P. A. & L. P. DESLAURIERS.

COLUMN AND CEILING MOLD.

APPLICATION FILED JULY 29, 1909.

1,050,816.

Patented Jan. 21, 1913.

2 SHEETS—SHEET 1.

Fig. 4

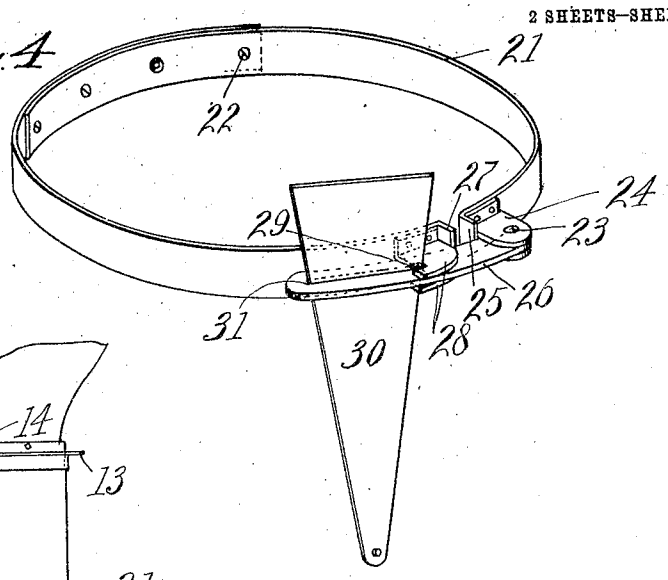


Fig. 1

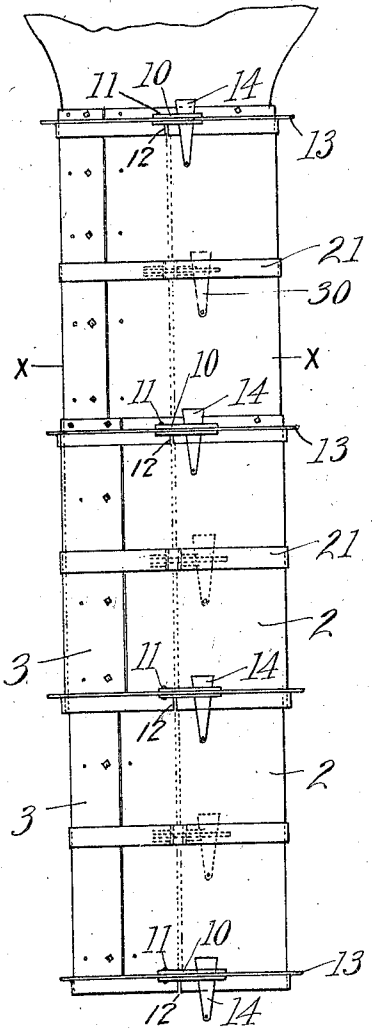


Fig. 5

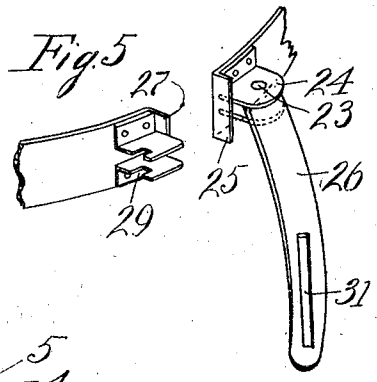


Fig. 2

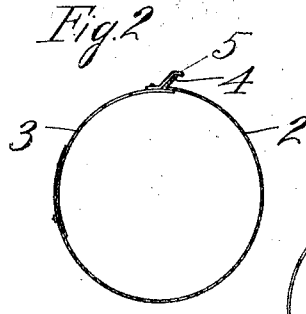
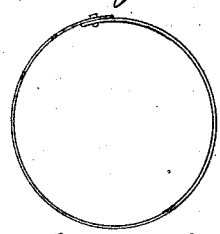


Fig. 3



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2 SHEETS—SHEET 2.

