

June 24, 1930.

R. AUKENTHALER

1,765,644

TOY BLOCKS AND CONNECTING MEANS THEREFOR

Filed July 19, 1928

Fig. 1.

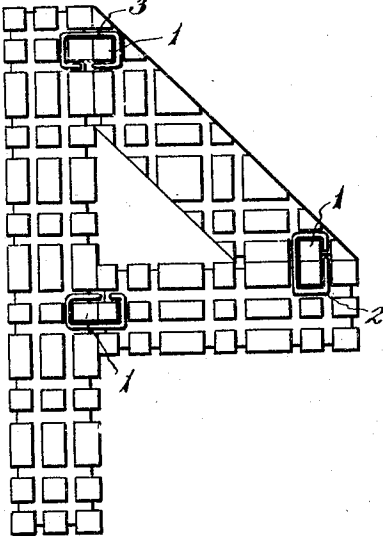


Fig. 3.

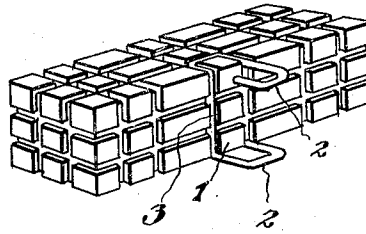


Fig. 4.

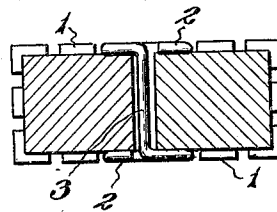


Fig. 2.

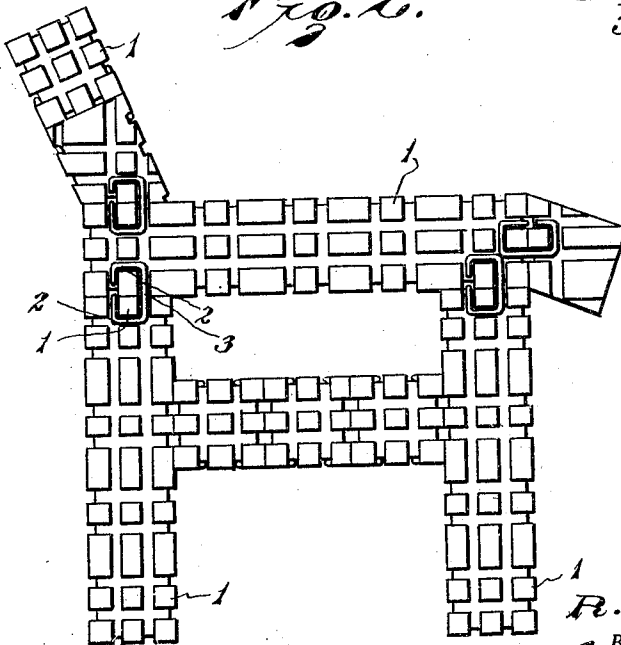
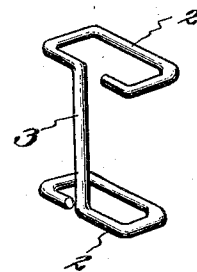


Fig. 5.



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TOY BLOCKS AND CONNECTING MEANS THEREFOR

Application filed July 19, 1928. Serial No. 294,031.

The invention relates to blocks for children whereby various structures, figures and shapes may be formed and held in place to admit of handling, yet admit of ready separation of the blocks when it is required to construct other forms.

In accordance with the invention the blocks are variously formed to admit of interchangeability and arrangement according to the design of the structure or figure to be formed. The variously shaped, sized and formed blocks have facial projections for cooperation with peculiar fastenings, whereby the blocks are held when assembled. In the preferable construction the faces of the blocks are formed with intersecting right angularly disposed grooves resulting in marginal projections, corresponding grooves in opposite faces being connected by cross grooves.

The invention contemplates fastening means for positively connecting the blocks when assembled to admit of the figure, structure or object being handled without fear of its dismemberment. The fastening means are so formed as to prevent casual displacement yet admit of the assembled blocks being readily and quickly separated when required.

