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PATENTED APR. 4, 1905.

L. F. BRAYTON.
FORM FOR CONSTRUCTING CONCRETE STEEL COLUMNS.
APPLICATION FILED AUG. 22, 1904.

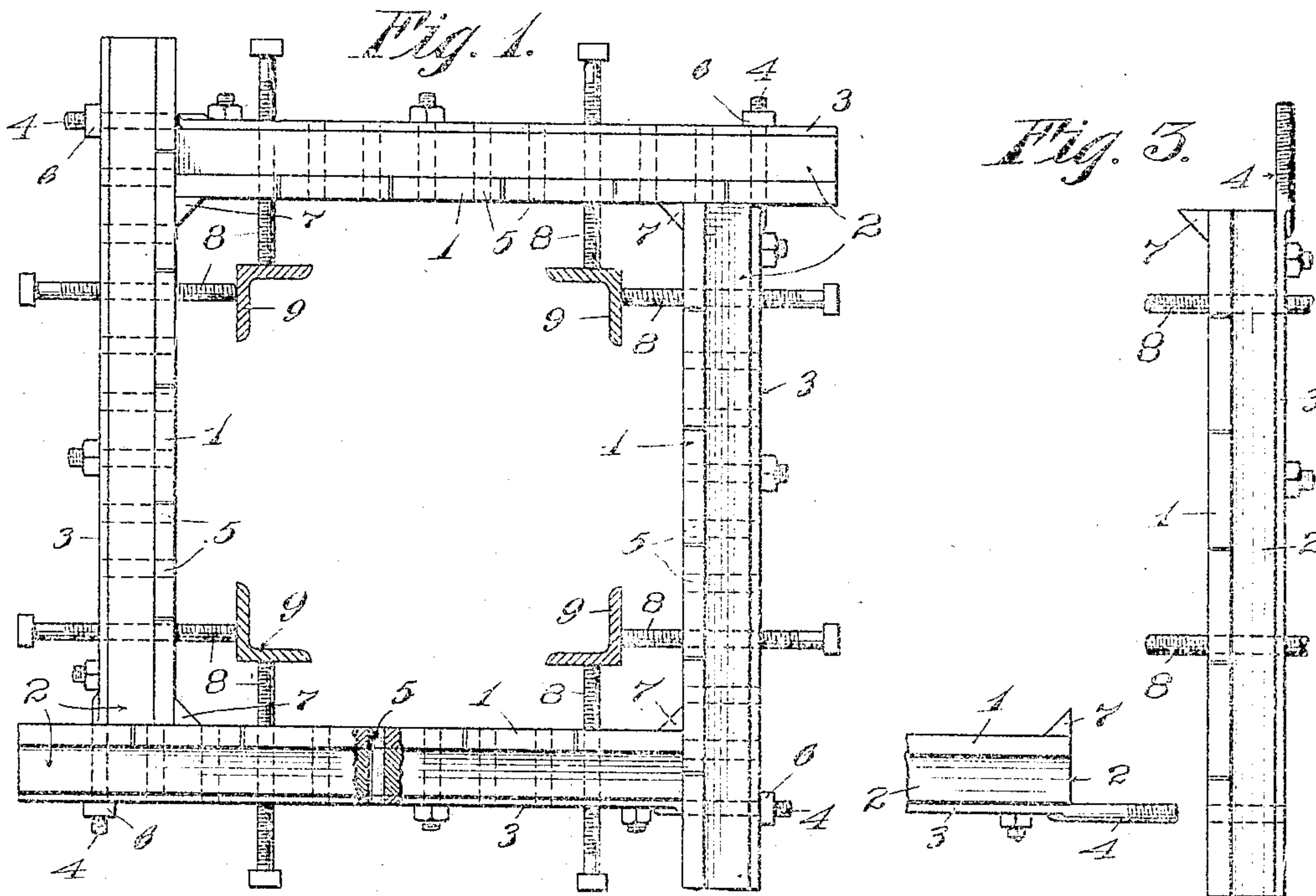
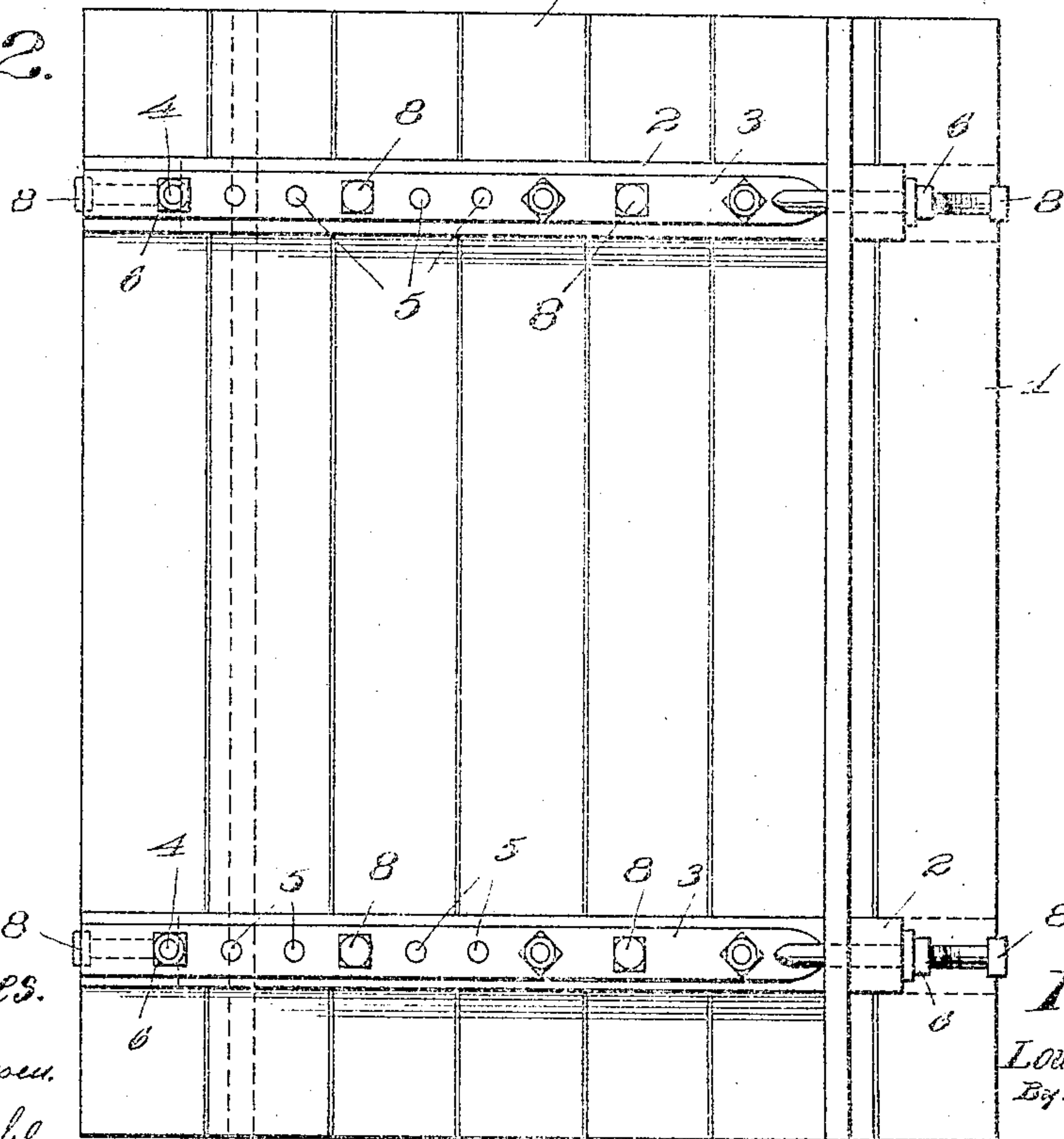


