J. G. BARNES.

SECTIONAL MOLD FOR FORMING CONCRETE WALLS, PIERS, COLUMNS, &c.

APPLICATION FILED JUNE 18, 1909.

946,315.

Patented Jan. 11, 1910.

Fig. 1.

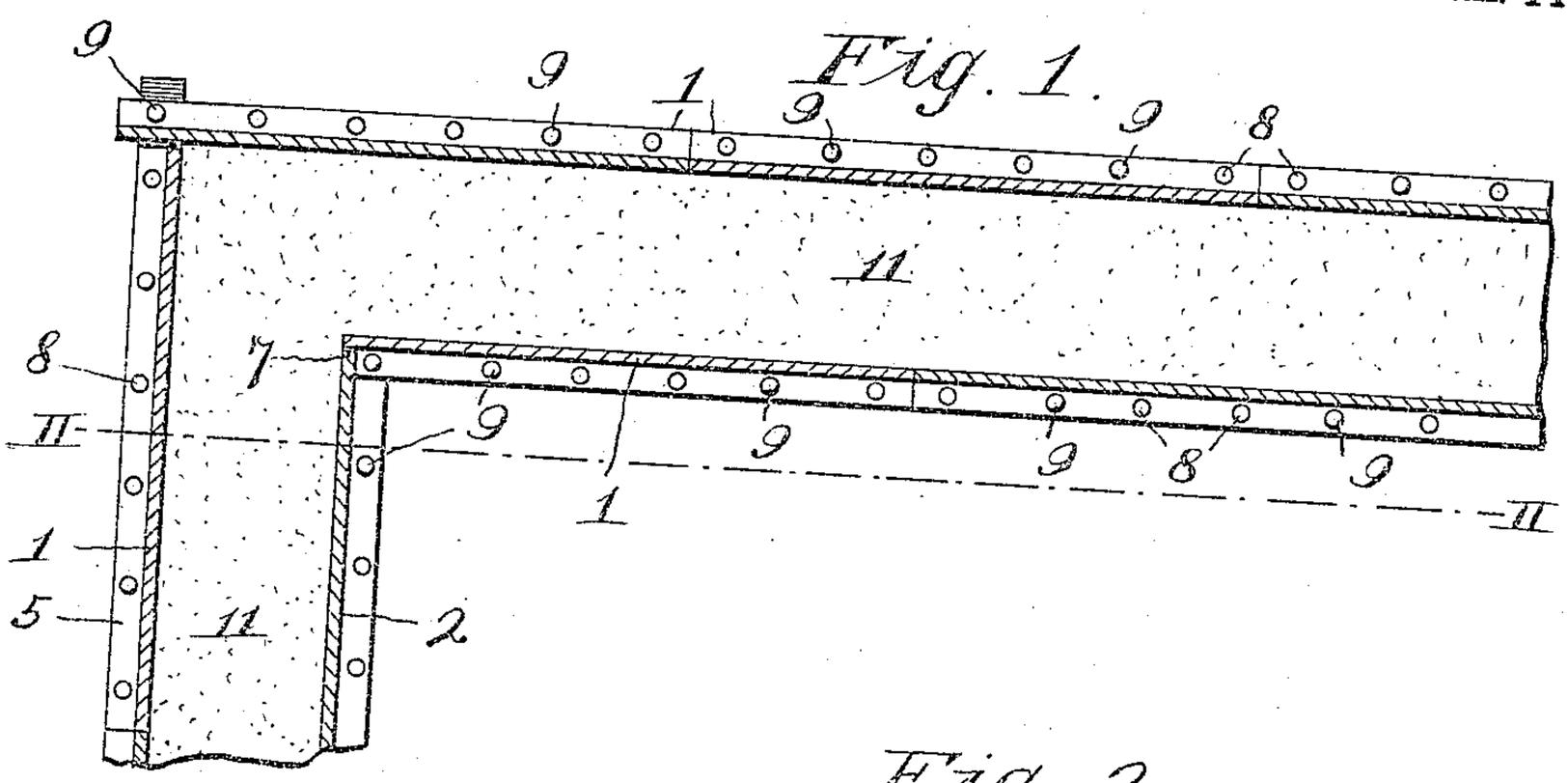


Fig. 2.

