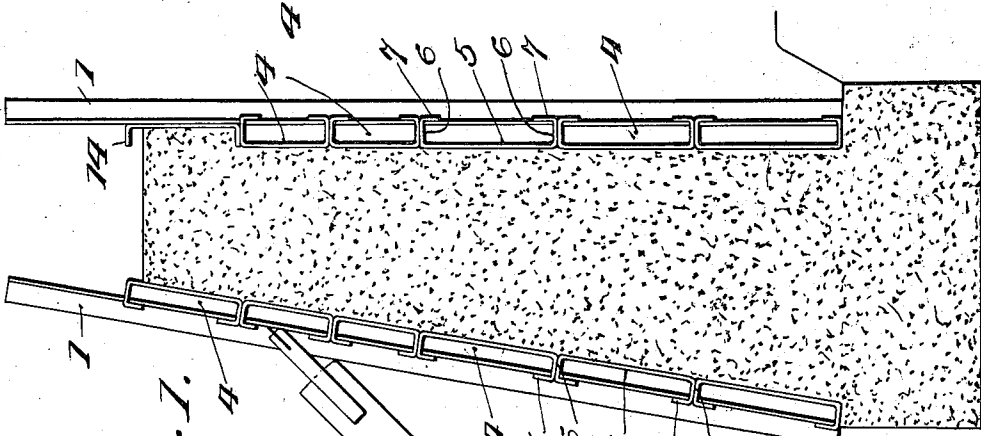
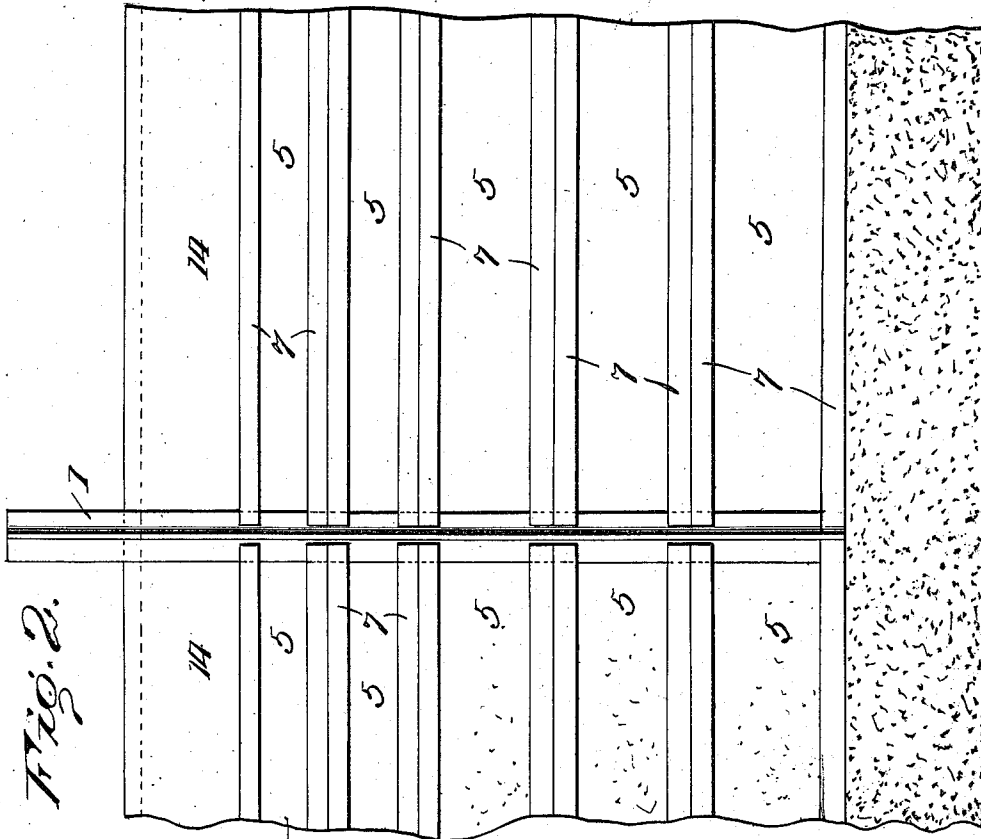


R. T. BAGBY.
FORM FOR CONCRETE WORK.
APPLICATION FILED FEB. 15, 1917.

1,235,542.

Patented Aug. 7, 1917.
3 SHEETS—SHEET 1.



Witness

Fig. 1.

