

March 17, 1925.

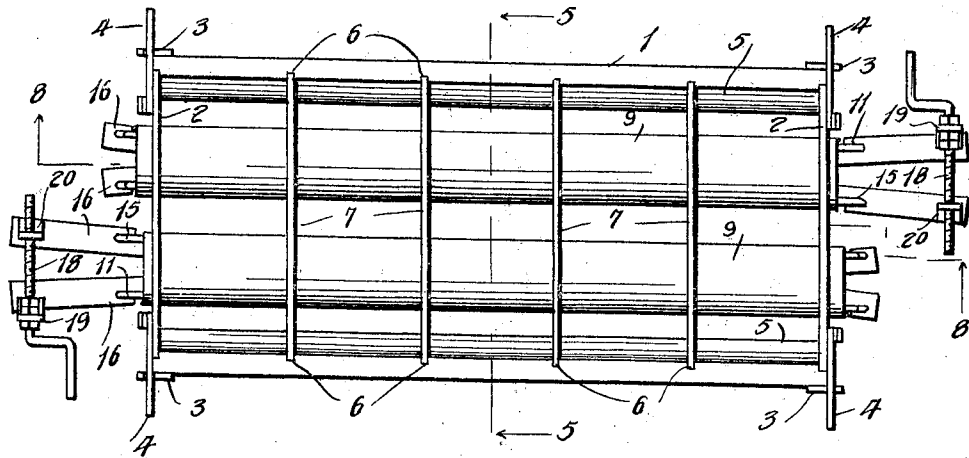
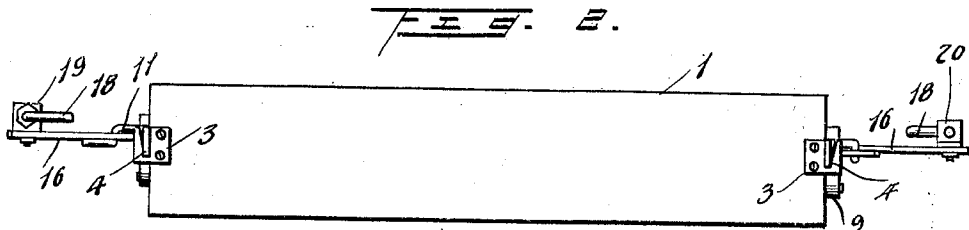
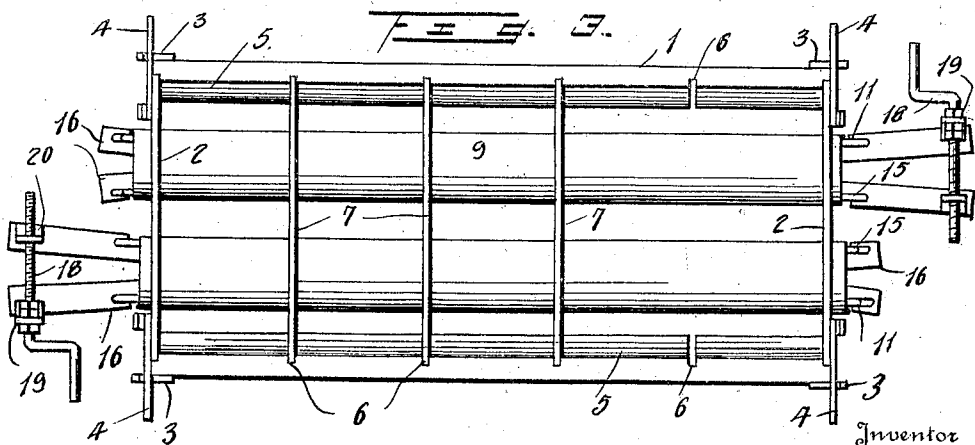
1,530,447

