J. S. AMBROSE.

DEVICE USED IN MOLDING WALLS.

APPLICATION FILED NOV. 24, 1914.

1,160,033. Patented Nov. 9, 1915.

Fig. 1.

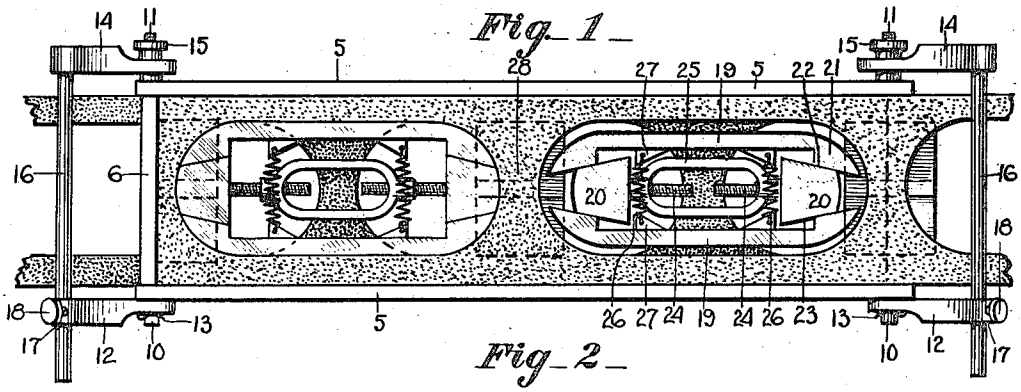


Fig. 2.

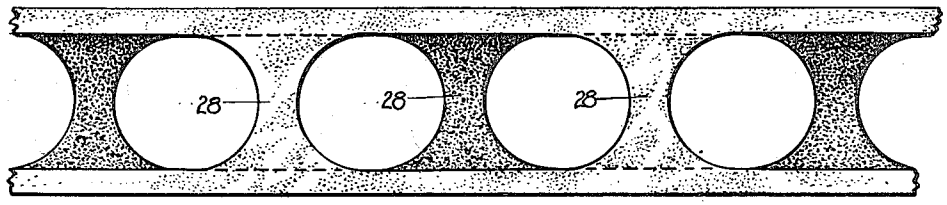


Fig. 3.

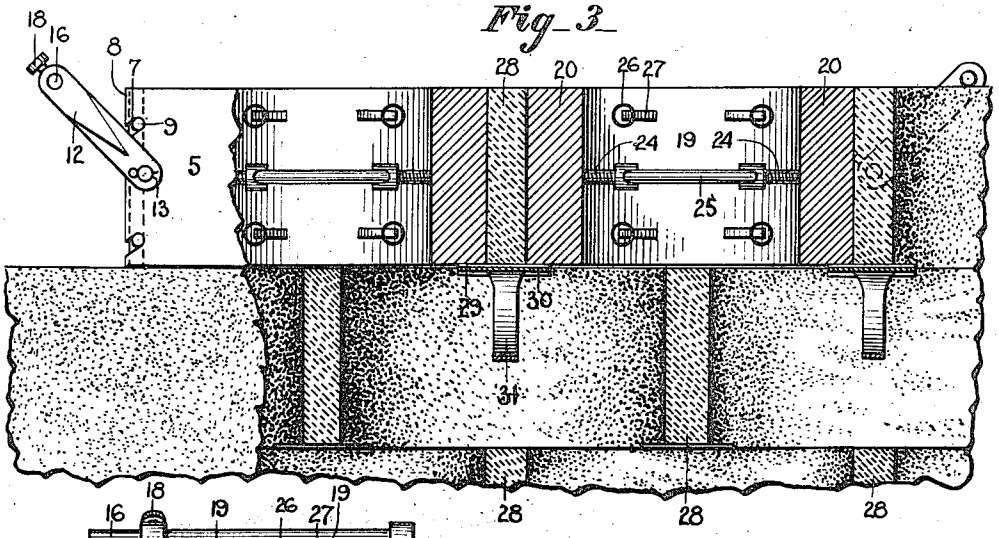
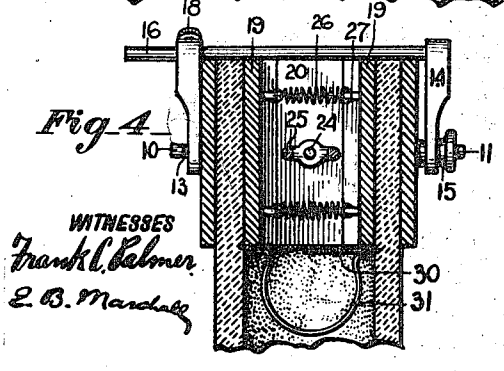


Fig. 4.



WITNESSES

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DEVICE USED IN MOLDING WALLS.

1,160,033. Specification of Letters Patent. Patented Nov. 9, 1915.

Application filed November 24, 1914. Serial No. 873,706.

To all whom it may concern:

Be it known that I, JOSEPH S. AMBROSE, a citizen of the United States, and a resident of Prescott, in the county of Yavapai and State of Arizona, have invented a new and Improved Device Used in Molding Walls, of which the following is a full, clear, and exact description.

My invention has for its object to provide a device used in molding a wall with openings which, in each course are staggered relatively to the openings in the adjacent courses so that a transverse tie will be disposed above and below each opening.

In constructing the wall I use side and end frames which are detachably secured together, the openings being formed by cores, the ends of which are supported by plates which also serve to support the transverse tie sections until they set, the said transverse tie sections being disposed as stated over the openings in the course therebelow.

