

May 22, 1956

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2,746,098

LOCKING MEANS FOR COUPLING BUILDING WALL PANELS

Filed June 14, 1954

2 Sheets-Sheet 1

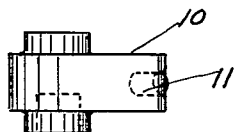


Fig. 3.

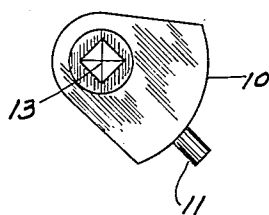


Fig. 4.

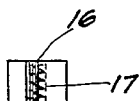


Fig. 5.

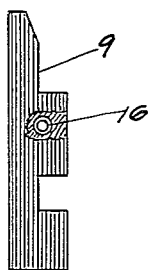


Fig. 6.

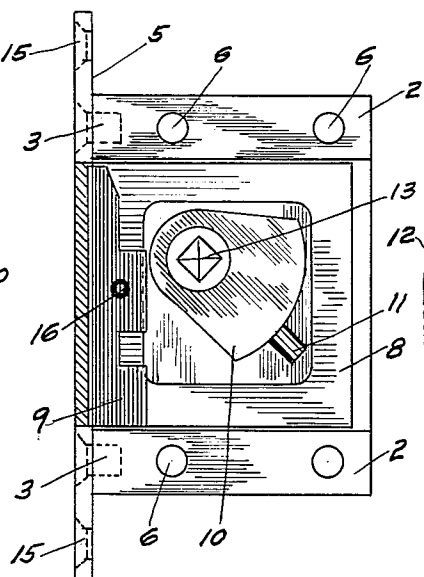


Fig. 1.

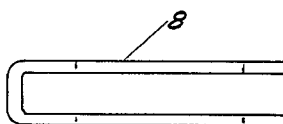


Fig. 7.

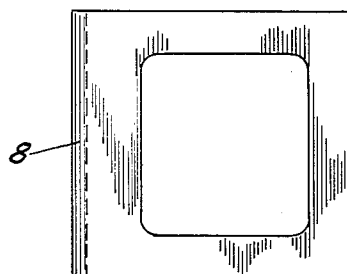


Fig. 8.

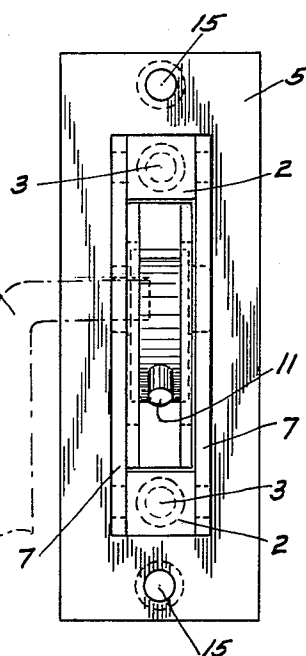


Fig. 2.

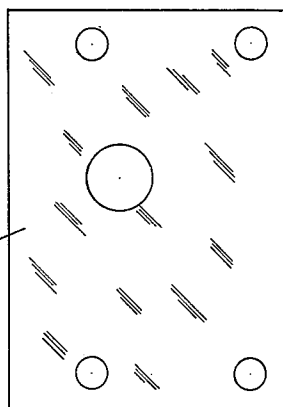


Fig. 9.