Fig. 6

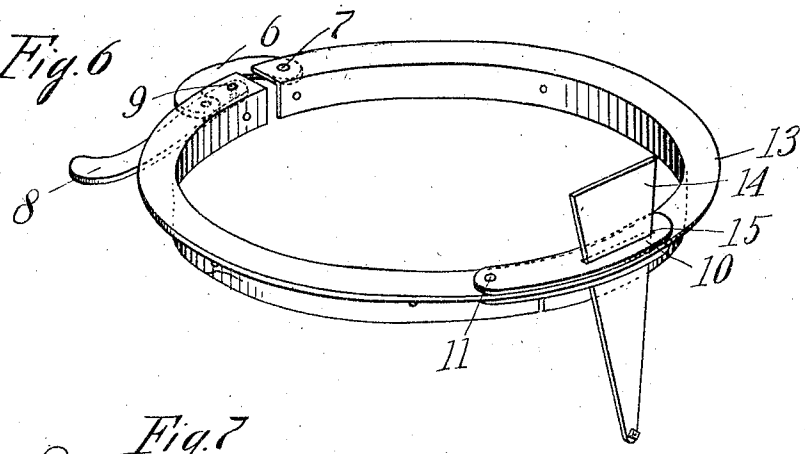


Fig. 7

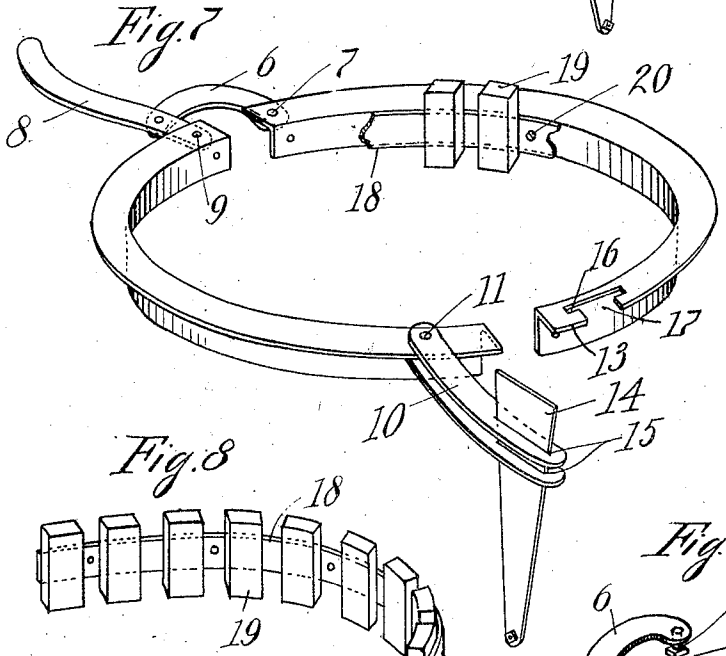
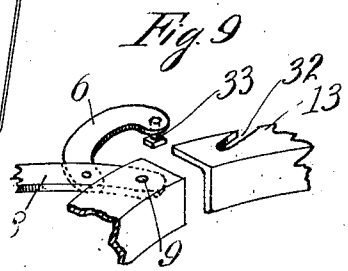


Fig. 8

Fig. 9



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UNITED STATES PATENT OFFICE.

PHILIPPE A. DESLAURIERS AND LOUIS P. DESLAURIERS, OF ST. PAUL, MINNESOTA, ASSIGNORS, BY MESNE ASSIGNMENTS, TO PHILIPPE A. DESLAURIERS AND LOUIS P. DESLAURIERS, COPARTNERS DOING BUSINESS UNDER THE FIRM-NAME AND STYLE OF DESLAURIERS COLUMN MOLD COMPANY.

COLUMN AND CEILING MOLD.

1,050,816. Specification of Letters Patent. Patented Jan. 21, 1913.

Application filed July 29, 1909. Serial No. 510,307.

To all whom it may concern:

Be it known that we, PHILIPPE A. DESLAURIERS and LOUIS P. DESLAURIERS, citizens of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Column and Ceiling Molds, of which the following is a specification.

Our invention relates to means for constructing concrete columns wherein a divided casing or mold is employed and consists particularly in improved means for securing and holding the mold in position for receiving the concrete.

To this end our invention consists in the features of construction, combination and arrangement of parts hereinafter particularly described and claimed.

In the accompanying drawings forming part of this specification, Figure 1 is a side elevation of our improved invention; Fig. 2 is a section on line x—$\dot{x}$ of Fig. 1; Fig. 3 is an end view of a modified construction of casing; Fig. 4 is a perspective view of a reinforcing ring for the mold; Fig. 5 is a similar view of a fastening for the ends of said ring; Fig. 6 is a perspective view of a templet ring constructed to coöperate with the reinforcing ring; Fig. 7 is a similar view of the templet ring open and showing a filling ring partly broken away; Fig. 8 is a perspective view of the filling means for the templet ring broken away; and Fig. 9 is a detail of a modified form of templet ring fastening.