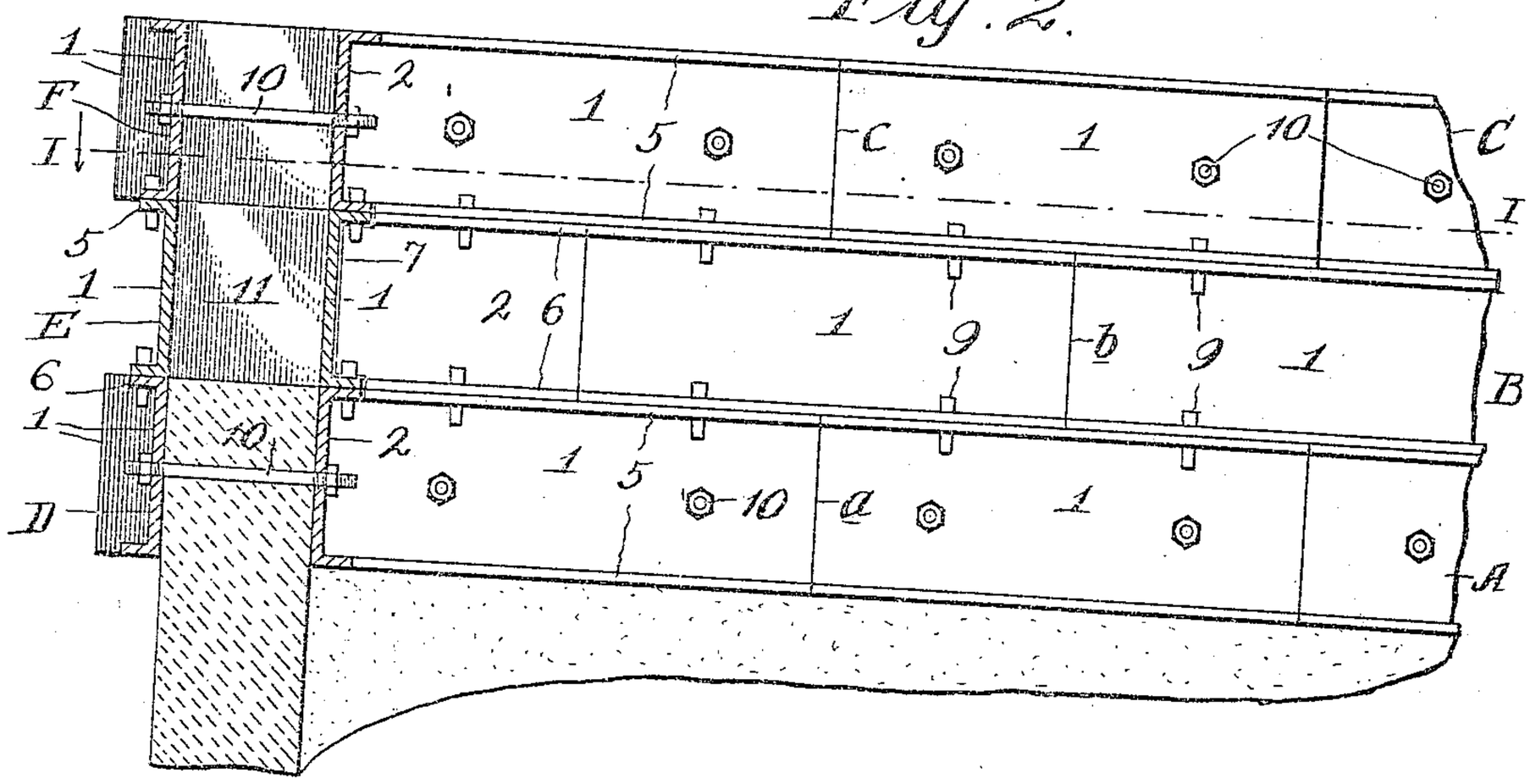


Fig. 3.