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2 Sheets-Sheet 2

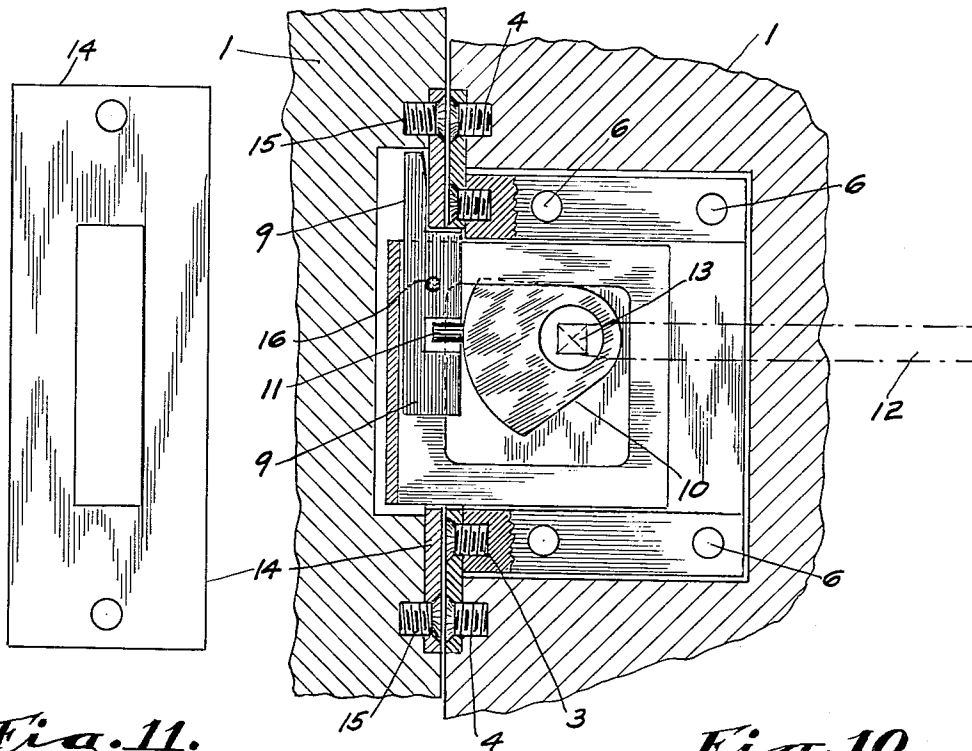


Fig. 11.

Fig. 10.

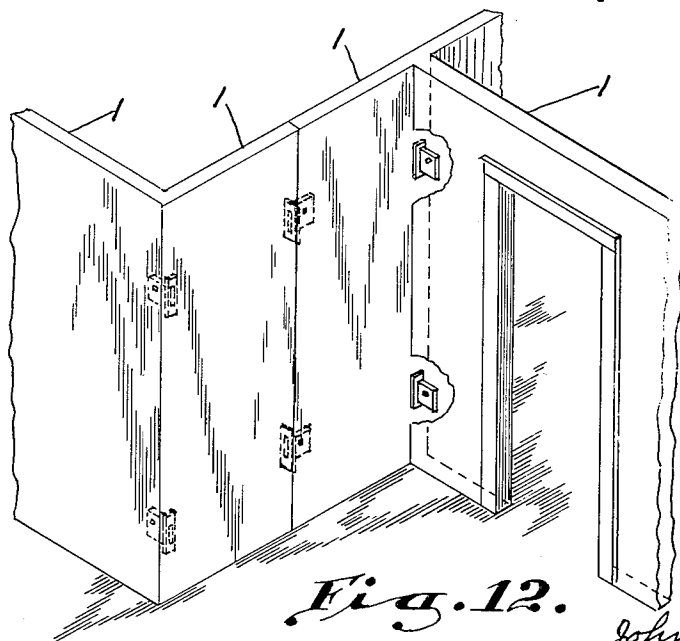


Fig. 12.

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1

2,746,098

LOCKING MEANS FOR COUPLING BUILDING WALL PANELS

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1 Claim. (Cl. 20—4)

This invention relates to building wall construction. It has for its main objects to provide such construction that will be highly satisfactory for the purpose intended, simple in structure, comparatively cheap to manufacture, easy to assemble for use, and extremely durable for use and re-use.

At the present time there are several kinds of erectable building walls of the panel type for use and for re-use by dismantling and then erecting at another location. The means for holding the wall panels together are not satisfactory. In many such structures the connecting means require too much labor and expense for practical use. The present structure overcomes all such objections by providing connecting means for use and re-use without any damage to the parts and capable of being used without delay and trouble.