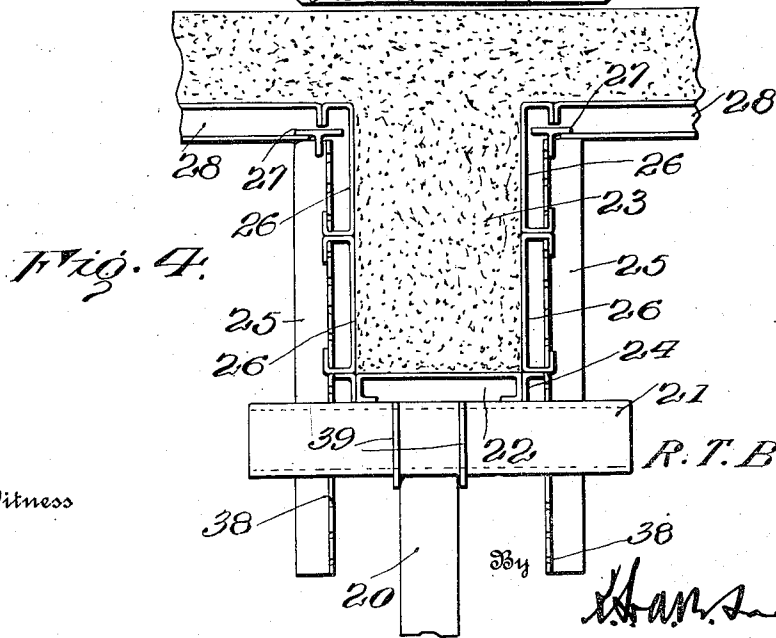
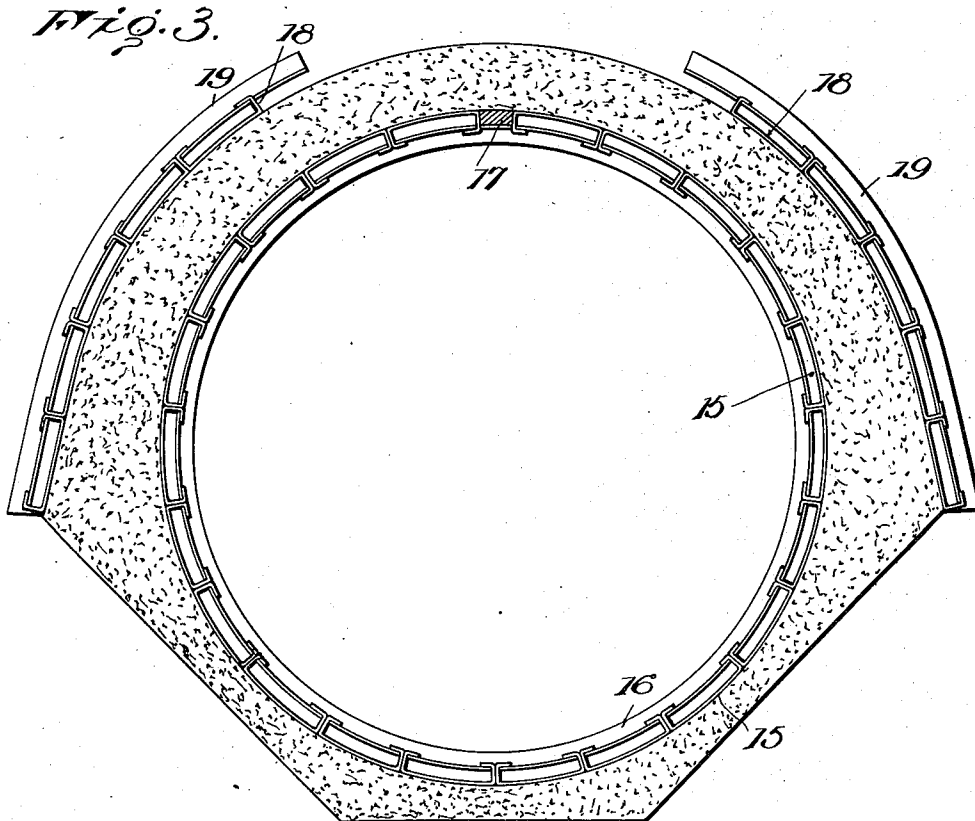
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Witness

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3 SHEETS—SHEET 3.

