Sept. 19, 1961 R. MARINI 3,000,134

TOY BUILDING BLOCKS

Filed Feb. 28, 1957 2 Sheets-Sheet 1

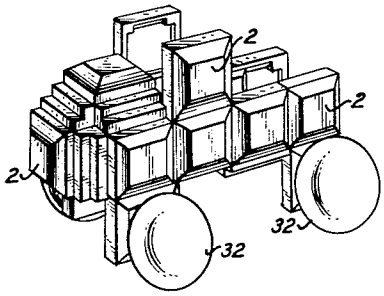


FIG. 1

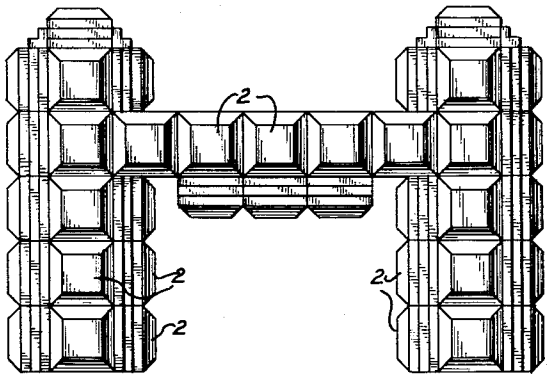


FIG. 2

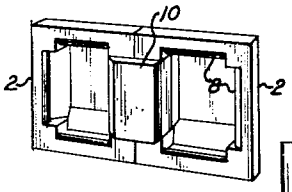


FIG. 3

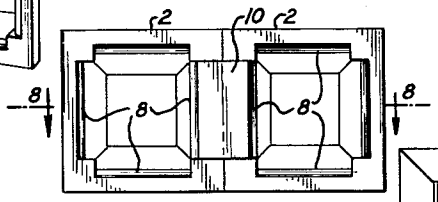


FIG. 4

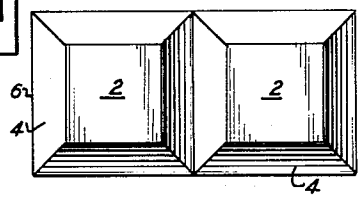


FIG. 5

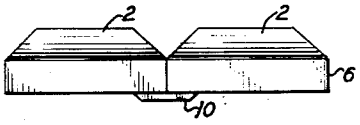


FIG. 6

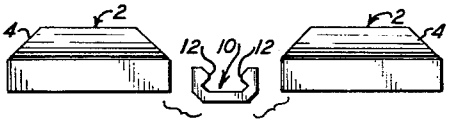


FIG. 7

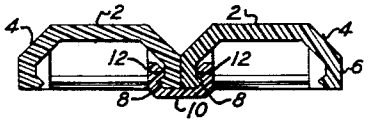


FIG. 8

INVENTOR

RICHARD MARINI

BY Fisher & Christen,

ATTORNEYS.