Other objects and advantages will appear from the drawings and description.

By referring generally to the drawings, a part of this application, it will be observed that Fig. 1 is a side view of wall panel fastener with cover plate removed made according to the present invention; Fig. 2 is a front view of the fastener; Fig. 3 is an edge view of the tumbler of the fastener; Fig. 4 is a side view of the tumbler shown in Fig. 3; Fig. 5 is a sectional view of Fig. 6 showing the hole and spring in the slidable secondary fastening plunger that operates in the main plunger; Fig. 7 is an edge view of the main plunger; Fig. 8 is a side view of the main plunger; Fig. 9 is a side view of one of the plates that encloses the parts; Fig. 10 is a general side view, part in section and part full, showing part of wall panels with the assembled fastener therebetween; Fig. 11 is a view of one of the plates as used on the outer edge or front of the assembled fastener and on the edge of an adjoining wall panel; and Fig. 12 is a perspective view showing wall panels and how same are held together by the fasteners.

Similar reference numerals refer to similar parts throughout the several views.

Referring to the drawings in detail it will be seen that the wall panels 1 are held together by an assembled fastener similar to a lock. The fastener comprises metal bars 2 with each having a threaded hole 3 in an end to accommodate a stud screw 4 for holding the plate 5 attached to the ends of the bars. Also each bar is provided with two plain holes 6 for stud screws to be inserted therethrough to hold the plates 7 together with the main plunger 8, secondary plunger 9, and tumbler 10 in place for use. The tumbler which is journaled in the center holes of plate 7 and has an extension 11 that moves both plungers outward and then the secondary plunger partly out of the main plunger when the L-shaped wrench 12

2

is partly revolved by manual means while inserted in the tumbler hole 13. The companion plate 14 being attached by stud screws 15 in the edge of a panel is in position for the secondary plunger to clamp it adjacent the plate attached to the fastener members 2. The secondary plunger is provided with a hole 16 in which is inserted a small coil spring 17 in compressed tension so that it will press against the inner portion of the main plunger to thus prevent easy movement of the secondary plunger if installed in an upward condition.

From the foregoing it will appear that by inserting the assembled fasteners in the edges of wall panels and having companion plates attached in the edges of adjoining panels and positioned to register with the fasteners, any number of panels may be easily erected to form complete walls, with only holes for the wrench showing which may be easily plugged if desired.

The various parts of the fastener may be made of any material suitable for the purpose, but we prefer to use metal. Also the parts may be made in different sizes and capacities, depending on how and where to be used.

While we have shown and described the preferred embodiment of our invention, we do not wish to limit same to the exact and precise details of structure, but reserve the right to make all modifications and changes so long as they remain within the scope of the invention and the following claim.

Having described our invention we claim:

In a wall panel connecting device of the character described comprising two similar metal square bars as main supports for other parts, each bar having a threaded hole in one end thereof adapted to receive a stud screw and having two plain holes through it adapted for stud screws to be inserted therethrough, two similar approximately square plates having a plurality of holes in each as walls for enclosing other parts, a metal oblong shaped plate attached by stud screws to one end of each bar piece, said oblong plate having an oblong slot therethrough, a U-shaped main plunger positioned between the said similar bar pieces and the wall plates and adapted to extend partly through the slot in the oblong plate, a secondary plunger mounted in said main plunger, a tumbler having two integral bosses and journaled in holes in the centers of the wall plates and positioned within the U-shaped plunger, said tumbler having a hole in its center portion of a size and shape for the end of a wrench to fit therein, an integral stud extension on its outer curved face, said secondary plunger having a notch therein for said tumbler extension to fit therein for moving the plunger, said secondary plunger having a hole across its minor axis, a coil spring mounted in compressed tension in said hole and adapted to prevent easy movement of said secondary plunger, said assembled parts held together by said wall plates by stud screws through the outer holes in the plates and the plain holes in the main supporting bars; a second oblong plate similar in shape to said first oblong plate and serving as a companion plate adapted for attachment to the other plate by said secondary plunger.

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