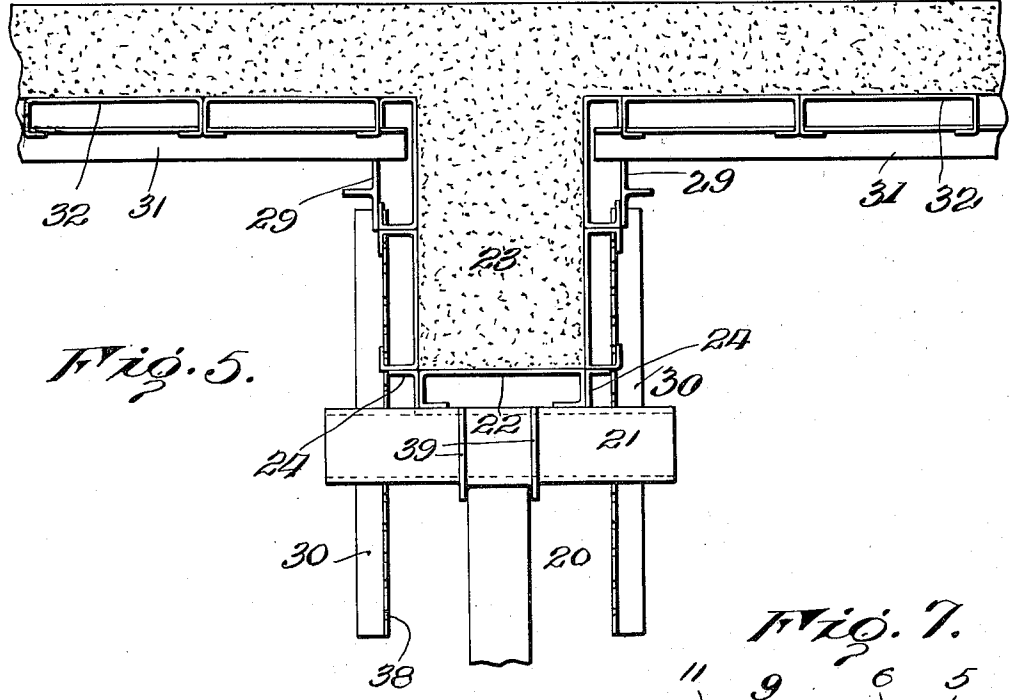


Fig. 5.

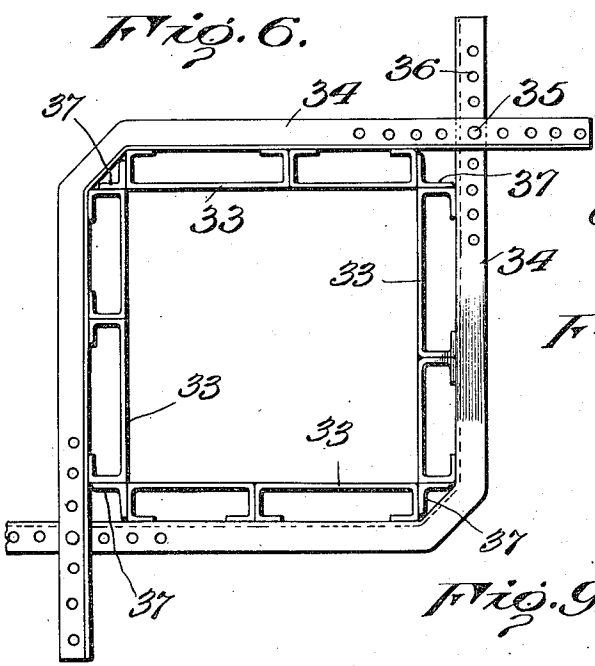


Fig. 6.

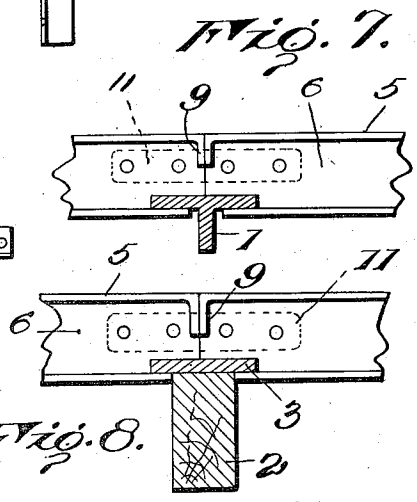


Fig. 7.

Fig. 8.

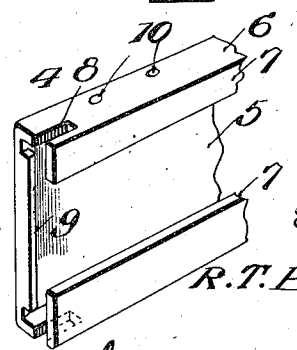


Fig. 9.

Witness

By

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UNITED STATES PATENT OFFICE.

ROBERT T. BAGBY, OF MASCOT, TENNESSEE.

FORM FOR CONCRETE WORK.

1,235,542.

Specification of Letters Patent.

Patented Aug. 7, 1917.

Application filed February 15, 1917. Serial No. 148,812.

