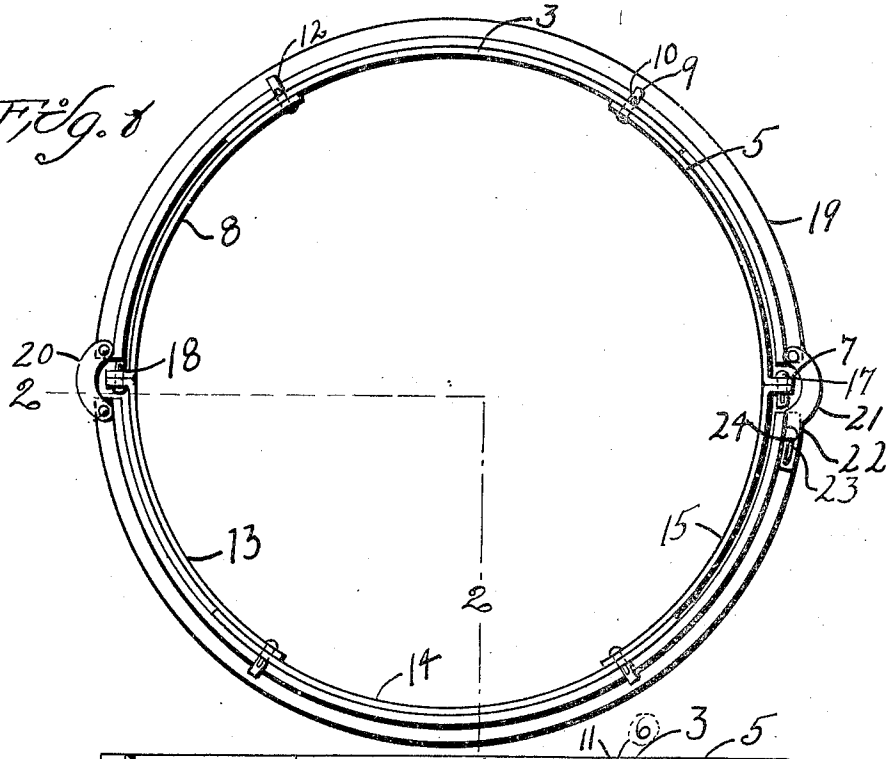
Jan. 30, 1923. 1,443,459.

F. CARTY.

CONCRETE MOLD.

FILED AUG. 10, 1921.

Fig. 1



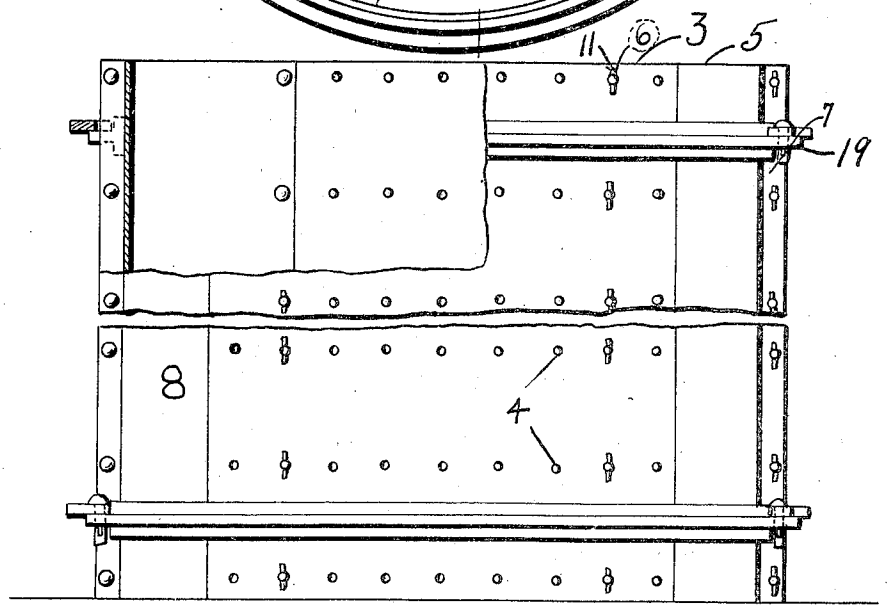


Fig. 2

INVENTOR

FRANK CARTY,

by Arthur C Eckert ATTORNEY

Patented Jan. 30, 1923. 1,443,459

UNITED STATES PATENT OFFICE.

