H. L. POST.

TOY BUILDING BLOCK.

APPLICATION FILED AUG. 16, 1915.

1,281,832.

Patented Oct. 15, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

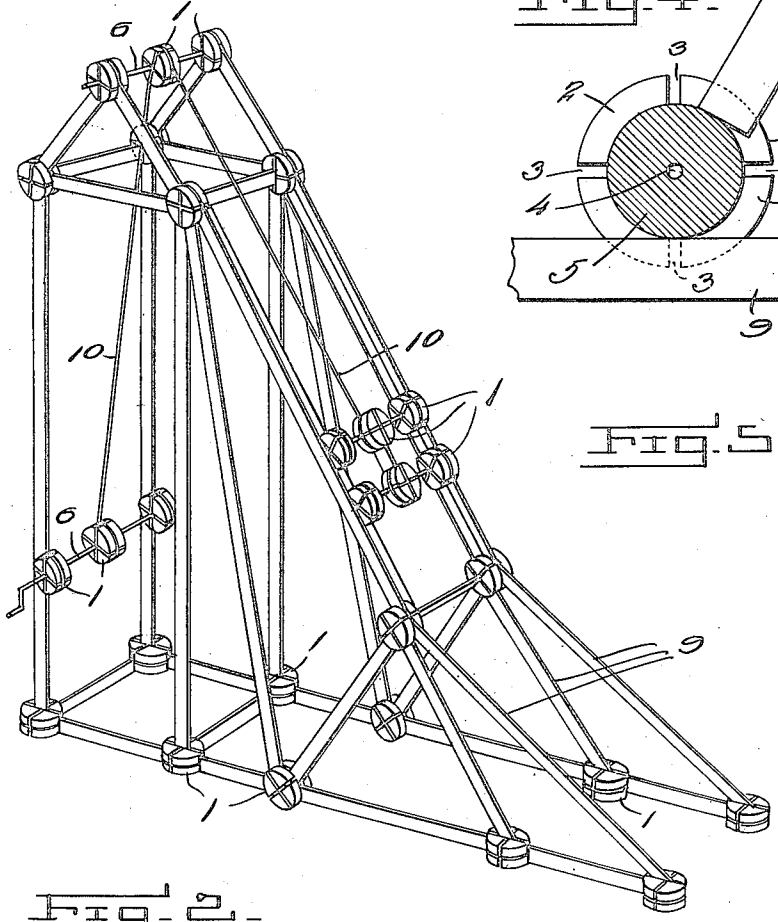


Fig. 4.

Fig. 5.

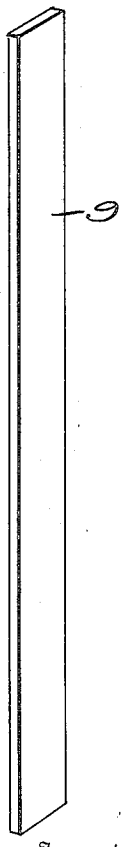


Fig. 2.

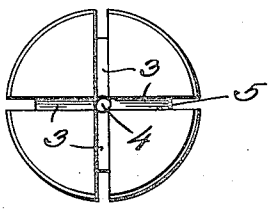
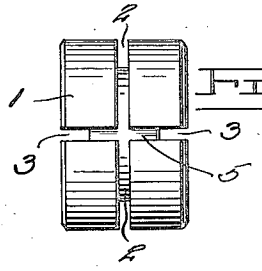


Fig. 3.



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Witnesses

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2 SHEETS—SHEET 2.

Fig. 6.

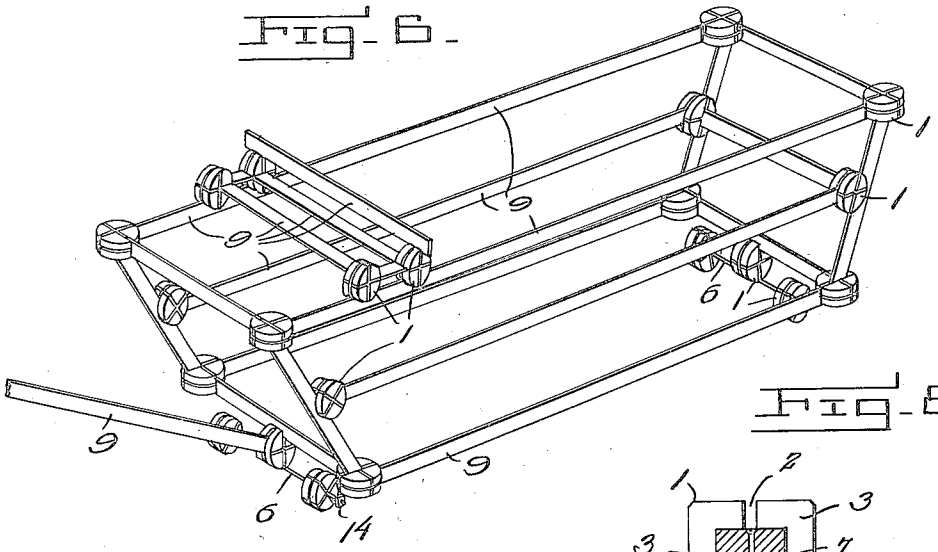


Fig. 8.