J. C. WEATHERS

CONCRETE BLOCK MOLD

Filed Feb. 7, 1924

3 Sheets-Sheet 1



J. C. Weathers.

By *A. B. Randolph Jr.*
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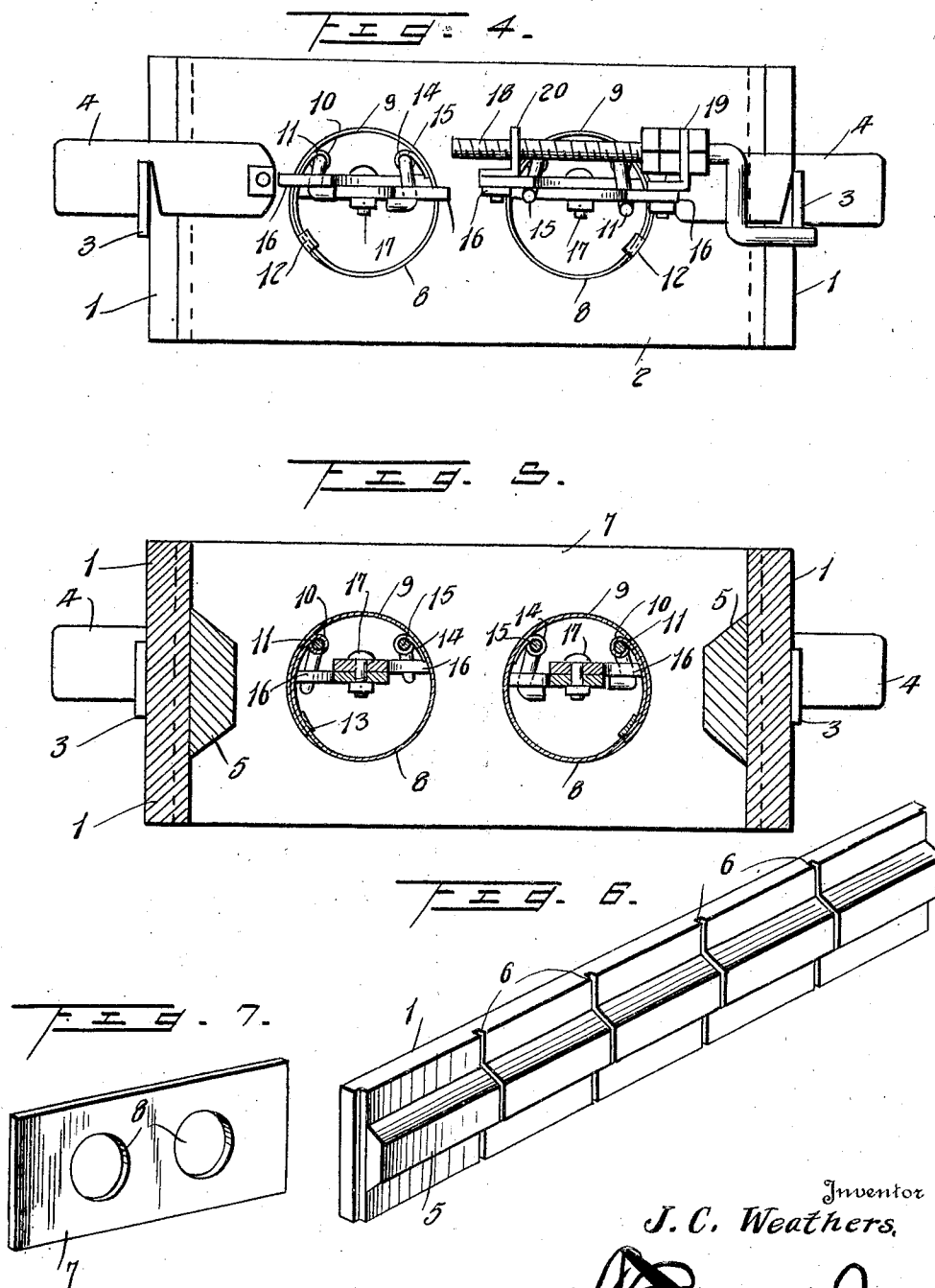
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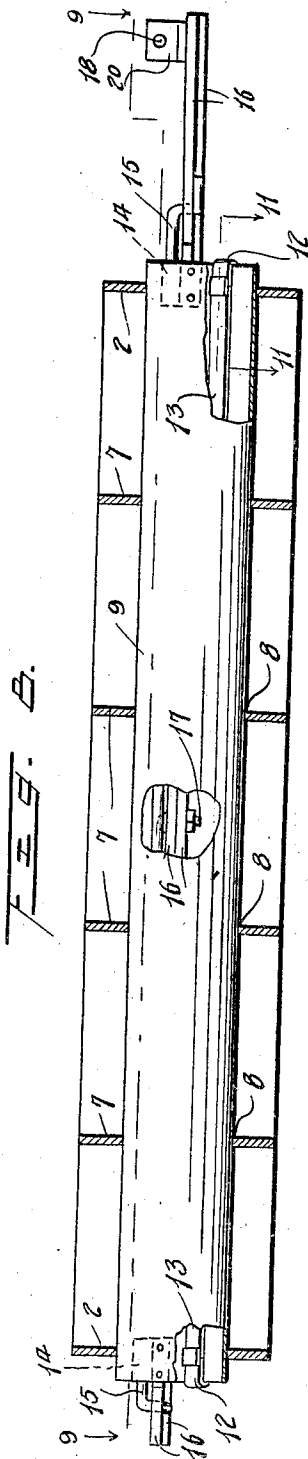
