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De Vos

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[54] **TOY BUILDING BLOCK SUITABLE FOR A PAD, RAFT OR THE LIKE**

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[52] **U.S. Cl.** ..... **46/26,** 273/58 K, 273/DIG. 8, 5/344, 5/357, 9/8 R, 114/0.5 F

[51] **Int. Cl.** **A63h 33/08**

[58] **Field of Search** ..... 46/25, 17, 24, 26; 273/58 K, DIG. 8, 136 H, 58 R; 9/8 R; 5/344, 345, 357; 114/0.5 F

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[57] **ABSTRACT**

The present invention is a semi-rigid polymeric foam toy suitable for use as a toy building block. Its softness and larger size make it suitable for constructing wrestling mats and floatable rafts. Its lightness make lifting and throwing relatively easy for a child. The block has sockets and one integral projection for connecting to other blocks and the projection serves as a handle when the block is used as a throwing toy in various games.

1 Claim, 3 Drawing Figures

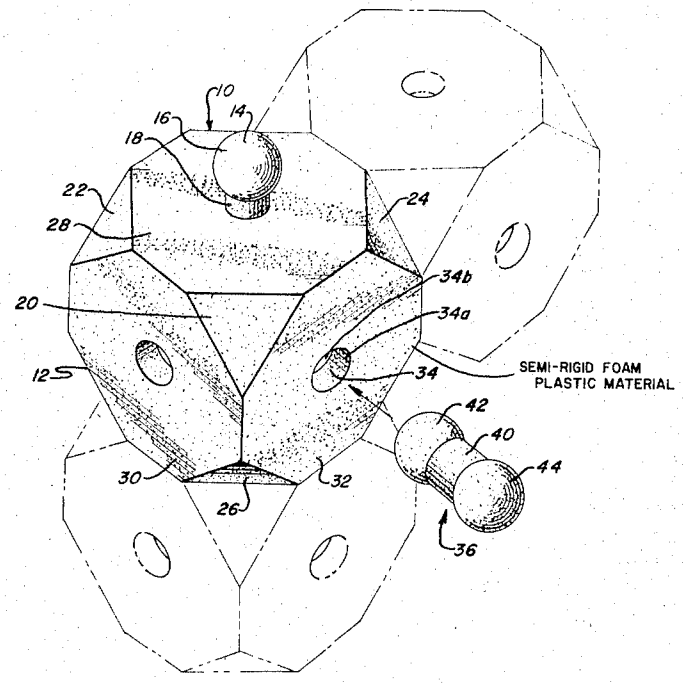


FIG. 1

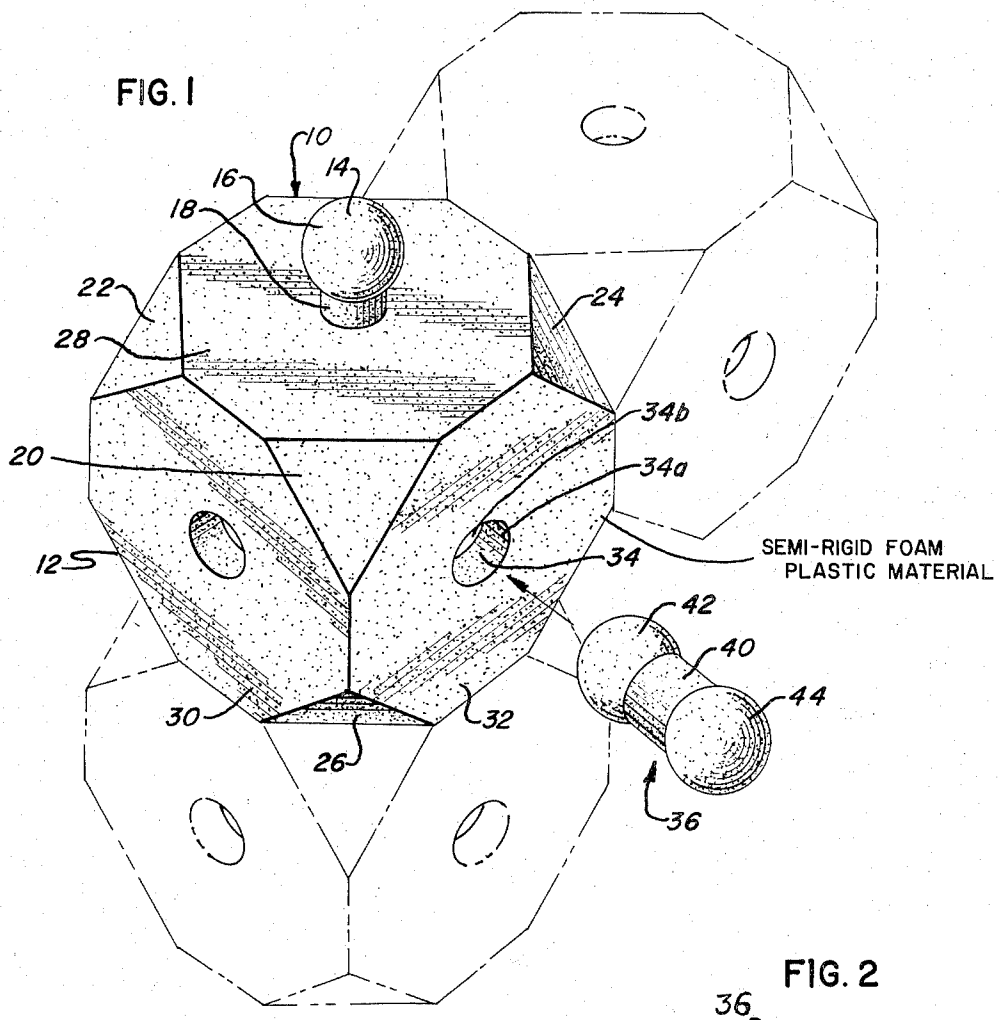
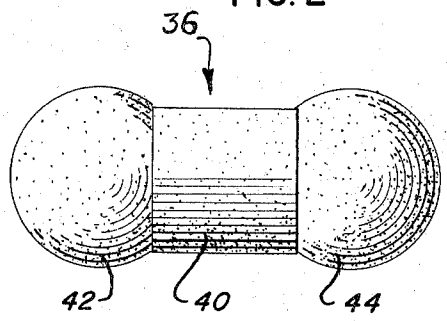


