Jan. 13, 1925. 1,523,347

E. O. MURMANN

BUILDING OUTFIT

Filed Dec. 27. 1923

Fig. 1

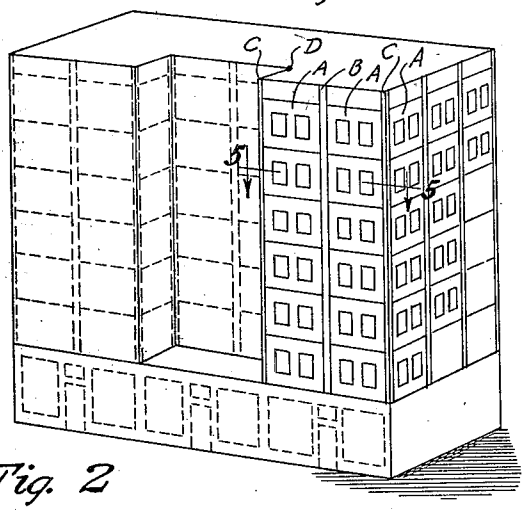


Fig. 4

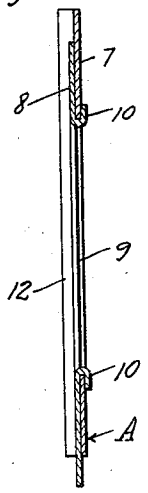


Fig. 2

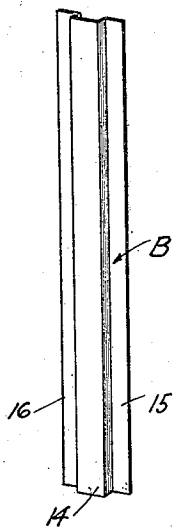


Fig. 5

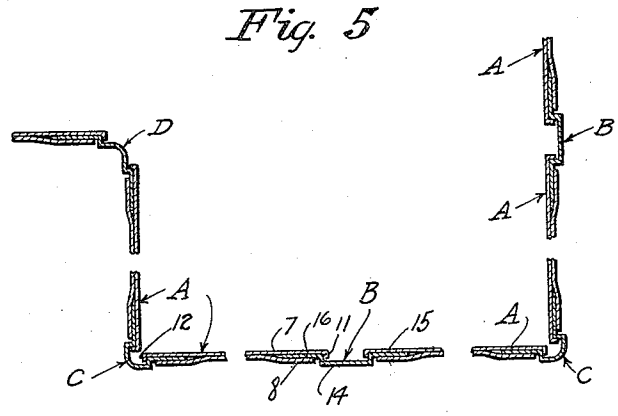


Fig. 3

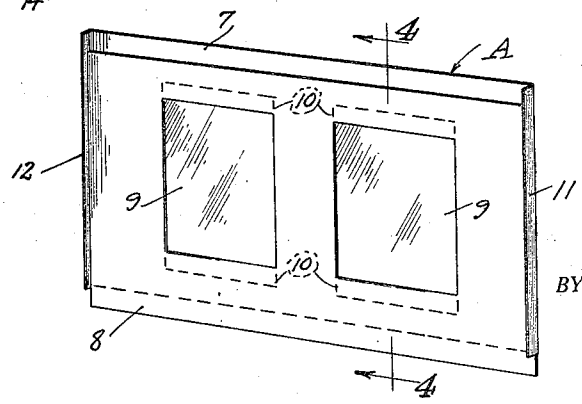
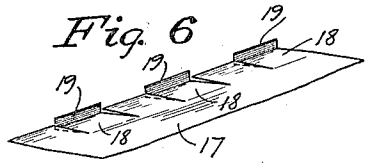


Fig. 6



INVENTOR.

Eugene O. Murmann

BY Westall and Wallace

ATTORNEYS

Patented Jan. 13, 1925. 1,523,347

UNITED STATES PATENT OFFICE.

EUGENE O. MURMANN, OF GLENDALE, CALIFORNIA.

BUILDING OUTFIT.

Application filed December 27, 1923. Serial No. 682,923.

To all whom it may concern:

Be it known that I, EUGENE O. MURMANN, a citizen of the United States, and resident of Glendale, in the county of Los Angeles and State of California, have invented new and useful Improvements in a Building Outfit, of which the following is a specification.

This invention relates to a building outfit wherein a number of interchangeable units may be assembled to form building structures.