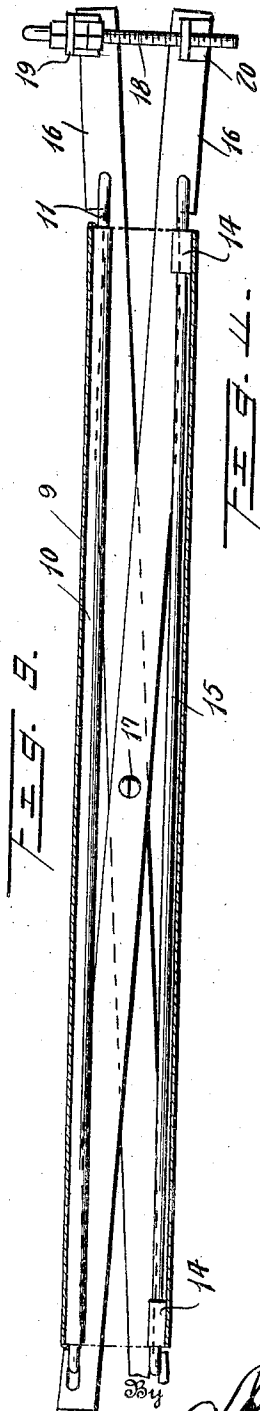
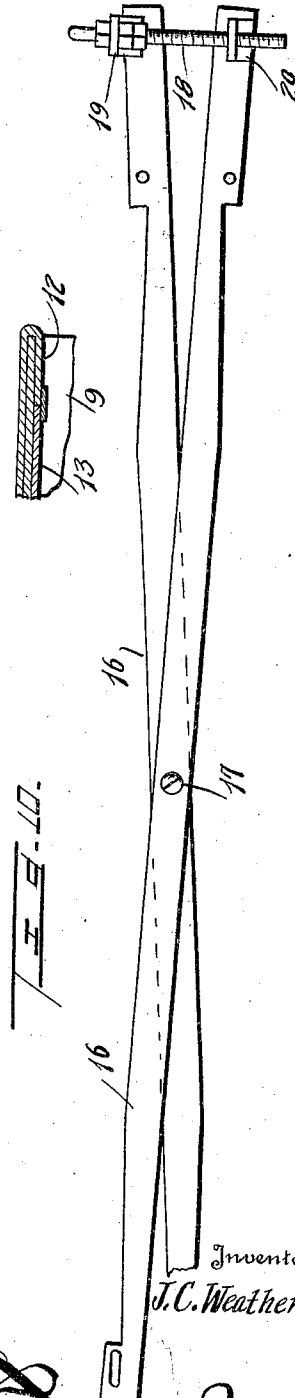
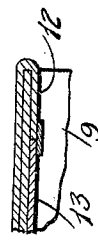
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3 Sheets-Sheet 3



Inventor
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UNITED STATES PATENT OFFICE.