Sept. 19, 1961 R. MARINI 3,000,134

TOY BUILDING BLOCKS

Filed Feb. 28, 1957 2 Sheets-Sheet 2

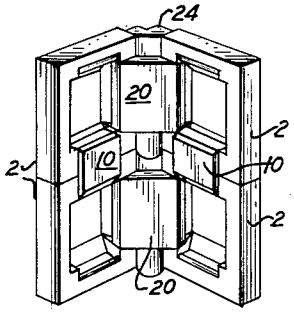


Fig. 9

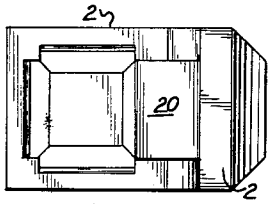


Fig. 10

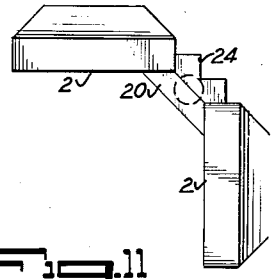


Fig. 11

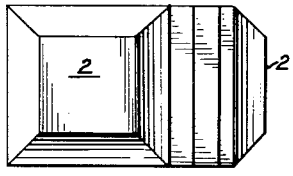


Fig. 12

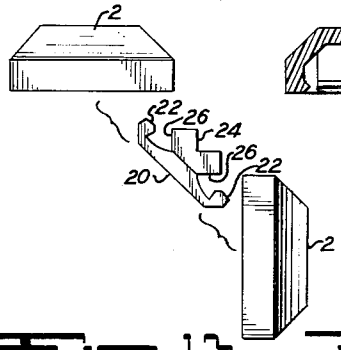


Fig. 13

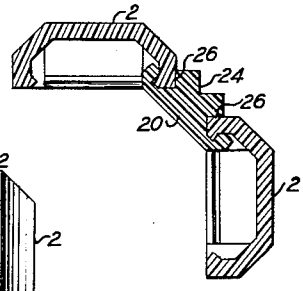


Fig. 14

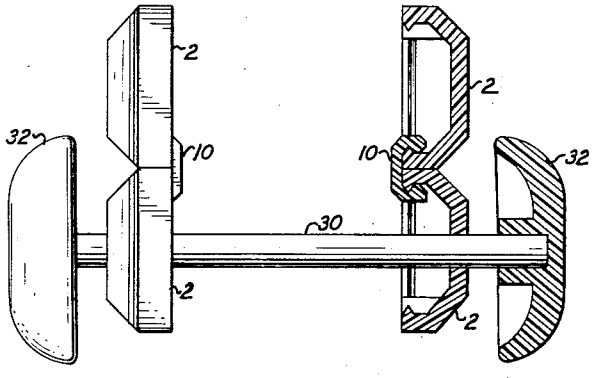


Fig. 15

INVENTOR

RICHARD MARINI

BY Fisher & Christen,

ATTORNEYS.

United States Patent Office 3,000,134 Patented Sept. 19, 1961

3,000,134

TOY BUILDING BLOCKS

Richard Marini, Jamaica, N.Y., assignor to Guild Arts and Crafts, Inc., New York, N.Y.

Filed Feb. 28, 1957, Ser. No. 643,026
3 Claims. (Cl. 46—26)

This invention relates to toy building blocks, and particularly to an assembly unit comprising a pair of building blocks detachably connected by a connector whereby they may be assembled in various combinations in various planes, for building up different kinds of toys, such as toy vehicles, bridges, toy buildings and the like.

The principal object of the invention is to provide a building block assembly consisting essentially of two or more blocks which can be connected together, either in the same plane or at an angle to each other, whereby they may be interengaged in multiple to build up various structures.

The building unit or building assembly here involved consists essentially of a pair of hollow building blocks, at least two of the opposite inner peripheral edges of which are provided with inwardly extending latching or locking ribs, in combination with a connector, also provided with inwardly extending locking ribs.

Both the blocks and the connectors are preferably made of any one of the readily available plastics, the plastic material having a slight resiliency so that the connectors may be sprung apart slightly to snap over the ribs in adjacent edges of two blocks for detachably locking them together.

The hollow blocks are preferably four-sided and can be connected together by the connectors either in the same plane or at right angles to each other or both, and in multiple, thereby giving a wide range of possible structures that can be built from these blocks and connectors. They can readily be detached and assembled in other combinations.

The connectors for holding the blocks at right angles to each other are shaped somewhat differently from the connectors that hold the blocks in the same plane, as will be described in more detail later.

The invention will be described in connection with the following drawings, illustrating the invention. In these drawings:

FIG. 1 is a perspective view of a toy vehicle, composed of the blocks and connectors of the present invention.

FIG. 2 is a side view of a toy bridge, using the blocks of this invention.

FIG. 3 is a perspective view of two blocks connected together in the same plane.

FIG. 4 is a side view of FIG. 3.

FIG. 5 is a view of FIG. 4 looking from the opposite side.

FIG. 6 is an edge view of FIG. 5.

FIG. 7 is an exploded view of the blocks of FIG. 5.

FIG. 8 is a cross section on the line 8—8 of FIG. 4.

FIG. 9 is a perspective view of four blocks assembled in the same and different planes.

FIG. 10 is a plan view of FIG. 9.

FIG. 11 is a side view of FIG. 10.

FIG. 12 is a top view of two blocks assembled at right angles to each other.

FIG. 13 is an exploded view of the blocks of FIG. 12.

FIG. 14 is a sectional view of the blocks of FIG. 13 when assembled.

FIG. 15 is a view partly in section where the two lower blocks carry an axle for a toy vehicle.

The blocks 2 may be described as hollow blocks approximately U-shaped, conveniently square in outline,

having their outer corners beveled at 4, primarily for ornamental purposes and with each of the four walls 6 provided with an inwardly extending latching or locking rib 8, facing toward the interior of the blocks, these ribs 8 being beveled as shown, and four in number, if the block is four-sided.

