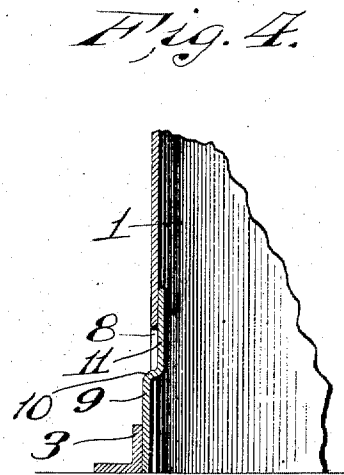
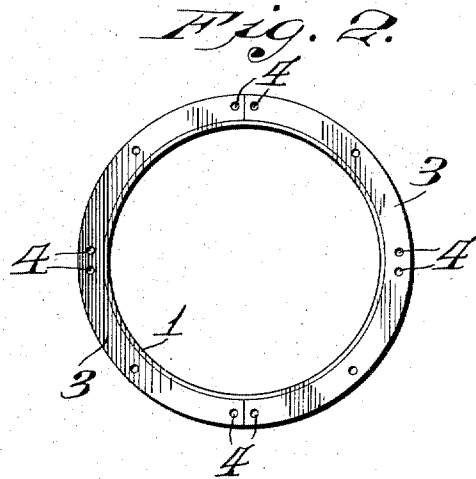
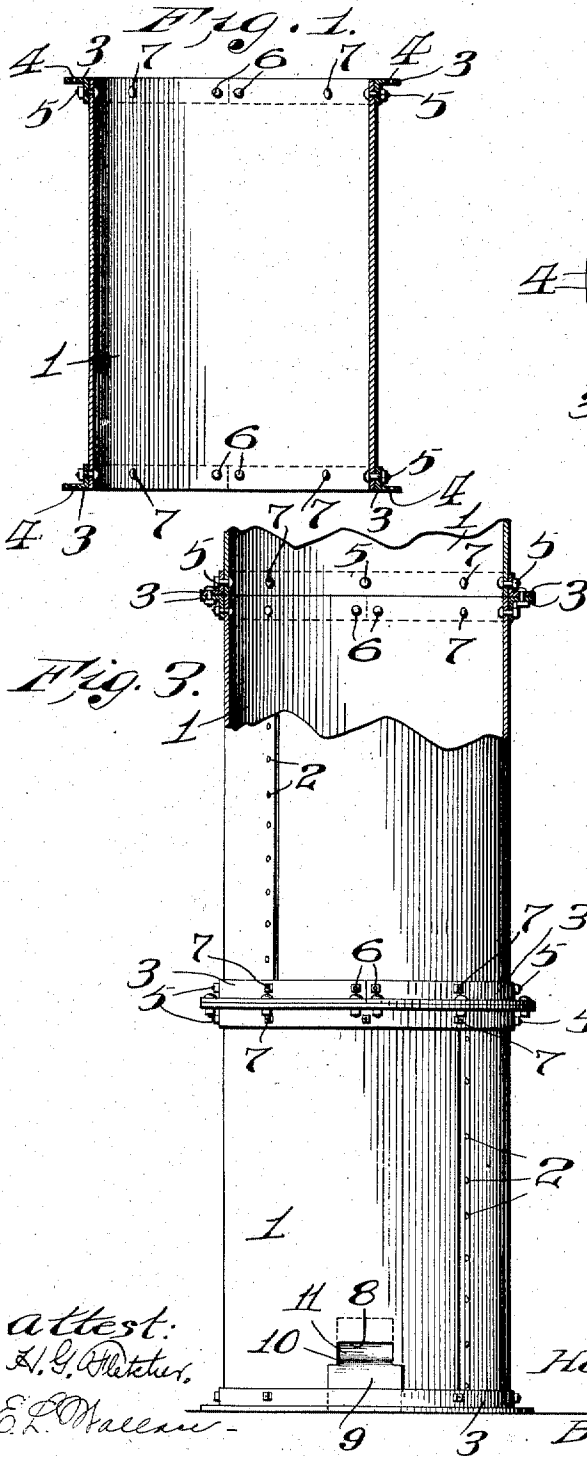


H. J. EBERLE.
CONCRETE COLUMN MOLD.
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982,769.

Patented Jan. 24, 1911.



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UNITED STATES PATENT OFFICE.

HERMAN J. EBERLE, OF ST. LOUIS, MISSOURI.

CONCRETE-COLUMN MOLD.

982,769.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HERMAN J. EBERLE, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Concrete-Column Molds, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved mold for concrete columns, and consists in the novel construction and combination of parts hereinafter described and pointed out in the claim.

The object of my invention is to provide an improved mold for use in forming concrete columns in the most economical and efficient manner, and which shall be simple and durable in construction and of low cost.