The cores are constructed with sides having ends, the inner sides of which converge outwardly so that when the end pieces are moved outwardly by means provided, they will force and hold the sides apart, it being possible to draw the end pieces toward each other to free the cores from the wall.

Additional objects of the invention will appear in the following specification in which the preferred form of my invention is disclosed.

In the drawings similar reference characters refer to similar parts in all the views in which—

Figure 1 is a plan view showing the forms of molds in position and the wall in course of construction; Fig. 2 is a plan view of a wall constructed in accordance with my improvements; Fig. 3 is an enlarged longitudinal sectional view of Fig. 1; and Fig. 4 is a transverse sectional view of Fig. 1.

By referring to the drawings it will be seen in constructing the wall I make use of side forms 5 and end frames 6, the side forms 5 having slots 7 extending downwardly and outwardly through the ends 8 of the side forms 5 for receiving the pins 9 which project from the end forms 6. In this way the end forms 6 are held in place relatively to the side forms 5, the side forms 5 being positioned relatively to each other by the following means. Projecting outwardly from one of the side forms 5 there are pins 10 and projecting from the other side forms 5 there are screws 11, arms 12 being mounted on the pins 10 and being held in place by the cotter pins 13, the additional arms 14 being mounted on the nuts 15 which mesh with the screws 11 as shown in Fig. 1 of the drawings. To the arms 14 there are secured the rods 16, these rods 16 being disposed in the orifices 17 in the arms 12, the rods 16 being secured relatively to the arms 12 by the set screws 18. It will be understood that by turning the nuts 15 the side forms 5 having the screws 11, may be moved relatively to the companion side form 5, as may be desired. It will also be understood that by turning the set screws 18 the arms 12 and 14 may be moved away from each other.

The side forms 5 and the end forms 6 are used to mold the outer surfaces of the wall, the openings in the wall being formed by the cores which have side members 19 and end members 20, the side members 19 having ends 21 with inner sides 22, these inner sides 22 converging outwardly to be engaged by the sides 23 of the end members 20, which also converge outwardly. Each of the end members 20 of the core serves as a wedge and it is provided with a screw 24, the screws 24 being substantially in alinement and being engaged by a turnbuckle 25 so that by rotating the turn-buckle 25, the end members 20 of the core may be moved to and from each other as desired. When the end members 20 are moved away from each other, their action against the converging surfaces at the inner sides 22 of the ends of the side members 19, serve to move the side members 19 away from each other. When the turnbuckle 25 is turned to move the end members 20 of the core in the direction of each other, the side members 19 of the core are permitted to move toward each other under the influence of the springs 26, the terminals of which are secured to the stops 27, these stops 27 being provided to limit the inward movement of the end members 20 of the core. Should one of the end members 20 of the mold move inwardly more quickly than the other end member, the continued rotation of the turnbuckle 25 will bring this end member 20 into engagement with the stops 27 at the same end of the core and with the further rotation of the turnbuckle 25, the other end member 20 of the core will be drawn inwardly. When the cores which have been described, are spaced

apart, the transverse tie portions 28 of the wall will be formed and as the openings made by the molds in the next course will be positioned over the transverse tie portions 28 of the wall, it is necessary to make use of some means to support the transverse tie portions of the wall in the next course. Plates 29 and 30 are used for this purpose, the plate 29 moving against the surface of the plate 30 so that their outer edges may be drawn together. The plates 29 and 30 are connected by a resilient handle 31 which serves to hold the plates 29 and 30 extended relatively to each other; but it will, of course, be understood that when pressure is exerted against the terminals of the resilient handle 31, it will serve to move the plates inwardly relatively to each other, so that they may be removed from the wall through one of the openings when the transverse tie portions of the wall have set.

Having thus described my invention I claim as new and desire to secure by Letters Patent:

1. In a means of the class described, a core consisting of members spaced apart, ends serving as wedges movably disposed between the inner sides of the ends of the members, stops on the inner sides of the members for engagement by the said ends to limit their inner movement, and means connecting the ends for drawing them in the direction of each other.

2. In a means of the class described, a core consisting of members spaced apart, ends serving as wedges movably disposed between the inner sides of the members, stops on the inner sides of the members for engagement by the said ends to limit their inner movement, screws secured to the ends and disposed inwardly, and a turnbuckle meshing with the screws for the purpose specified.

3. In a means of the class described, a core consisting of members spaced apart, ends serving as wedges movably disposed between the ends of the members, screws secured to the ends and disposed inwardly, a turnbuckle meshing with the screws, stops to limit the inward movement of the ends relatively to the members and springs connecting the stops.

4. In a means of the class described, end and side forms secured together, and molds within the forms consisting of members spaced apart with the inner sides at their ends converging outwardly, ends movably disposed between the converging sides of the members, screws secured to the ends and disposed inwardly, a turnbuckle meshing with the screws, stops to limit the inward movement of the ends relatively to the members, and springs connecting the stops.

5. In a means of the class described, end and side forms secured together, a core disposed within the forms and consisting of members spaced apart, ends serving as wedges movably disposed between the ends of the members, means for moving the ends longitudinally of the members, and collapsible plates free from the core for supporting the ends of the cores and serving as a foundation for a transverse tie wall section.

6. In a means of the class described, a core consisting of members spaced apart with their inner sides at their ends converging outwardly, ends movably disposed between the converging sides of the members, screws secured to the ends and disposed inwardly, a turnbuckle meshing with the screws, stops to limit the inward movement of the ends relatively to the members, and springs connecting the stops.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH STUART AMBROSE.

Witnesses:

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