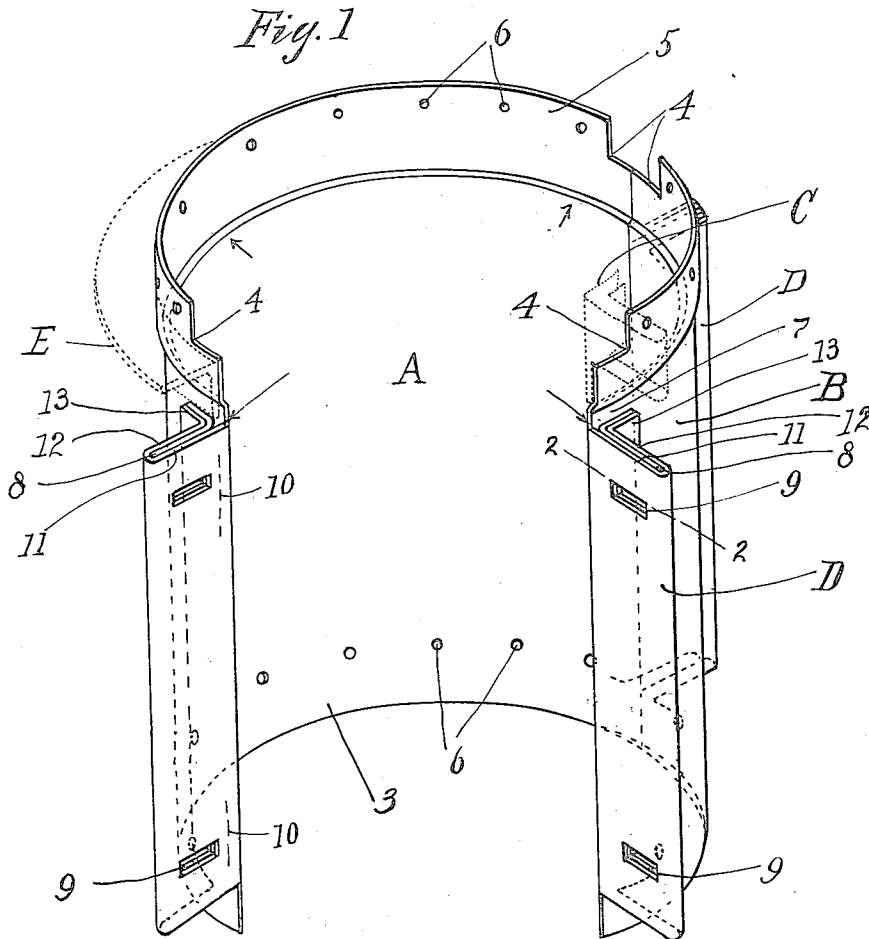
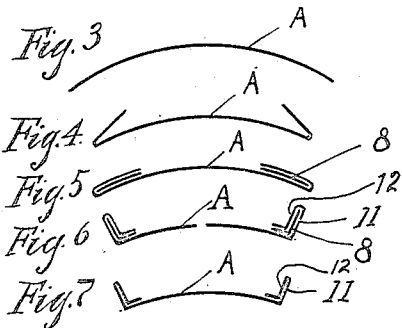
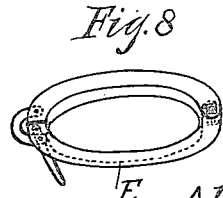
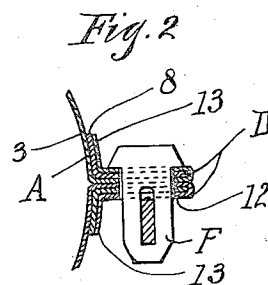


A. J. DES LAURIERS.
COLUMN MOLD.
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1,282,200.

Patented Oct. 22, 1918.



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COLUMN-MOLD.

1,282,200.

Specification of Letters Patent.

Patented Oct. 22, 1918.

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To all whom it may concern:

Be it known that I, ALBERT J. DES LAURIERS, a citizen 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-Molds, of which the following is a specification.

This invention relates to improvements in column molds and particularly to the type designed for use in casting concrete columns cylindrical or oval in cross section.

An object of the invention is to provide an improved mold having comparatively smooth inner wall surface effected by reducing to a minimum the number of rivet and bolt heads.

A further object of the invention is to provide an improved sectional mold, the sections whereof are formed of single sheets of metal having integral cooperating flanges uniformly punched to render them interchangeable.

The invention consists in the construction, combination, and arrangement of parts illustrated in the drawings and hereinafter described and claimed.

Figure 1 is a perspective view of the invention showing a vertical section of a column mold with two circumferential sections joined together.

Fig. 2 is a sectional view on line 2—2 of Fig. 1.