Fig. 2.



Witnesses.

E. W. Jeppesen.
A. H. Opsahl.

Inventor.

Louis F. Brayton.
By his Attorneys.

Williamson, Merchant.

UNITED STATES PATENT OFFICE.

LOUIS F. BRAYTON, OF ST. PAUL, MINNESOTA.

FORM FOR CONSTRUCTING CONCRETE-STEEL COLUMNS.

SPECIFICATION forming part of Letters Patent No. 786,622, dated April 4, 1905.

Application filed August 22, 1904. Serial No. 221,594.

To all whom it may concern:

Be it known that I, LOUIS F. BRAYTON, 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 Forms for Constructing Concrete-Steel Columns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has for its object to provide an improved form for use in the construction of concrete columns, and especially adapted for use in the erection of concrete-steel columns of the character set forth and claimed in my pending application, Serial No. 221,592, filed August 22, 1904, entitled "Concrete-steel construction." In the column illustrated in my said pending application a skeleton steel column made up of a plurality of supplemental steel corner members and transverse tie-straps is embedded within the concrete body of the column. My improved form herein set forth and claimed is made up of a plurality of separable plates having means for detachably securing them together and having means for securing the form around the steel column.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a plan view of the complete form shown as applied in working position to a steel column of the character referred to above. Fig. 2 is a side elevation of the form shown in Fig. 1; and Fig. 3 is a detail in plan with some parts broken away, showing several of the side plates of the form and illustrating the manner in which they may be put together and separated.

The four side plates 1 are, as shown, made up of a plurality of boards that are rigidly united by cleats 2. Bolted or otherwise rigidly secured to the cleats 2 are metallic straps 3, that terminate at one end in longitudinally-projecting screw-threaded stems 4. The cleats 2 are formed with a plurality of bolt-passages 5, that extend also through the straps 3 and are threaded through the said straps. When

the side plates 1 are placed together, one end of each side plate abuts against the face of the adjacent side plate, which extends at right angle thereto, and the threaded stems 4 extend through certain of the perforations 5, as clearly shown in Fig. 1. The threaded stems 4 are of such diameter that they will pass freely through the perforations without threaded engagement therewith, and on their outer ends they are provided with nuts 6, which when tightened press against the straps 3 and tightly draw the abutting plates 1 together. On one end of each side plate 1 is a vertically-extended fillet or fillet-forming cleat 7, which abuts against the face of the adjacent plate. Screw-threaded clamping-rods 8 fit with screw-threaded engagement in certain of the perforations 5 and are adapted to be shifted from the one perforation to the other.

The numeral 9 indicates the four vertical corner members of the steel column around which the concrete column is to be formed by the use of my improved form or mold.

In constructing the concrete column the steel column is of course first set up, and the concrete is thereafter filled within and around the same, the proper shape being given to the concrete body by my improved form. This form may be very quickly applied to the corner members of the steel column and may be properly adjusted to any desired size, so that the concrete will embed the steel column to the desired depth. When the form is applied, it is supported in proper position by means of the clamping-screws 8, which then are screwed against the flat faces of the corner members of the steel column, as shown in Fig. 1. As already indicated, the plurality of perforations 5, which loosely pass the stems 4, afford means for adjusting the side plates so as to form a column of any desired size. The form illustrated may, as is evident, be adjusted either to form a column which is square or oblong in cross-section. Fillet-strips 7 of course form the column with beveled corners.

This improved form will usually be made up of several longitudinal sections completing the length of the column.

The device described, while extremely simple, greatly facilitates the construction of con-

crete columns, saving time and cost in construction thereof.

From what has been said it will be understood that the device described is capable of
5 modification within the scope of my invention as herein set forth and claimed.

I claim---

1. In a form for constructing concrete columns, a plurality of plates in rectangular
10 arrangement each plate abutting edgewise against the face of an adjacent plate, each plate having means for adjustably connecting it to an adjacent plate, and each plate having clamp-
15 ing devices working transversely therethrough and engageable with metallic members of a column, substantially as described.

2. In a form for constructing concrete columns, a plurality of plates in rectangular
20 arrangement, each plate abutting edgewise against the face of an adjacent plate, each plate having nutted stems or bolts fitting any one

of a plurality of perforations in the adjacent plate, and each plate having clamping-screws working transversely therethrough and engageable with metallic members of a column, substantially as described.

3. The combination with a plurality of plates 1, in rectangular arrangement, each plate abutting against the face of an adjacent plate, and each having a plurality of perforations 5, of nutted stems or bolts 6 projecting from the ends of said plates 1 and insertible through any of the perforations 5 of an adjacent plate, and the thrust-screws 8 engageable with any of the said perforations 5, all substantially as and for the purposes set forth.

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

LOUIS F. BRAYTON.

Witnesses:

H. D. KILGORE,

F. D. MERCHANT.