JULIUS C. WEATHERS, OF SHELBY, NORTH CAROLINA.

CONCRETE-BLOCK MOLD.

Application filed February 7, 1924. Serial No. 691,229.

To all whom it may concern:

Be it known that I, JULIUS C. WEATHERS, a citizen of the United States, residing at Shelby, in the county of Cleveland and State of North Carolina, have invented certain new and useful Improvements in Concrete-Block Molds; 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.

The invention provides a mold for forming building units such as blocks, tiles and slabs from concrete or analogous self-setting plastic material, and which is adjustable and embodies interchangeable parts and which enables the ready removal of the blocks after the material has set to enable the safe handling thereof.

Other objects and advantages will be apparent and suggest themselves as the nature of the invention is understood.

While the drawings illustrate an embodiment of the invention it is to be understood that in adapting the same to meet different conditions and requirements, various changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit of the invention.

Referring to the accompanying drawings forming a part of the application:

Figure 1 is a top plan view of a mold embodying the invention;

Figure 2 is a side view thereof;

Figure 3 is a view similar to Figure 1 having one of the separators or partitions removed, whereby to form a block of increased length;

Figure 4 is an end view of the mold;

Figure 5 is an enlarged sectional view on the line 5—5 of Figure 1;

Figure 6 is a detail perspective view of a side of the mold;

Figure 7 is a detail perspective view of one of the separators or partitions;

Figure 8 is a vertical longitudinal section on the line 8—8 of Figure 3, looking in the direction of the arrows, parts of the core being broken away;

Figure 9 is a sectional view on the line 9—9 of Figure 8;

Figure 10 is a detail view of the core contractor and expander, and

Figure 11 is a detail sectional view on the line 11—11 of Figure 8.

Corresponding and like parts are referred

to in the following description and designated in the several views of the drawings by like reference characters.

The mold is preferably of rectangular form and comprises similar side pieces 1 and end pieces 2; the side pieces having plates 3 attached to opposite ends and projecting outwardly therefrom to be engaged by catches 4 pivoted to the end pieces 2, whereby to hold the side and end pieces when assembled. A strip 5 is attached to the inner side of the parts 1 and is disposed intermediate the top and bottom edges thereof, said strip constituting a rib, the edges of which are beveled. The rib 5 results in providing indentations in opposite ends of the block which receive the mortar or other bonding material when the blocks are positioned in a wall during the construction thereof. Grooves 6 are formed in the inner faces of the side pieces 1 and are adapted to receive the ends of separators or partitions 7. In the preferable construction, the grooves 6 are uniformly spaced thereby enabling the mold to form blocks of regular size. However, when a block of increased length is required, it is obvious that one or more of the separators 7 may be omitted, as indicated in Figure 3. The separators or partitions being alike, it follows that they are interchangeable and the same is true of the side and end pieces. The end pieces 2 and the separators 7 are provided with openings 8 in coincident position to receive cores 9, whereby the blocks when formed are hollow or are provided with enlarged openings, this being of advantage in a building unit of the nature stated. The mold illustrated includes two cores 9. Obviously, this is not essential as the number of cores may vary and will depend upon the size of the mold and the number of openings to be formed in the block. The cores and adjunctive parts being alike, a detailed description of one will suffice for a clear understanding thereof. The core 9 is of cylindrical form and is preferably constructed of sheet metal rolled into cylindrical form and having edge portions overlapped, as indicated most clearly in Figures 4 and 5. One edge portion of the sheet metal blank or strip comprising the core is formed into a roll 10 in which is fitted a rod 11 and the opposite edge portion is provided with extensions 12 which are bent inwardly about the end of the opposite overlapping end por-