FRANK CARTY, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO WILLIAM H. BIEBUSCH, OF ST. LOUIS, MISSOURI.

CONCRETE MOLD.

Application filed August 10, 1921. Serial No. 491,085.

To all whom it may concern:

Be it known that FRANK CARTY, a citizen of the United States of America, residing in the city of St. Louis and State of Missouri, has invented certain new and useful Improvements in Concrete Molds, of which the following is a specification.

The object of my invention is to devise a collapsible adjustable concrete mold for use in forming re-inforced concrete columns and beams. In molding concrete columns of different cross-sectional areas, it becomes necessary to have molds of different dimensions. It is possible to have a mold for each diameter, for instance in a column of circular section. This necessitates the use of a great many different molds. My object is to have one mold for all sizes of columns of similar section, that is to say to have one mold for columns of circular section and another mold for columns of rectangular section, the molds being adjustable as to size. A further object is to design an adjustable mold which is simple in construction, made of few parts, durable, one that lends itself readily to multiple production, one that will be rigid when in position and that will occupy little space when collapsed, and one that will be relatively light in weight and made of standard materials.

With these and other objects in view, my invention has relation to certain novel features of construction and arrangement of parts as will hereinafter be more fully described, pointed out in the claim and illustrated in the drawings in which

Fig. 1 is a plan view of one of my molds made with circular section, and

Fig. 2 is a fragmental sectional elevation of my device taken along the line 2—2 of Fig. 1.

Numeral 3 designates a plate of relatively thin, pliable metal being bent in the arc of a circle and having holes 4 formed therein. The holes 4 are positioned in vertical lines as well as horizontal lines as is shown in Fig. 2. Numeral 5 designates a plate of similar construction to that of plate 3 with the exception that it has but one vertical row of holes 6 formed therein and that the edge of the plate farthest from the row of holes 6 has a flange 7 formed integral therewith. Numeral 8 is a plate formed similarly to plate 5. The rows of holes such as 6 are formed near the edge of the plates 5 and 8 as is best shown in Fig. 1. Numeral 9 designates a bolt which passes through one of the holes in the plate 5 and one of the holes in the plate 3 and terminates on the outside of the plate 3 and has an eye 10 formed in its shaft near its outer end. Numeral 11 designates a pin which is passed through the eye 10 of the bolt 9. Numeral 12 designates a similar bolt connecting the plate 3 with the plate 8. As many bolts, such as 9, are provided as there are holes in a vertical row of holes such as 6. It will be seen that by positioning the bolts such as 9 and 12 through a predetermined vertical row of holes in the plate 3, that the radius of the semi-circle formed by the plates 5, 8 and 3 may be varied. It will also be seen that as the diameter is diminished, the ends of the plate 3 will project on the outside of the plates 5 and 8. To complete the circle, plates 13, 14 and 15 are provided. Numeral 17 designates a bolt passing through the flange on plate 5 and 15 and numeral 18 designates a bolt passing through the flange on the plate 8 and the flange on the plate 13. These bolts are of similar construction as are the bolts 9 and 12.

In order to make the structure rigid when the mold is filled with concrete and to prevent the weight of the concrete from distorting the mold, the bands, such as 19, are provided at regular intervals in the height of the mold. These bands are of T section and are cut in two parts which are linked together on one side by the link 20 and on the other by the link 21 which link 21 has one of its ends 22 made detachable from the one end of the band. A locking means for securing this link to the loose end of the band is provided by the slot 23 and the wedge 24. The bands are not diametrically adjustable for the reason that they occupy so little space and are so inexpensive that it is easier to provide bands of different diameters than it is to have adjustable bands. This argument is not true for the molds themselves. It will be seen that owing to the fact that the molds are made in halves, that they can be conveniently nested.

What I claim and mean to secure by Letters Patent is:

In combination with a mold comprising plates having vertical lines of holes formed therein, bolts passing through the holes in

said plates, said bolts having eyes formed in their shafts near their outer ends, pins which pass through the eyes of said bolts, flanges formed on oppositely disposed plates with holes therein and bolts passing therethrough, for selectively securing said oppositely disposed plates together, bands of T section cut in parts and linked together, and locking means for selectively securing two of the ends of the parts of said bands together.

In testimony whereof I affix my signature.

FRANK CARTY.