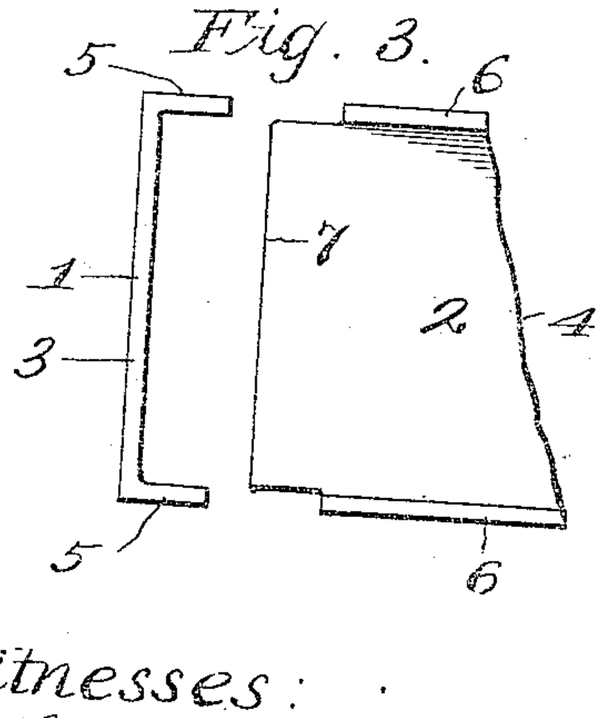
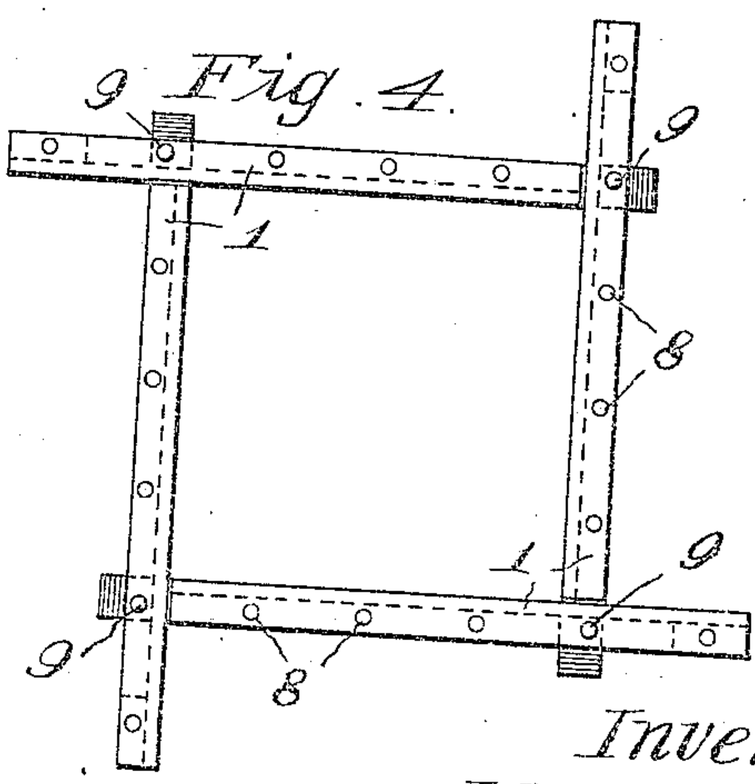


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SECTIONAL MOLD FOR FORMING CONCRETE WALLS, PIERS, COLUMNS, &c.

946,315. Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed June 18, 1909. Serial No. 502,951.