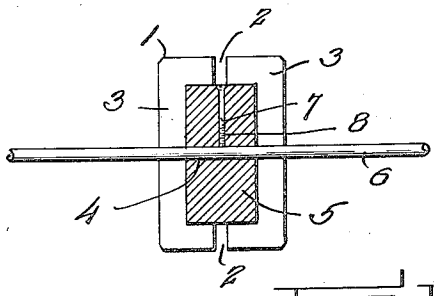


Fig. 7.

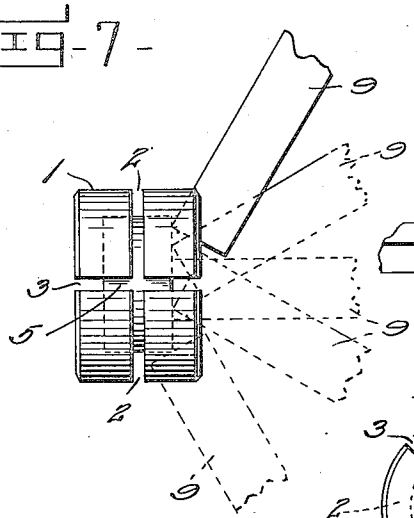
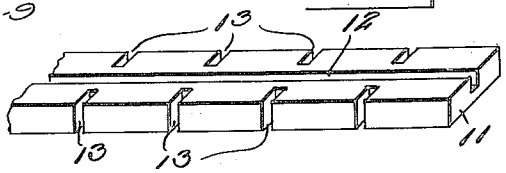


Fig. 10.



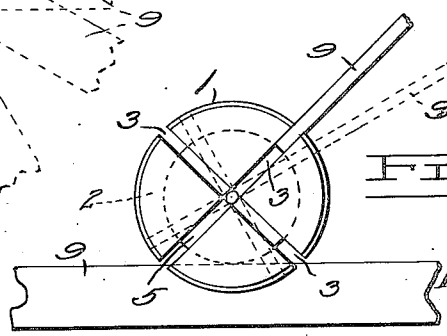


Fig. 9.

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UNITED STATES PATENT OFFICE.

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TOY BUILDING-BLOCK.

1,281,832. Specification of Letters Patent. Patented Oct. 15, 1918.

Application filed August 16, 1915. Serial No. 45,679.

To all whom it may concern:

Be it known that I, HAROLD L. POST, a citizen of the United States, residing at Appleton, in the county of Outagamie and State of Wisconsin, have invented a new and useful Toy Building-Block, of which the following is a specification.

The object of my invention is to provide an improved construction toy adapted for building a wide variety of toy structures; to provide a toy of this character which can be manufactured more economically than prior construction toys; and to provide for such a toy a novel connecting block adapted for use in a greater number of ways than any prior device of this class. It is an especial object of my invention to provide a block having grooves so disposed and of such depth as to be capable of securely gripping and connecting auxiliary blocks or strips in a great variety of ways for building toy structures, and also to provide a block of this character with an axial orifice for an axle member. Further objects of my invention will appear hereinafter.

I attain the objects of my invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective showing the toy assembled; Fig. 2 is a side elevation of the connecting block; Fig. 3 is an edge view of same; Fig. 4 is a vertical section of the connecting block and a detail of the building strips; Fig. 5 is a perspective of my building strip; Fig. 6 is a perspective of the toy assembled to form a toy cart; Fig. 7 is an edge view of the connecting block showing various angles at which my building strip may be attached; Fig. 8 is a vertical section of the connecting block showing means for fastening a hub; Fig. 9 is a detail of the connecting block and building strips at different angles; Fig. 10 is an auxiliary block.

Similar characters of reference indicate similar parts throughout the several views.

Referring to the accompanying drawings, I provide a block 1, cylindrical in shape and having a relatively deep circular groove 2, extending to a depth of approximately one-third of the radius of the block. I also provide in the block transverse encircling grooves 3 disposed at right angles to and intersecting each other at the center, said grooves 3 being of similar depth to groove 2, thus forming a central hub portion 5, as illustrated in Figs. 4 and 7. In my connecting block 1 deep and narrow grooves are thus provided between eight quarter cylindrical sections, the depth of the grove being such as to enable the sections to securely grip and hold auxiliary blocks or strips 9 in the grooves so that the block 1 may serve as a connecting member therefor. The blocks or strips 9 are preferably rectangular in cross section and of various lengths and adapted to engage along their edges or endwise in the grooves 2 or 3, the depths of the grooves being such that the connecting block I effectively grips and holds the building strip 9 in any position in which it may be inserted. In block 1 I also provide an arifice 4 for the insertion of a suitable axle 6. When desirable, the axle 6 may be fastened in place by a suitable set screw 7 in a radial orifice 8. It is within the contemplation of my invention to provide an auxiliary block 11 having a longitudinal groove 12 and spaced oppositely positioned grooves 13, adapted to engage the ends of my building strip 9, to operate as a ridge-pole block for the construction of toy houses and like structures. I may also provide a suitable fastening member 14, as shown in Fig. 6, for use when blocks 1 are employed as wheel members in toys. 10 designates a cord used in operating a toy building construction, as illustrated in Fig. 1.