Figs. 3—4—5—6 and 7 are diagrammatic end views of a circumferential mold section showing the shape of the shell after each operation in the process of manufacture, and

Fig. 8 is a perspective view of a clamping ring.

Referring to Fig. 1, of the drawings—A and B represent respectively a wide and narrow circumferential section of a cylindrical column mold joined together by means of slotted bolts F in holes 9 in the cooperating flanges D the latter being radially disposed on the longitudinal edges of the shell 3. The shell 3 extends at both ends beyond the ends of the flanges and has notches 4 at its upper outer corners. The shell is suitably curved to form a round column, and is of enlarged diameter at its top to form a bell end or collar 5 adapted to telescopingly receive the lower end of the next upper section, a fragment of which is shown in dotted

lines at C (Fig. 1) the inner faces of the superimposed sections being flush. The sections are bolted together by means of bolts in registering holes 6 at the top and bottom of each section. By offsetting the shell, as described in the foregoing, only one row of bolts is required at each end connection, it having hitherto been the practice to connect the sections by separate bands requiring two rows of bolts. To facilitate manufacturing of the molds a small space 7 between the ends of the angles D and the offset is provided, to afford clearance for a ridge on one of the die members without which it would be impractical to bell the end of the shell close to the flanges. A split clamping ring E of any suitable pattern, such as is shown in Fig. 8, fits between the ends of the flanges and is adapted to clamp the assembled sections circumferentially to hold them in cylindrical position.

In Figs. 3—4—5—6 and 7 is shown, step by step, the process of forming the flanges D, which latter are bent in a brake on the longitudinal edges of the shell 3. In Fig. 3 the shell is shown bent to the desired curvature and in Fig. 4 the edges are shown acutely returned forming a leaning flange. In Fig. 5 the edges are shown returned flatly upon the sheet, a reinforcing member 8 having been inserted. In Fig. 6 the returned edge together with the member 8 is shown bent outwardly so as to form the flanges D radiating from the center of the curve of the shell, leaving a lateral leg 13 overlying the angle member 8 and the shell.

The rectangular bolt holes 9 are thereafter punched as required. In molds of small diameter the reinforcing member 8 is omitted as shown in Fig. 7. The flange D therefore comprises a main flange 11 and an integral auxiliary flange 12 having a reinforcing angle member 8 between them.

The pressure in the mold when filled with soft material is outward, as indicated by the arrows, placing the shell in tension. Obviously there is a tendency to separate and bend the flanges along the line 10, the reinforcing angle member 8 and the auxiliary flange 12 being provided to oppose this tendency. Further, the internal pressure tends to shear the shell from the main flange at the bending line, (in the direction indicated by the arrows) the inner leg of the reinforcing

ing angle member 8 and that of the auxiliary flange being provided to receive this pressure to counteract said tendency.

I claim:

5 1. In a column mold section of the class described comprising an arcuate sheet having straight edges bent outwardly to form flanges radially disposed with respect to the arcuation of said sheet each flange comprising a main flange and an auxiliary flange 10 integral with said main flange and having its face adjacent and parallel to that of the latter and bent laterally at its free end into parallelism with the outer surface of said arcuate sheet, said main and auxiliary flanges 15 having registering bolt holes for the purpose set forth.

2. In a column mold section of the class described comprising an arcuate sheet bent 20 upon itself at its edges to form parallel outwardly extending main flanges, and an auxiliary flange on each of said main flanges and facially in parallelism therewith said auxiliary flange being bent at an angle to overlie 25 said arcuate sheet said main and auxiliary flanges having bolt holes in registering relation for connecting the adjoining section.

3. In a column mold section of the class described comprising an arcuate sheet having parallel edges folded outwardly upon 30 itself to form at each of said edges a main and an auxiliary flange having parallel faces, a reinforcing angle member folded between said main and auxiliary flanges and bolt holes 35 in registering relation in said main and aux-

iliary flanges and said angle member for the purpose set forth.

4. In a column mold section of the class described comprising a reinforcing angle member, an arcuate sheet having parallel 40 edges folded to form outwardly extending angles adapted to envelop said reinforcing angle member and comprising an outwardly bent portion folded back over said reinforcing angle member and conforming to the 45 facial contour thereof, and bolt holes in registering relation piercing said reinforcing angle member and the folds of said flange for the purpose set forth.

5. In a column mold of the class described 50 comprising circumferential sections forming cylindrical sections said cylindrical sections being telescopingly connectible endwise with each other to form an extended column each 55 of said circumferential sections comprising an arcuate plate having an integral outwardly extending flange on each of its longitudinal edges, said plate extending beyond the ends of said flanges, one of said extended ends being bent circumferentially out- 60 wardly to form a recess to receive the end of the adjacent section to be connected thereto.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT J. DES LAURIERS.

Witnesses:

GEORGE VOELKER;
W. E. GODDARD.