To all whom it may concern:

Be it known that I, JOHN G. BARNES, a citizen of the United States, residing at Leavenworth, in the county of Leavenworth and State of Kansas, have invented certain new and useful Improvements in Sectional Molds for Forming Concrete Walls, Piers, Columns, &c., of which the following is a specification.

My invention relates to improvements in molds for constructing concrete walls, piers, columns, etc., and the object of the invention is to provide a simple, inexpensive, and durable mold, comprising sections which may be readily assembled and reliably held in place during the molding operation.

A further object is to provide rigid supports for the mold-sections designed to be embedded in the concrete wall, so that the lowermost sections may be placed upon the uppermost sections and thus insure the continuous operation of the mold during the formation of said wall.

A further object is to provide a number of the mold-sections with integral means whereby tight joints may be formed at the corners of the mold.

Other objects of the invention will hereinafter appear, and in order that said invention may be fully understood, reference will now be made to the accompanying drawings, in which:

Figure 1 is a horizontal section of the mold on line I—I of Fig. 2. Fig. 2 is a vertical section on line II—II of Fig. 1. Fig. 3 is a detail of two mold-sections ready to be assembled for forming an inner corner of the mold. Fig. 4 shows a plan view of the mold arranged for the formation of a pier or column.

In carrying out the invention I employ a plurality of mold-sections 1 and 2, which consist of webs 3 and 4 and outturned flanges 5 and 6, respectively, integral with said webs. Each section 2 is provided at one end with a tongue 7, which extends beyond the adjacent ends of flanges 6, and is adapted to pass between flanges 5 and abut against the outer surface of web 3 of one of the adjacent sections 1. This arrangement insures a tight joint without the use of more or less expensive extraneous fastening devices, and one requiring but little time in its formation. Flanges 5 and 6 have rows of perforations 8 adapted to receive tapered coupling-pins 9 whereby the superposed sections are secured together.

10 designates a plurality of transverse supporting members arranged to engage oppositely-disposed sections when the same are placed apart to leave a space 11 for the introduction of concrete during the formation of a wall.

In practice the sections are arranged in tiers, as indicated by A, B, C, D, E, and F, Fig. 2, with the joints *a*, *b*, and *c* staggered as in laying bricks, and the superposed sections are secured together by the coupling-pins 9, which extend through the registering holes 8 of the flanges.

In forming an outer corner of the mold, the end sections in tiers A and C are arranged to lap the end section in tier E extending at right angles thereto, the end sections in tiers D and F are arranged to abut against the webs of the end sections in tiers A and C, and the end section in tier B is arranged to abut against the web of the adjacent section in tier E. By lapping the ends of the tiers, as above described, a tight and substantial corner is formed which is further secured by the coupling-pins 9.

In forming an inner corner of the mold, the end section in tier B is provided with a tongue 7 which abuts against the web of the adjacent section in tier E, while the webs of the end sections in tiers A and C are engaged by the tongues of the adjacent sections in tiers D and F.

In arranging the mold to form a pier or column, sections 2 are dispensed with and the corners of the mold are formed by lapping the ends of the sections in substantially the manner employed in forming the outer corner shown in Fig. 2.

Having thus described my invention, what I claim is:—

1. A mold for concrete structures, comprising in combination, a series of superposed sections arranged to form a concrete space therebetween, each section comprising a web portion and top and bottom flanges formed by bending said web portion outwardly, and the ends of said web portions formed beyond the ends of said outwardly turned flanges to fit between the flanges of a section disposed at right angles thereto, and means for pinning superposed abutting flanges.

2. A mold for concrete structures com-

prising, in combination, a series of superposed sections arranged in opposing sets to form a concrete space, each section at a corner comprising an intermediate web and top and bottom longitudinal outwardly turned flanges, and the ends of alternate web portions projecting beyond the ends of said longitudinal flanges and engaging between the longitudinal flanges of the next adjacent section to form a corner joint.

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

JOHN G. BARNES.

Witnesses:

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