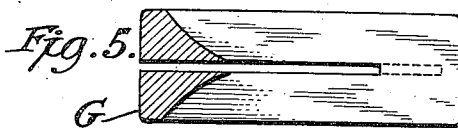
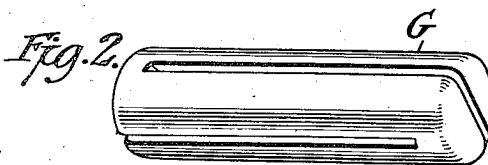
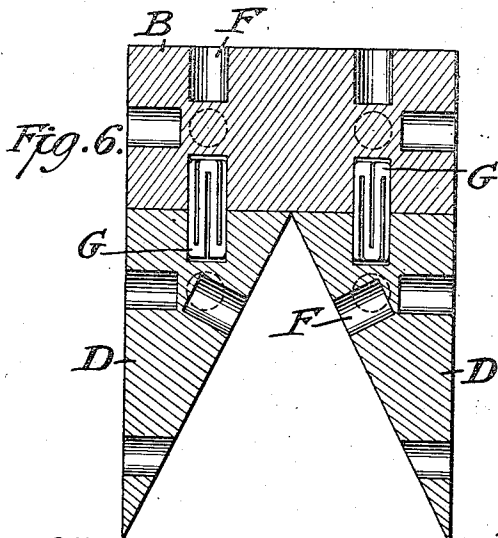
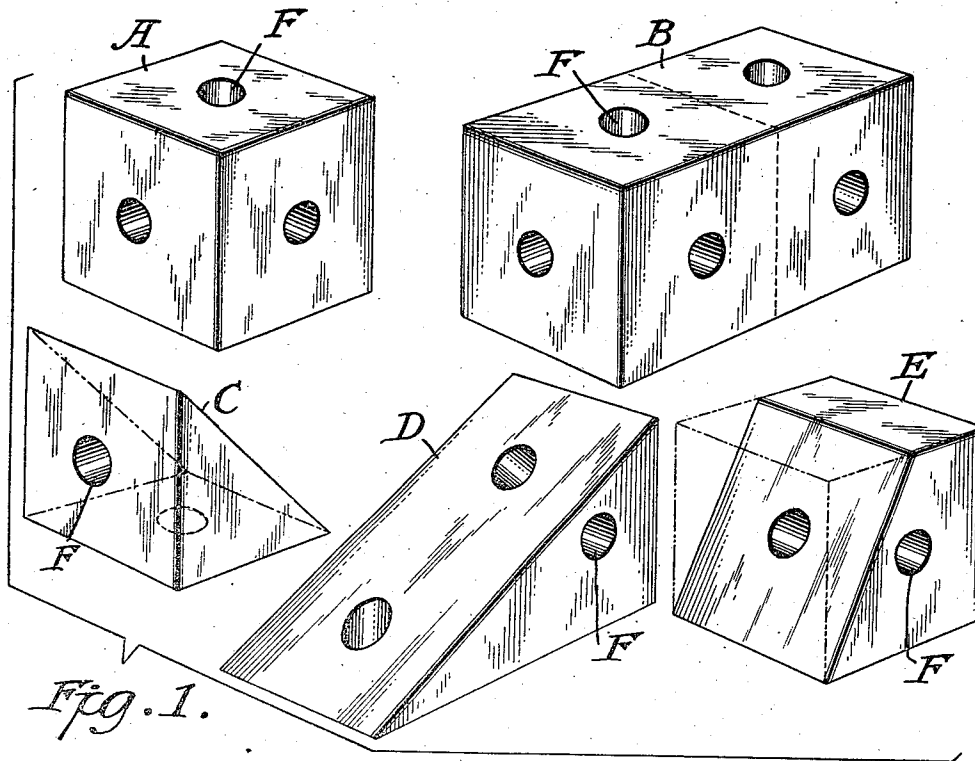


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TOY BUILDING BLOCK.

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UNITED STATES PATENT OFFICE.

JOSEPH H. RAMSEY, VICTOR C. HUNTINGTON, AND CHARLES M. HYATT, OF ALBANY, NEW YORK, ASSIGNORS TO THE EMBOSSING COMPANY, OF ALBANY, NEW YORK, A CORPORATION OF NEW YORK.

TOY BUILDING-BLOCK.

1,216,840.

Specification of Letters Patent.

Patented Feb. 20, 1917.

Application filed October 29, 1915. Serial No. 58,529.

To all whom it may concern:

Be it known that we, JOSEPH H. RAMSEY, VICTOR C. HUNTINGTON, and CHARLES M. HYATT, citizens of the United States, all residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Toy Building-Blocks, of which the following is a full, clear, and exact description.

