 10c, 10d** forming a rectangle. In each embodiment, the width, *w*, is preferably approximately 40 inches. Any number of facets and polygonal shapes are envisioned within the scope of the invention.

[0028] Referring to **FIG. 3** and **FIG. 5**, in use, e.g., in a sandbox or on a beach, the sand castle building aid **1** is brought to the sandy area. The child or parent opens the sand castle building aid **1** to expose sand castle building toys **9** secured within the volume of the sand castle building aid by storage clips **8a, 8b, 8c, 8d**. The child or parent removes the sand castle building toys **9** from the upper and lower half portions **3, 3'** of the sand castle building aid **1**. Referring now also to **FIG. 4**, they then use the sand castle building toys **9** to manipulate the sand to create a desired structure. Also, the upper and lower half portions **3, 3'** can be dug into the sand and filled with water to create a pool surrounding or adjacent to a sand castle structure, representing a moat. Both of the half portions **3, 3'** can be used in this way.

[0029] The details of one or more embodiments of the invention are set forth in the accompanying drawings and

the description below. Other features, objects, and advantages of the invention will be apparent from the description and drawings, and from the claims.

What is claimed is:

1. A sand castle building aid assembly comprising:

a sand castle building aid comprising a first portion and a second portion, the first portion having a first inner concave surface and a first outer convex surface and said second portion having a second inner concave surface and a second outer concave surface, said first portion and said second portion being releasably fastenable together along an inner peripheral edge and an outer peripheral edge to form an assembly body with said first inner concave surface and said second inner concave surface opposed and together to defining a sand toy volume, and

at least one sand castle building toy removably stored and transported within said volume.

2. The sand castle building aid assembly of claim 1, wherein said assembly body has a toroidal shape.

3. The sand castle building aid assembly of claim 1, wherein said assembly body has a multi-sided polygonal shape.

4. The sand castle building aid assembly of claim 3, wherein said multi-sided polygonal shape is a triangular shape.

5. The sand castle building aid assembly of claim 3, wherein said multi-sided polygonal shape is a rectangular shape.

6. The sand castle building aid assembly of claim 1 wherein the outer peripheral edge of said assembly body has an elliptical shape.

7. The sand castle building aid assembly of claim 1 wherein the outer peripheral edge of said assembly body is approximately 40 inches wide.

8. The sand castle building aid assembly of claim 1 wherein the inner peripheral edge of said assembly body is approximately 18 inches wide.

9. The sand castle building aid assembly of claim 1, further comprising one or more sets of cooperative storage clips extending from said first inner concave surface and said second inner concave surface and arranged for the releasable storage of said at least one sand castle building toy.

10. A method of building a sand castle, said method comprising the steps of:

opening a sand castle building aid comprising a first portion and a second portion, the first portion having a first inner concave surface and a first outer convex surface and the second portion having a second inner concave surface and a second outer concave surface, the first portion and the second portion being releasably fastenable together along an inner peripheral edge and an outer peripheral edge to form an assembly body with the first inner concave surface and said second inner concave surface opposed and together to defining a sand toy volume and sand castle building toys removably stored and transported within the volume;

removing sand castle building toys from the first portion and the second portion of the assembly body;

manipulating the sand castle building toys to build a sand castle;

returning the sand castle building toys to the first portion and the second portion of the assembly body;

rejoining the first portion and the second portion to form the assembly body; and

transporting the sand castle building aid with the sand castle building toys secured therewithin.

**11.** The method of claim 10 further comprising the step of:

interring the first portion and/or the second portion with its inner concave surface facing upward; and

placing water within the volume defined the inner concave surface of the interred first portion or second portion to create a moat for the sand castle.

\* \* \* \* \*