The operation of the toy will be understood by reference to the accompanying drawings. The building strip 9 and connecting block 1, which preferably are of wood are adapted for engagement in an almost endless variety of combinations and at all angles. The depth of grooves 2 and 3 in block 1, which is of wood, gives a gripping action or degree of flexibility to the portions of the block that engage strip 9 which greatly increases its usefulness and adaptability. The cylindrical form of the block in connection with the grooves 2 and 3 and orifice 4 makes possible a variety of uses not possible with square or irregular forms of toy blocks, as will be apparent by a scrutiny of Figs. 1, 6 and 9, serving as a connecting block, a wheel, pulley, winding drum, etc.

It is within the contemplation of my invention to provide suitable auxiliary blocks, such for example as the ridgepole block illustrated in Fig. 10, adapted for receiving the ends of building strips 9 to form a toy

house construction, but my connecting block 1 represents an improvement over other shapes of blocks in the greater variety of uses to which it is adapted to be put in the formation of toy constructions, such as derricks, cranes, wind mills, wagons, etc., where it may be used as wheel, pulley or connecting element interchangeably.

I am aware that square building blocks and blocks of irregular shape adapted for building toys in close formation have heretofore been devised, such blocks having intersecting grooves, but in such blocks the grooves are not positioned and formed as to afford the degree of resiliency or gripping action made use of in my toy construction, and are otherwise incapable of being connected and assembled and used in the manner of my blocks as above set forth in connection with the accompanying drawings, and I therefore claim as novel:

1. A toy having in combination a cylindrical block having a circumferential and diametrical encircling grooves, a transverse central orifice adapted to receive an axle member, and a radially disposed set screw adapted for insertion in and having its head in a plane with the bottom of the circumferential groove, and adapted to securely fasten the block to the axle member.

2. In a toy construction, the combination of a cylindrical block having circumferential and diametrical grooves and an orifice for an axle member, and an axle member and means for retaining the block on the axle.

3. In a toy construction, the combination of a cylindrical block having circumferential and transverse grooves and an orifice for an axle member.

4. In toy building blocks, the combination of a cylindrical block having circumferential and transverse grooves extending entirely around the block and an orifice for an axle member.

5. In toy building blocks, the combination of a cylindrical block having circumferential and intersecting transverse grooves encircling the block.

6. In a toy building block, the combination of a cylindrical block having circumferential and transverse grooves, the grooves being of a shape and depth to engage and hold a flat toy building strip, and an orifice for an axle member.

7. In a toy construction, the combination of a cylindrical block having circumferential and transverse grooves, the grooves being shaped to engage the sides of a flat toy building strip, the block having an orifice for an axle member, and a screw at the bottom of the groove adapted to secure the block to an axle.

8. In a building construction toy of the class described, block members, flat thin stick elements for association therewith to hold said block members connected, said block members each having a continuous peripheral groove and transverse notches of the same depth as said groove in the periphery thereof, communicating through said groove, said groove and each of said notches adapted to receive said elements engaged therein in different angular relations.

9. In a device of the class described cylindrical block members having a continuous peripheral groove therein and a central aperture therethrough, and stick elements adapted for frictional engagement in various relations with said block elements by engagement in different tangential positions in the groove therein.

10. In a device of the class described, the combination of stick elements of relatively small thickness, of block members for joining the same together in different angular relations, comprising blocks having a central aperture therethrough with transverse radially directed notches in the periphery of said blocks and with a continuous peripheral groove in each of said blocks intersecting the transverse notches thereof.

11. In a device of the class described a cylindrical flat end block having a continuous peripheral groove therein and transverse radial notches in the periphery of said block intersecting said continuous groove and of the same depth as said groove.

12. In toy building blocks the combination with a flat toy strip of a cylindrical block having a circumferential groove adapted to grip the sides of the flat toy strip, said block having an orifice for an axle member.

13. In toy building blocks the combination with a flat toy strip of a cylindrical block having circumferential and transverse grooves adapted to grip the sides of the flat toy strip, said block having an orifice for an axle member.

14. In toy building blocks the combination with a flat toy strip of a cylindrical block having circumferential and transverse grooves adapted to grip the sides of the flat toy strip, said block having an orifice for an axle member and fastening means for holding the block on an axle.

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Witnesses:
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