FIG. 2



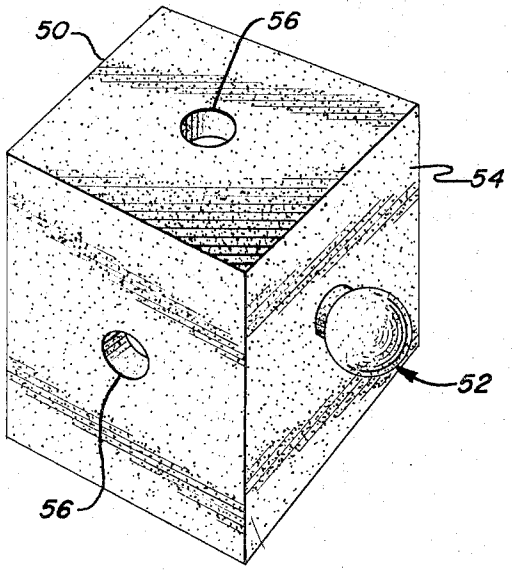


FIG. 3

TOY BUILDING BLOCK SUITABLE FOR A PAD, RAFT OR THE LIKE

The present invention relates generally to foam toys. It relates more particularly to semi-rigid polymeric foam toys suitable as building blocks for construction of pads and other playing surfaces, such as floating rafts, wrestling mats, or jumping and falling mats or as a throwable object for use in games involving throwing, catching, and hitting.

The prior art discloses several different types of toy construction blocks. Some are cuboidal in shape, others are rectangular, pyramidal, or wedge shaped. Many have dangerous sharp corners which can injure children if the child falls upon or is struck with one. Eye injuries may be especially severe from such prior art sharp-cornered blocks. In addition to the sharp corners of many prior art construction blocks, the danger involved is further aggrivated by the fact that most such construction blocks are made from rigid materials, such as wood or hard plastics.

As a result of their sharp corners and rigid construction, such prior art construction blocks cannot be safely used as a throwable toy. Also, if such blocks are larger than a few inches on a side, the toy cannot be easily thrown because a small child cannot grip its surface and no permanently attached handle is generally provided.

The toy building block of the present invention, however, is safe and also highly suitable for games involving throwing, catching, or hitting since it has no sharp corners, is made from semi-rigid foam, and has a permanently affixed handle.

While prior art toy building blocks are suitable for constructing certain objects, they cannot be safely and efficiently used for the construction of wrestling or jumping mats due to their hardness or rigidity and also because of the generally small size of such blocks. The present invention, however, provides a generally larger, semi-rigid block, for example, molded from semi-rigid polyurethane foam, which is an ideal material of construction for the toys of the present invention. Polyurethane foam is durable, tough, will not split or splinter and can be formulated to possess significant fire retardant properties. Therefore, the toy building blocks of the present invention will last a long time and are completely safe.