The fastening includes two similar clamp members and a tie, the latter fitting within a cross groove of a block and the members being held in the facial grooves at opposite ends of adjacent blocks defining the marginal projections embraced and clamped by the members.

While the drawing illustrates a preferred embodiment of the invention, it is to be understood that in adapting the means to meet specific needs and requirements, the design may be varied and such other changes in the minor details of construction may be resorted to within the scope of the invention as claimed, without departing from the spirit thereof.

For a full understanding of the invention and the merits thereof, reference is to be had in the following description and the drawing hereto attached, in which:—

Figure 1 is an elevational view showing

an assemblage of blocks forming the figure 4.

Figure 2 is a side view of a chair, constructed from blocks and fastening means embodying the invention.

Figure 3 is a detail perspective view of a block and attached fastening.

Figure 4 is a sectional view of two blocks and connecting fastening.

Figure 5 is a perspective view of a fastening.

Corresponding and like parts are referred to in the following description and designated in the several views of the drawing by like reference characters.

In accordance with the invention it is preferred to construct the blocks of uniform width and of interfitting lengths to admit of substitution and interchanging which is essential to various constructions of different shapes, and designs. The blocks vary in length and their end faces may be perpendicular to the sides or inclined thereto as indicated most clearly in Figures 1 and 2 of the drawing, which illustrates different formations. An essential feature of the invention resides in the facial grooves which intersect at right angles and form facial projections 1 along the margins of the blocks, said projections being square or of angular formation. The grooves extend longitudinally and transversely of the blocks and intersect at a right angle and corresponding transverse grooves in opposite faces are connected by transverse grooves in the faces disposed therebetween. This is essential because of the peculiar formation of the fastening means which includes companion clamp members and a cross tie. The facial grooves formed in the sides and ends of the blocks are uniformly spaced to insure their matching when the blocks are arranged according to a given design.

The fastening means include corresponding clamp members 2 and a cross tie 3. The clamp members 2 are of similar or like formation and consist of oblong loops corresponding to matching marginal projections 1 so as to snugly embrace the sides thereof which they engage frictionally to prevent casual disengagement. The facial grooves

are of a depth to receive the fastening means and prevent any parts thereof projecting beyond the faces or sides of the blocks. The fastening is formed from a single length of spring wire bent into the shape substantially as shown in Figure 5 of the drawing. In the preferable formation opposite end portions of the wire are reversely bent thereby equalizing the strain upon the fastening when applied. The cross tie is disposed at one side of the clamp members 2 and intermediate the ends thereof thereby admitting of the cross members engaging corresponding projections 1 of adjacent blocks and the cross tie 3 occupying a cross groove connecting corresponding side grooves in which elements of the clamp members 2 are fitted. While the clamp members 2 frictionally engage the sides of the projections 1 in a manner to prevent displacement they are further held in place by means of the cross tie 3 hence it is necessary to apply force in a deft manner to effect disengagement of the fastenings and blocks after they have been properly assembled.

When assembling the blocks the fastening is applied by engaging corresponding end portions of the clamp members 2 over corresponding projections 1 and entering the cross tie in the cross groove connecting corresponding side grooves in which end portions of the clamp members are fitted. This results in the free ends of the clamp members 2 projecting as indicated most clearly in Figure 3 of the drawing. The next block to be attached is placed between the projecting end portions of the clamp members which engage corresponding side projections 1 thereby firmly connecting adjacent blocks in a manner to admit of handling without separation of the blocks. As the blocks are positioned in their assemblage to form the figure or structure they are made secure in the manner designated and in consequence the finished article may be handled in substantially the same manner as would be the case if the parts were permanently connected.

Having thus described the invention, I claim:—

Toy blocks each having right angularly disposed intersecting grooves in its sides forming facial projections, a fastener having a shank passing between adjoining blocks and seated in registering grooves thereof, and rectangular loops at the ends of said shank bearing against opposite sides of the blocks and seated in grooves thereof about corresponding facial projections to releasably secure the blocks in assembled position.

In testimony whereof I affix my signature.
RICHARD AUKENTHALER. [L. S.]