This invention relates to toy "building blocks," and its chief object is to provide an improved set of blocks with which children can build a variety of structures and which can be secured together by simple and effective means so that the structures built of the blocks will not be destroyed by a chance blow but will even bear handling. To this and other ends the invention consists in the novel features and combinations hereinafter described.

The preferred embodiment of the invention is illustrated in the accompanying drawing, in which—

Figure 1 shows in perspective five of the various shapes that our improved blocks may take.

Fig. 2 is a perspective view illustrating one of the improved dowels or dowel-pins provided for holding the blocks together.

Figs. 3 and 4 are views, in elevation, of the ends of two other dowels.

Fig. 5 is a longitudinal section of the dowel shown in Fig. 2.

Fig. 6 is a sectional view of three blocks fastened together by means of our improved dowel.

According to this invention, the shapes of the blocks are all based on the cube. Thus, in Fig. 1, form A is a single cube, form B is a rectangular prism, the dimensions of which are those of two cubes of the size of form A, form C is a triangular prism produced by cutting cube A in half on a diagonal plane, form D is a triangular prism produced by cutting block B in half on a diagonal plane, and form E is a trapezoidal prism produced by cutting off, on an inclined plane, one-fourth of block A. It will thus be seen that our "cubiform" blocks, being in size and shape all based upon the same cube, "match" perfectly in the various structures which can be built of them, thereby giving a pleasing regularity and smoothness to the whole.

To secure the blocks together (by means of dowels) but permit them to be readily separated, they are provided with cylindrical sockets, as F, in their several faces, the axes of which sockets are preferably perpendicular to the said faces. In each face the socket is at the center of the square, or at the center of what would be a square if the figure were completed. Thus in block E the socket in the trapezoidal face is at the center of the square bounded by the edges which are perpendicular to each other, as indicated by the dotted lines. In block B the sockets in the oblong faces are at the centers of the squares into which they are divided by the dotted lines. Hence when one block is placed squarely on the other the sockets are in perfect alinement, as shown, for example, in Fig. 6.

Several forms of the preferred type of dowel are shown in Figs. 2, 3 and 4. Each consists of a short piece G of cylindrical form, slotted from each end inwardly well past the center, the planes of the slots being at an angle to each other, as shown in the figures. In Fig. 2 the two slots (one at each end) are at right angles. In Fig. 3, three slots at the front end, 120° apart are each midway between similar slots, indicated by the dotted lines, at the back end so that the six slots are spaced equiangularly. In Fig. 4 there are two diametral slots at an angle of 45° to each other in each end, the two pairs crossing at right angles so that the eight radial slots are spaced equiangularly. The inner ends of the slots are inclined, as shown in Fig. 5, so as to come as near to the end of the pin as possible, thereby increasing the yielding qualities of the pin, without materially impairing its strength. The pin is made preferably of wood, as tough and springy as possible, maple being the best that we know of for the purpose.

In its normal state the pin is very slightly larger in diameter than the sockets in the blocks, but is easily compressible so as to enter the sockets with the utmost ease. At the same time there is no possibility of the pin being split by compression alone, since the compression simply bends the tongues of wood which are left between the slots, and these tongues can bend only till they come in contact with each other. In all re-

spects the strength of the pin, so far as normal use is concerned, is practically unimpaired by the slotting. Moreover, when the pin is inserted in the sockets of two contiguous blocks the compression reduces the diameter of the pin with substantial uniformity throughout its length so that the pin has no appreciable taper, and hence there is practically no wear on the sockets, such as would tend to make the same tapered, with the results that even after long continued and constant use the pins still fit the sockets snugly and hence serve to hold the blocks securely together.

By the term "cubiform blocks" as used herein we mean that, as explained above, the blocks are based on a cube of suitable size, each block being composed of a single cube, or of a plurality of cubes, or a fraction of a cube or plurality of cubes, etc. A "set" or "outfit" includes a number of such blocks, say sixty-six, and a suitable number of dowels, for example, a hundred and twenty.

It is to be understood that the invention is not limited to the embodiment herein specifically described, but can be embodied in other forms without departure from its spirit.

We claim:

1. A set of toy building blocks comprising a plurality of blocks having cylindrical sockets perpendicular to the faces of the blocks, and a plurality of radially yielding, resilient dowels adapted to fit snugly the sockets in the blocks to hold the latter together, each consisting of a short cylindrical pin of resilient material having longitudinal slots at an angle to each other extending from the ends inwardly past the center of the pin.

2. A dowel for the purpose described, comprising a short cylinder of resilient material, having longitudinal slots at an angle to each other extending inwardly from the ends past the center of the cylinder.

3. A dowel for the purpose described, comprising a short cylinder of maple wood, having a plurality of longitudinal slots at an angle to each other extending inwardly from the ends past the center of the cylinder.

In testimony whereof we hereunto affix our signatures.

JOSEPH H. RAMSEY.
VICTOR C. HUNTINGTON.
CHARLES M. HYATT.