In the drawings, Figure 1 is a sectional-elevation of one section of my improved mold. Fig. 2 is a plan-view of one of the split coupling-rings. Fig. 3 is a sectional-elevation of a series of the mold-sections, set up. Fig. 4 is a detail-section of the lower portion of the base-section.

The mold is made up of a series of sheet-metal sections 1, having their meeting-edges temporarily secured together by means of rivets or bolts 2, and removably mounted "end-to-end" so that their seams will "break joints"; split coupling-rings 3 preferably made of curved angle-bars L-shaped in cross-section and provided with pairs of adjoining bolt-holes 4 symmetrically-located in the vertical and horizontal flanges of said bars, whereby said coupling-rings may be used interchangeably on the ends of said sheet-metal sections, and whereby the abutting ends of the said rings will "break joints" with those of the rings above and below them in the erected mold, as shown in Fig. 3. The semi-circular halves of the rings 3 are temporarily fastened to the ends of the sheet-metal sections 1 by means of bolts 5. Said bolts 5 are to be located temporarily only in the holes through which they are passed in the vertical flange of said split rings, and in the corresponding holes formed near the ends of the sheet-metal sections 1. Said holes in the said rings and in said sheet-metal sections 1 are arranged symmetrically in said parts, so that all of the said rings and all of said sheet-metal sec-

tions can be used interchangeably, in breaking joints during the erecting operation. In other words, there are pairs of adjoining holes for the bolts 6 formed in the sheet-metal sections diametrically-opposite each other, and the pairs of holes 4 in said horizontal flanges of the rings are also diametrically-opposite each other. Said pairs of symmetrically-located holes in the flanges of said rings are furthermore symmetrically-located at an angle of 45 degrees apart in the preferred arrangement, as shown, but of course the space between the said pairs of holes (both in said rings and correspondingly in the sheet-metal sections) may be varied if desired, and the result will be practically identical in either case. Additional bolt-holes for additional bolts 7 are located intermediately of the said pairs of holes and bolts.

A cleaning-out hole 8 is formed in the base of the base-section so that pieces of wood, shavings &c., which may have accidentally fallen into the mold during the erection of the necessary carpenter-work around a new building, can be readily removed from the completed mold just prior to pouring in the concrete.

A detachable door 9 covers said cleaning-out opening during the operation of pouring in the concrete. Said door 9 has its lower portion located between the base ring 3 and the outer wall of the base-section 1, and the lower portion of said door is wider than said opening and projects laterally beyond the edges of same, so that the lower portion of said door cannot pass within said section; but the upper portion of said door is cut narrower than said lower portion, so that a shoulder 10 is formed at the upper end of said lower portion of said door, and a narrow portion 11 is formed above said shoulder, and the narrow portion is bent inwardly a slight distance (corresponding to the thickness of the sheet-metal section) and thence said upper-portion is bent upwardly again, so that it covers said opening although located upon the inside of said section.

The operation is as follows: The door 9 may be detached by sliding it upwardly until its lower end is raised above the upper edge of the adjacent ring 3, when the door may be readily drawn out of said opening, to permit cleaning out of articles not wanted

in said mold. The replacement of said door is obvious. Before pouring the concrete the mold should be erected as shown in Fig. 3, with the edges of the sections 1 united by 5 rivets 2; with the ends of said sections abutting, but with their seams arranged to "break joints," and with the split coupling-rings at the ends of said sections also arranged so that the opposite joints in them 10 "break joints" with each other and with the seams of said sheet-metal sections. The rings of the abutting sections are bolted together temporarily by bolts passed through said pairs of holes 4 and through the holes 15 located intermediate of them. The mold will then be ready for pouring in the concrete. After the concrete has been allowed to "set" in the mold for a sufficient length of time, the coupling-rings are removed by 20 detaching their bolt-nuts which have secured them together at the abutting ends of the sections, and by also removing the nuts from the bolts which have secured them to said sheet-metal sections; after which the 25 workman should cut the rivets or bolts 2 which secured the edges of said sections, when the sections may be readily "opened

up" and removed from the completed concrete-column, to be again used as desired.

What I claim is:

The improved concrete mold, comprising 30 a series of sheet metal sections having their meeting edges secured together and the seams of adjacent sections arranged to "break joints" and said sections having 35 symmetrically-located pairs of adjoining holes near the ends of said sections, and a series of split coupling rings L-shaped in cross section and having also symmetrically-located pairs of adjoining holes formed in 40 both vertical and horizontal flanges and said rings mounted interchangeably on the ends of said sections with the joints in said rings "breaking joints" with the joints of the 45 other split coupling rings and with the joints of said sections, substantially as shown and described.

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

HERMAN J. EBERLE.

Witnesses:

E. E. LONGAN,
E. L. WALLACE