In the drawings we show two forms of mold. In the forms shown in Fig. 2 the mold is made up of a main sheet 2 and extension sheet 3 adjustably connected, the free edge of the main sheet 2 being formed with a flange 4 overlapping the outwardly flanged edge 5 of the plate 3. In the form shown in Fig. 3 the mold is shown of a single sheet connected by means of bolts.

In order to hold the mold in shape and to provide for different sizes of column we provide the coöperating templet ring shown in Figs. 6 and 7 and reinforcing ring shown in Figs. 4 and 5. The templet ring is in the form of a rigid split ring made preferably of angle iron, the halves of the ring having a clamping hinge connection at one end, as by means of the curved lever arm 6 having pivotal connection 7 at one end with the adjacent end of one ring member and at the other end with the inner end of a lever arm 8, the lever arm having fulcrum support 9 upon the adjacent end of the other ring member. By turning the lever arm 8 into the position shown in Fig. 6 the ends of the ring members will be drawn together, and by turning the lever arm outwardly as shown in Fig. 7 the ring members are separated. The free ends of the halves of the templet ring are adjustably connected by the following means: An arm 10 has pivotal support 11 upon the free end of one ring member and is horizontally divided to form a slot 12 to receive the outwardly extending flange 13 of the free end of the other ring member. A wedge 14 is fitted in vertical openings 15 in the free end of the arm 10, which openings are adapted to register with an opening 16 in the flange 13 of the other ring member, a slot 17 extending through the flange 13 to the opening 16. In order to allow the arm 10 to be closed over the flange 13 the wedge 14 will be lifted high enough to allow it to pass through the slot 17 to the opening 16 and the arm 10 then closed over the flange as shown in Fig. 6. The wedge 14 may then be driven down through the opening 16 to draw the free ends of the ring members together. In order to further adjust the size of the templet ring we provide the filling ring shown in Fig. 8 consisting of a flexible band 18 to the inner side of which is secured a plurality of interspaced blocks 19. This band may be secured as by means of screws 20 inside the templet ring.

In Figs. 4 and 5 we show a reinforcing ring to be used in coöperation with the templet rings to hold the mold in shape. This reinforcing ring is shown composed of two flexible bands 21 adjustably connected as by means of the bolts 22. The free ends of the ring are adjustably connected as by the following means: Having journal support 23 in a bracket 24 secured inside the out turned free end 25 of the ring is a lever arm 26. Similarly secured adjacent to the opposite out turned free end 27 of the ring are bracket plates 28 provided with inner end notches 29. The lever arm 26 is adapted to

be turned between the bracket plates 28 as shown in Fig. 4, and to be secured, as by means of a wedge 30 extending through a slotted opening 31 in the lever arm and fitted at one edge into the notches 29. The reinforcing ring may thus be adjusted by means of the bolts 22 to fit the mold and tightly clamped by driving the wedge downward in the slotted opening 31 tightly drawing together the free ends of the ring.

In use the desired number of non-flexible templet rings will be placed around the mold at suitable distance apart and tightly clamped by means of a cam lever 6 and the wedge 14, to shape the mold and hold it in position. To assist in holding the mold the flexible reinforcing rings will be placed around the mold at desired distances between the templet frames and adjusted and tightened by means of the bolts 22 and the wedge 30. The reinforcing rings being flexible will shape themselves to the mold, the mold itself being shaped by the templet rings. The templet rings are adjusted to fit different sizes of mold by means of the flexible filling ring 18. The filling ring 18 being flexible will fit itself to the variations in size of the templet frame.

In Fig. 9 the cam lever 6 carries an end pin 33 fitted to a slotted opening 32 in the flange 13 of the adjacent free end of the ring. The ends of the ring connected by the cam lever 6 may thereby be separated and permit of a hinge connection between the opposite ends of the ring instead of the arm 10.

We claim as our invention:

1. The combination with a split mold of the class described, of clamping means therefor comprising a surrounding nonflexible templet ring, and an interspaced flexible reinforcing ring.

2. The combination with a mold of the class described, of shaping and supporting means therefor comprising a surrounding nonflexible templet ring, a flexible ring arranged therein, and a flexible reinforcing ring surrounding said mold and interspaced from said templet ring.

3. In combination with a mold of the class described, a surrounding nonflexible templet ring, wedge means for adjusting said ring, and a flexible filling ring for said templet ring.

In testimony whereof we affix our signatures in presence of two witnesses.

PHILIPPE A. DESLAURIERS.
LOUIS P. DESLAURIERS.

Witnesses:
H. SMITH,
GEORGE VOELKER.