T. A. EDISON.

MOLD FOR CONCRETE CONSTRUCTION.

APPLICATION FILED DEC. 29, 1908.

1,123,261. Patented Jan. 5, 1915.

Fig. 1

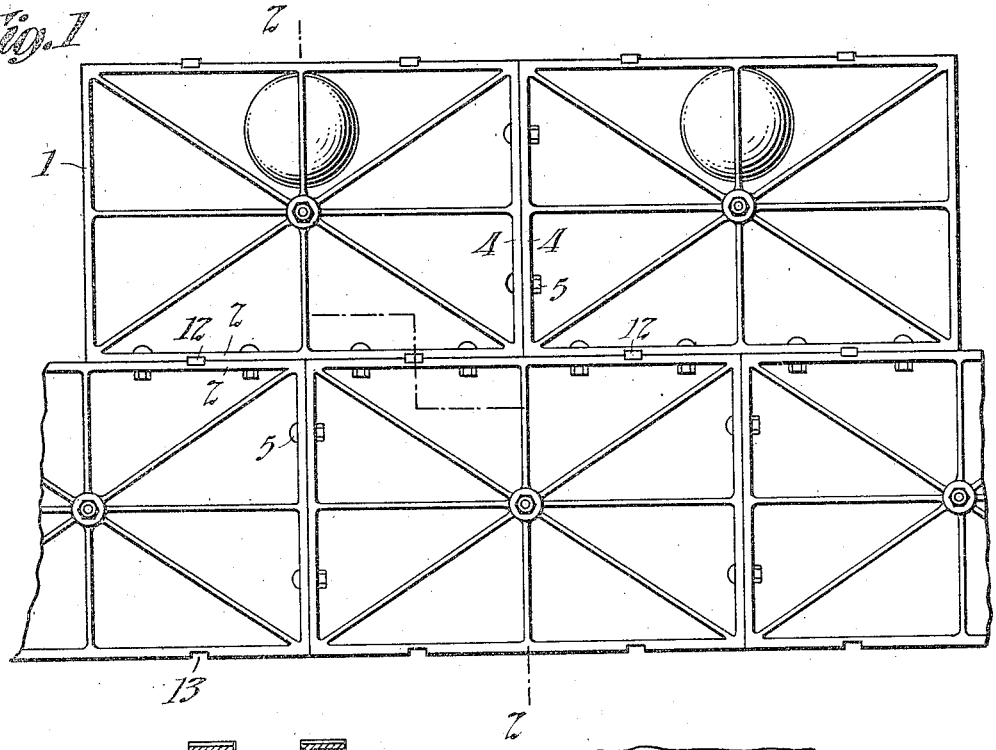


Fig. 2

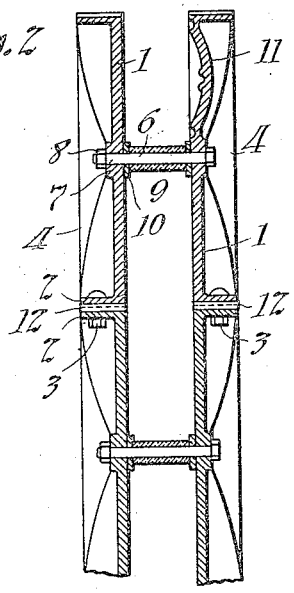


Fig. 3

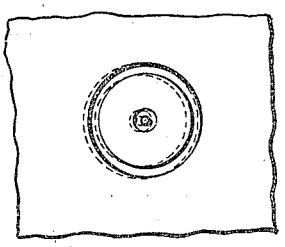
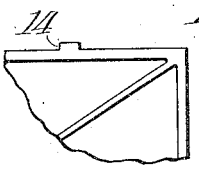


Fig. 4



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UNITED STATES PATENT OFFICE.

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MOLD FOR CONCRETE CONSTRUCTION.

1,123,261. Specification of Letters Patent. Patented Jan. 5, 1915.

Application filed December 29, 1908. Serial No. 469,885.

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, a citizen of the United States, and a resident of Llewellyn Park, West Orange, Essex county, New Jersey, have made a certain new and useful Invention in Molds for Concrete Construction, of which the following is a description.

My invention relates to molds for concrete construction, and particularly to molds for the construction of a complete dwelling of concrete, which may be poured at a single operation as disclosed in my application Serial No. 448,293, filed August 13, 1908.