The connectors 10, where the blocks are to be secured together in the same plane are substantially U-shaped and are provided with beveled inwardly extending latching or locking ribs 12. The connectors 10 which could be metallic, but are preferably of resilient plastic, are snapped into latching engagement over the ribs 8 in adjacent edges of a pair of block 2 as shown in FIG. 8, for latching the two blocks together.

The unit shown in FIG. 8, of course, may be made of any desired length and height by repeating the operation with additional blocks and additional connectors. Additional blocks 2 may be built up on top of the assembly of FIG. 3 simply by placing two blocks on top of FIG. 3 and latching them together with another pair of connectors 10.

Referring now to FIGURES 9 to 14, these figures illustrate blocks connected at right angles to each other by connectors 20, shaped somewhat differently from connectors 10, the blocks 2 being shaped as before. Connectors 20 are provided at their ends with beveled latching or locking ribs 22 and with a filler portion 24 provided with outer bearing surfaces 26.

Two blocks are assembled at right angles to each other as shown in FIG. 14, simply by snapping the latching ribs 22 of connector 20 over the ribs 8 of the blocks 2, as shown in FIG. 14, the bearing surfaces 26 bearing against the outside edges of adjacent blocks.

The two lower blocks and the two upper blocks of FIG. 9 are assembled at right angles to each other, while the two right hand blocks and the two left hand blocks of FIG. 9 are assembled in the same plane.

With the described construction, a child may assemble the blocks in various structures as may suit his fancy, as shown for example in FIGS. 1 and 2. Referring to FIG. 15, some of the blocks 2 may be provided with central holes for receiving an axle 30 on the ends of which wheels 32 may be mounted for making a wheeled vehicle, as in FIG. 1.

It has been found in actual practice that children will assemble the blocks in various combinations to build up various structures and the disclosure should be, therefore, considered merely as illustrative but not restrictive of the invention.

I claim as my invention:

1. In a toy building block construction kit, a building block of resilient material having a front wall and a plurality of side walls extending rearwardly from the periphery of the front wall, the inner surfaces of said side walls defining a hollow interior, each of the side walls being provided at their rearward extremities with a longitudinally extending beveled locking rib projecting inwardly at right angles to the interior surface of the respective wall, a connecting member of resilient plastic material having a longitudinally extending filler portion adapted to be placed between and in an abutting relationship to the exterior surfaces of a pair of adjoining blocks and be coextensive with said exterior surfaces, said connecting member also including a laterally extending portion disposed medially at the rear of the filler portion, the extremities of the laterally extending portion being provided with forwardly extending portions adapted to be received within their respective hollow interiors of said adjoining blocks, the forward extremities of each of said forwardly extending portions having mutually inwardly directed locking ribs adapted to be received in engagement

with the respective locking ribs on the interior surfaces of said blocks.

2. The invention as defined in claim 1, wherein those portions of the filler portion of said connecting member placed between and in abutting relationship with said pair of adjoining blocks comprises a pair of longitudinally extending surfaces disposed at an angle with respect to one another.

3. In a toy building block construction kit, a building block having a front wall and a plurality of side walls extending rearwardly from the periphery of the front wall, the inner surfaces of said side walls defining a hollow interior, each of the side walls being provided at their rearward extremities with a longitudinally extending beveled locking rib projecting inwardly at right angles to the interior surface of the respective wall, a connecting member of resilient plastic material having a longitudinally extending filler portion adapted to be placed between and in an abutting relationship to the exterior surfaces of a pair of adjoining blocks and be coextensive with said exterior surfaces, said connecting member also

including a laterally extending portion disposed medially at the rear of the filler portion, the extremities of the laterally extending portion being provided with forwardly extending portions adapted to be received within their respective hollow interiors of said adjoining blocks, the forward extremities of each of said forwardly extending portions having mutually inwardly directed locking ribs adapted to be received in engagement with the respective locking ribs on the interior surfaces of said blocks.

References Cited in the file of this patent

UNITED STATES PATENTS

2,154,749	Hines	Apr. 18, 1939
2,394,702	Lindsay	Feb. 12, 1946
2,405,643	Crot	Aug. 13, 1946
2,715,794	Atkinson	Aug. 23, 1955
2,756,893	Barrete	July 31, 1956

FOREIGN PATENTS

178,591	Great Britain	Apr. 27, 1922
592,876	Great Britain	Oct. 1, 1947