The primary object of this invention is to provide a combination of plates and bars so related that a number of units of different configurations and ornamentations may be assembled to produce structures of varying dimensions, shapes, and appearances in accordance with the architectural ideas of the user. Whereas, the present invention is illustrated as embodied in a toy, yet it is not limited to such use. Another object of this invention is to provide units of the character described which are simple to assemble, and economical to manufacture.

These objects together with other objects and corresponding accomplishments are obtained by means of the embodiment of my invention illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view indicating diagrammatically a building which might be formed from an assembly of units, the combination of the specific units illustrated in the other figures of the drawing being shown in full lines; Fig. 2 is a perspective view of a junction bar; Fig. 3 is a perspective view of a plate; Fig. 4 is a section seen on the line 4—4 of Fig. 3; Fig. 5 is a section as seen on the line 5—5 of Fig. 1; and Fig. 6 is a fragmentary perspective view of a modified form of plate.

Referring more particularly to the drawing, and especially to Figs. 1 and 5, building plates A are shown joined together by junction bars B to form flat faces. Junction bars C and D are used at the corners for joining plates. According to the assembly of various parts different configurations and dimensions in a building structure may be formed.

The building plate A comprises a ply 7 and a ply 8 joined so as to be free at the edges and form attachment ways between them. In the toy these may be made of metal and are arranged to overlap one another at the top and bottom edges. Window openings are formed therein, and these openings may be covered with a transparent sheet of celluloid or other material of a similar nature forming window panes. A convenient way for securing the plies 7 and 8 together is to cut tongues from plate 8 at the upper and lower edges of the window openings and turn these tongues back to form locking flanges as best shown in Fig. 4. Ply 7 overlaps ply 8 at the end and the overlapping portions are bent at right angles to form locking flanges 11 and 12. It is obvious that the window panes are not essential and may be omitted if desired.

Referring to the junction bars, bar B is of channel form having a channel center indicated by 14 and wings 15 and 16 extending laterally from the side walls of the channel. Junction bar C differs from junction bar B in having the center wall of the channel section bent so that it is concave. Junction bar D differs from junction bar B by having the bottom wall of the channel bent so that it is convex. Referring particularly to Fig. 5, plate A is joined to a junction bar B by sliding the wings of the latter into the ways formed between the plies of the plates, the flanges 11 on the plates A hooking over the side walls of the channel. The assembly of the other units is obvious.

Referring more particularly to Fig. 6, a single plate 17 is shown having tongues 18 cut therefrom at the edges. These tongues have flanges 19 bent at right angles thereto. Alternate tongues are offset from the plane of the body of the plate an amount such as to form a channel through which a wing of a junction bar may be passed. Thus, instead of two plates to form a single building plate, one may be employed, thereby providing a more economical structure.

What I claim is:

1. A building outfit comprising the combination of plates having at their side edges locking flanges extending at right angles to the body of the plates, attachment walls adjacent said flanges and extending the length thereof, said last mentioned walls being arranged to be offset from one another so as to engage opposite sides of a junction bar, a junction bar having a central wall,

a locking wall at right angles thereto to rest against a flange and a wing offset from said central wall for disposal between the attachment walls of said plate.

2. A building outfit comprising the combination of rectangular plates having at their side edges locking flanges extending at right angles to the body of the plates, attachment walls at the edges of said body offset from one another so as to be disposed on opposite sides of a wall of a junction bar, flanges extending at right angles to the body at the edges thereof, a junction bar having a central wall, a locking wall at right angles thereto to rest against a flange of a plate, and a wing offset from said central wall for disposal between the attachment walls of said plate.

3. A building outfit comprising the combination of a plate having at its side edges locking flanges extending at right angles to the body and an attachment way extending the length of each flange adjacent thereto, a junction bar having a central wall, a locking wall at right angles thereto to rest against a flange and an attachment wing offset from said central wall for disposal in said slot.

4. A building outfit comprising the combination of a rectangular plate having at its side edges locking flanges extending at right angles to the body and a slot extending the length of each flange adjacent thereto, a junction bar having a central wall, a locking wall at right angles thereto to rest against a flange of said plate and an attachment wing offset from said central wall for disposal in said slot.

5. A building outfit comprising the combination of a plate formed of two plies free at their edges to form attachment ways and having locking flanges extending at right angles to the body adjacent thereto, a junction bar having a central wall, a locking wall at right angles thereto to rest against flanges and an attachment wing offset from said central wall for disposal in said slot.

In witness that I claim the foregoing I have hereunto subscribed my name this 20 day of December, 1923.

EUGENE O. MURMANN.