The present invention can be further understood by reference to the following detailed description and the accompanying drawings, in which:

FIG. 1 is a perspective view of a toy building block of the present invention, showing it in linked relationship to two other building blocks (shown in dotted lines) and also showing a detachable linking unit positioned for insertion into the building block;

FIG. 2 shows a side view of a detachable linking unit which can be used in the present invention; and

FIG. 3 is a perspective view of another embodiment of the present invention, showing a regular cube-shaped building block.

Referring to FIG. **1,** building block **10** comprises a main body **12** and an integral protuberance or affixed connecting or linking unit **14.** Linking unit **14** comprises a generally ball-shaped or spheroid head portion **16** and a cylindrical rod or shaft **18** permanently affixed to main body **12.**

Main body **12,** generally formed from semi-rigid polyurethane foam, is cuboidal in shape with each corner of main body **12** truncated to form eight identical planar equilateral triangular surfaces (four of such surfaces being shown as surfaces **20, 22, 24** and **26**) and also having six planar face surfaces each of which is a regular octagon (three of such surfaces are shown as surfaces **28, 30** and **32**).

Except for planar face surface **28** to which linking unit **14** is affixed, each of the other five planar face surfaces contains a centrally located, inwardly extending, socket or recess **34** suitable in size and shape for receiving either a permanent or detachable linking unit.

Referring to FIG. **2,** there is depicted a side view of a detachable linking means or unit **36** comprising a central portion **40** cylindrical in shape. Integrally attached thereto on both ends of cylindrical central portion **40** are rounded spheroidal end pieces **42** and **44.** When used as a linking means end piece **42** is inserted into a cylindrically shaped, centrally located, inwardly extending, socket or recess (such as recess **34** shown in FIG. **1**) in the toy block. End piece **44** is likewise adapted for insertion into a similar recess in an adjacent building block to link together two blocks.

Referring to FIGS. **1** and **2,** a detachable linking unit **36** is being inserted into recess **34** which is centrally located and extends inwardly, its surface being generally cylindrical at its outermost portion **34***a* and generally spheroidal at its innermost portion **34***b*. The total depth of recess **34** is generally equal to about the length of linking unit **14.** The other dimensions of recess **34** are chosen such that a snug, ball-and-socket-like fit is achieved when either a permanent or detachable linking unit is inserted into recess **34.**

Referring to FIG. **1** building block **10** is shown attached (by detachable linking units or by their permanently affixed linking units, not shown) to building blocks **10***a*, and **10***b*, (shown in dotted lines). This illustrates a method by which a multiplicity of building block units can be attached to form a pad to be used for wrestling, jumping, or falling or assembled into a floatable raft.

FIG. **3** shows another embodiment of the present invention. This embodiment is similar to the preferred embodiment shown in FIG. **1** except that the corners of the block **50** have not been truncated and, hence, the block is regular cube shaped, except for permanently affixed linking unit **52,** which extends perpendicularly from the surface of face **54** of cuboidal building block **50.** Each of the other five faces of cuboidal building block **50,** two of which can be seen from the perspective view of FIG. **3,** contains a recess **56.**

An example of a children's game using the foam toy of the present invention is the following:

A number of contestants take turns tossing one of the foam toys, e.g., block **10,** up in the air from the center of an encircled area (**30'** diameter, for example), and standing on a board (**3'** in diameter). After each contestant has had a turn the one whose block landed furthest from the center must then stand in the center while the others stand at the perimeter of the circle and toss blocks at him. When he catches, and holds five of the blocks, he is released from the center and the game starts from the beginning again.

In addition to its use as a throwable toy, the present invention may also be used for the more traditional purposes of a construction block--to build objects. All

types of three dimensional objects may be constructed. The present invention has the advantage that, due to the relatively low density, (e.g., about 0.5 to 1.5 lbs./cu.ft.) of the foam blocks, large-size models can be constructed by the child. With the more dense and smaller prior art blocks, such large scale models would require many more blocks to build, or, if such dense blocks were made larger, they would be too heavy for a child to lift.

What is claimed is:

1. A plurality of semi-rigid plastic foam toy building blocks suitable for forming a pad for wrestling, a floatable raft, and the like, each said block having a generally cube shaped body providing six planar surfaces and said block having eight truncated corners, thereby providing the six planar surfaces with the shape of an octagon, one of said planar surfaces having an integral protuberance providing a hand graspable handle and comprising a cylindrical portion projecting from said surface and a spheroidal head, and the other five planar surfaces each having an opening for receiving said protuberance, detachable linking means having a cylindrical body portion interconnecting rounded spheroidal end pieces and said end pieces adapted for insertion into said openings whereby the cylindrical body portion and the other of the spheroidal end pieces will provide a protrusion extending from said cube shaped body.

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