The object of my invention is to construct molds for a complete dwelling made of concrete or Portland cement, said molds formed of cast iron sections, whereby those sections which serve to form artistic relief work on the concrete are provided with means by which the sections may be removed when the cement is weak, and without injury to the cement due to the removal of the molds.

In the case of high relief parts of a concrete house or other construction employing such delicate relief parts, the slightest side motion given the mold on removal of the same will break off the relief parts. In many cases, a lateral movement as slight as two or three one-thousandths of an inch will suffice to injure the relief work. Hence, I provide a means to prevent any such lateral movement when the sections are moved outwardly.

Attention is hereby called to the following drawings forming part of this specification, in which the same reference numerals represent corresponding parts throughout, and in which—

Figure 1 represents a side elevation of a number of sections of mold secured together, several of which sections are provided with surfaces for forming high relief work in the concrete. Fig. 2 represents a cross section on line 2—2 of Fig. 1. Fig. 3 is a detail view showing the concrete surface having high relief work formed by such a mold, and showing the effect of a lateral movement of the mold in removing the same. Fig. 4 is a detail view showing a modification of the means for guiding the removal of the molds.

The mold sections 1, 1, having horizontal flanges 2, 2, are secured together as by bolts 3 passing through said flanges and secured by nuts. The mold sections likewise have vertical flanges 4, 4, the various sections in alinement being secured each to the one laterally in line therewith as by bolts 5 passing through said flanges and secured by nuts. The mold sections may constitute the outer and inner surfaces for forming a wall or other portion of the concrete construction, in which case the molds may be secured together and spaced apart the requisite distance to form such a wall or construction by any suitable means, as for example, by means of the bolts 6 passing through bosses 7 on the mold sections, said bolts being secured by means of nuts 8 to the outer and inner mold sections, and being spaced apart as by spacing sleeves or members 9, which are preferably formed of concrete or other substance homogeneous with the material to be poured into the mold to form the structure. Wooden washers 10 may likewise be used.

The section of the mold designed to form a relief part in the concrete is shown at 11. The means which are employed for guiding the removal of one mold from another on taking down the mold in order that lateral movement of one mold relatively to the other may be prevented, is shown in Figs. 1 and 2 as the key 12, which fits within key ways as 13 formed in the adjacent surfaces of the flanges of sections, one of which is designed to be placed upon the other. It is obvious that in place of the separate key 12, the same may be formed integrally with the flange of one of the sections, as shown at 14 in Fig. 4, this being adapted to co-act with a corresponding key way formed in the adjacent mold section, although the separate key as shown in the first embodiment of the invention is preferable. The effect of lateral movement of the mold in removing the same is illustrated in Fig. 3, in which the full lines represent the proper position of an ornamental or relief part, and the dotted lines, a distorted position produced by the lateral movement of one of the mold sections in removing the same.

Having now described my invention, what I claim and desire to secure by Letters Patent of the United States is as follows:

1. In a mold for concrete construction, the combination of superimposed sections removably secured together, means for so securing them together and preventing movement of any section with relation to the other sections, and means between each pair

of superimposed sections for guiding the removal outwardly of either of the sections of a pair of superimposed sections and preventing lateral movement thereof relative to the other section of the pair, substantially as described.

2. In a mold for concrete construction, the combination of a plurality of contiguous sections, the corresponding face of each section constituting a part of the mold surface, and means between each pair of adjacent sections for causing one section of the pair to restrict relative movement of the other section of the pair to a movement in a direction substantially at right angles to the mold surface, substantially as described.

3. In a mold for concrete construction, the combination of a plurality of superimposed sections, each section having a pair of horizontal flanges, and the corresponding face of each section constituting a part of the mold surface, means for removably securing said sections together, each pair of superimposed adjacent sections being provided with registering notches in their upper and lower horizontal flanges respectively, and a member snugly fitting each pair of registering notches for restricting relative movement between said sections to a movement in a direction substantially at right angles to the mold surface, substantially as described.

4. In a mold for concrete construction, the combination of a plurality of contiguous sections and means coacting with the contiguous sections upon the outward removal of any section to prevent lateral movement thereof relative to the other sections during such outward removal, substantially as described.

This specification signed and witnessed this 22d day of December, 1908.

THOS. A. EDISON.

Witnesses:
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