tion, and these extensions 12 are connected by means of a strip 13 which passes through the core and is soldered or otherwise attached to the inner ends of the extensions 12, thereby forming a tie therefor and holding the overlapping edge portions of the sheet metal blank in close relation. The core is adapted to be contracted and expanded to facilitate the removal and to enable the same to be readily placed in position when assembling the mold. Clips 14 are attached to the inner side of the core a distance from the rolled edge 10 and receive a rod 15 similar to the rod 11, both rods 11 and 15 extending through the core and beyond the ends thereof.

The core is adapted to be contracted and expanded by means of an appliance embodying similar bars 16 which are pivotally connected intermediate their ends, as indicated at 17. The bars 16 are of a length to pass through the core and extend beyond the ends thereof. The projecting ends of the rods 11 and 15 are connected to the projecting ends of the bars 16, the rods having a loose connection with the bars 16 at one end to provide for a play incident to contraction and expansion of the core. The bars 16 have a pivotal movement and in consequence of the central position of the pivot fastening 17, both ends of the bars have a like movement with the result that the core is uniformly contracted and expanded throughout its length. An adjusting screw 18 disposed at one end of the pivoted bar 16 is connected to one of the bars by means of a swivel joint 19 and has screw thread connection 20 at its opposite end with the other bar, and in consequence of this arrangement, rotation of the screw 18 effects a pivotal movement of the bars 16 and a contraction or an expansion of the core according to the direction of rotation of the screw.

When the mold is assembled, the side and end pieces 1 and 2 are made secure by the fastening means 3 and 4, after which the separators or partitions 7 are placed in position and receive the cores 9 which are passed through the coinciding openings formed in the end pieces 2 and separators 7. The mold thus assembled is placed upon a surface which forms a bottom therefor and the concrete or other material is filled into the mold and tamped therein and is struck or leveled by passing a straight edge over the top of the mold. After the material has set to render it safe to handle the blocks, the cores are contracted by operating the screws 18 and when sufficiently contracted are with-

drawn from the mold by an endwise movement. The end pieces 2 are now released, thereby permitting removal of said ends and the side pieces, after which the separators or partitions 7 may be withdrawn. The construction is such as to admit of the mold being readily assembled, since the parts are not required to be placed in predetermined position, it being clear that the separators, as well as the end and side pieces, are interchangeable.

What is claimed is:

1. A core for a mold, the same consisting of sheet material formed into a cylinder, and means for contracting and expanding the core, the same consisting of two bars pivoted intermediate their ends, and means applied to an end of the bars to separate or draw the same together.
2. A core for a mold adapted to be contracted and expanded, two bars pivoted intermediate their ends and disposed within the core, means connecting opposite ends of the bars to end portions of the core, and means applied to an end of the bar to separate or draw the same together.
3. A core comprising sheet material bent into cylindrical form and having edge portions overlapped, a rod attached to the edge of the inner portion of the sheet comprising the core, a companion bar attached to the inner side of said sheet a distance from the first mentioned rod, bars pivoted intermediate their ends and connected at their outer ends to the outer ends of the respective rods, and means for pivotally adjusting the bars to effect a contraction or expansion of the core as required.
4. A core comprising a blank of sheet material formed into a cylinder and having edge portions overlapped, the outer edge portion having extensions at opposite ends which are bent inwardly to engage about the inner edge portion, and a tie strip connecting the folded extensions.
5. A core comprising a blank of sheet material formed into a cylinder and having edge portions overlapped, the outer edge portion having extensions at opposite ends which are bent inwardly to engage about the inner edge portion, a tie strip connecting the folded extensions, and means within the core to effect a contraction and an expansion thereof.

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

JULIUS C. WEATHERS.

Witnesses:

FRANK L. HOYLE,

BYNUM E. WEATHERS.