To all whom it may concern:

Be it known that I, ROBERT T. BAGBY, a citizen of the United States, residing at Mascot, in the county of Knox and State of Tennessee, have invented certain new and useful Improvements in Forms for Concrete Work, of which the following is a specification.

This invention relates to forms for use in concrete work and seeks to provide a novel construction whereby a mold or form of any desired size or style may be readily produced as needed. One object of the invention is to provide an apparatus in which the component parts may be readily separated after the concrete has set so that the form may be used repeatedly and it is also the object of the invention to provide an apparatus of the stated characteristics which may be easily handled by one man so that the cost of labor will be minimized.

The invention is illustrated in the accompanying drawings and consists in certain novel features which will be hereinafter described and claimed.

In the drawings:

Figure 1 is a transverse section of a retaining wall constructed by the aid of my invention;

Fig. 2 is a front elevation of the same;

Fig. 3 is a transverse section showing the application of the invention to the construction of sewers, conduits, or similar formations;

Figs. 4 and 5 are views showing different applications of the invention to form girders of beams and floors;

Fig. 6 is a horizontal section showing the use of the invention in the building of columns;

Figs. 7 and 8 are enlarged detail views showing the joint between abutting form plates;

Fig. 9 is a detail perspective view of an end of a form plate.

In carrying out my invention, I employ a plurality of pressed steel plates constructed at their ends to engage standards or retaining ribs. The said standards or retaining ribs, indicated at 1, are preferably T-shaped in cross section and may be formed of T-iron, as indicated in Fig. 7, or may be constructed of a timber post 2 having a flexible metallic plate 3 secured to one edge, the longitudinal edges of said metallic plate projecting beyond the sides of the timber,

as shown in Fig. 8. The form plates 4 each have a channeled formation and consists of a central web or body 5 having flanges 6 upon their longitudinal edges with the extremities of said flanges turned inwardly, as shown at 7. In the ends of the flanges 6 are longitudinally extending notches or open-ended slots 8 which are adapted to engage the side flanges of the ribs when the form plates are assembled in use and inwardly projecting ribs 9 are formed upon the inner faces of the form plates at the ends thereof and between the flanges 6, as clearly shown in Figs. 7, 8 and 9. The form plates may be constructed with openings 10 in the flanges 6 to receive pins or similar fastenings whereby to retain links 11 in position, the said links, when held to the form plates by said pins, preventing longitudinal separation of the plates.

In building a retaining wall by the use of my invention, the ribs or standards 1 are set up along the line of the proposed wall and the standard at one side of the wall is inclined to correspond to the inclination of the outer face of the wall, as will be readily understood. The rib may be secured in this inclined position by any convenient or preferred means and I have shown a brace 12 having its upper end connected with the inclined rib and its lower end held by a stake 13 which may be of any ordinary construction. The brace 12, of course, will rest upon the ground so that additional strength will be imparted to the device and the strain of holding the rib in position will not be thrown entirely upon the stake 13. The form plates may be of various sizes, as indicated in Figs. 1 and 2, and are placed in position so that their flanged sides will be between the ribs 1 and the intended wall, the unflanged sides of the plates thereby presenting a smooth surface against which the concrete may be poured and tamped so that after the concrete has set and the form removed a wall having smooth surfaces will result. In assembling the form plates with the ribs 1, the ends of the plates are brought against the sides of the ribs so that the notches 8 will engage over the side flanges of the ribs, the projecting portions of the lips 7 thereby engaging against the outer faces of said ribs while the inner walls of the slots or notches 8 will fit against the inner faces of the ribs, as clearly shown in Fig.

7. The ribs 9 of adjacent plates will abut and will thereby constitute stops to prevent rocking of the plates relative to each other and the plates are then connected, so as to be held against longitudinal separation, by fitting the links 11 between the lips 7 and the main webs 5 of the plates and dropping holding pins or bolts there-through. The flanges 6 should be formed at a right angle to the webs of the form plates so that each plate will form a firm support for the plate superposed upon it. In order to produce an overhanging finish to the wall, a channel plate 14 without the elements 7 and 9 may be employed at the top of the wall, said plate being reversed relative to the plates below it so that its flanges will project toward the wall and a cornice having a projection equal to the depth of the plate will be formed.

In building a sewer by the use of my invention, the form plates, shown at 15, are engaged with a circular rib 16 so as to surround the said rib and the concrete is poured in around the form plates and tamped, as will be readily understood. A key 17 of any desired material will be inserted between the uppermost form plates and will serve to force the plates around the rib into intimate contact with each other and, consequently, will cause them to present a smooth continuous surface against which the concrete may set. After the concrete has set, if this key 17 be withdrawn, the form will be loosened so that it may be readily removed from the formed sewer. In forming culverts, the same process will be followed while if it be desired to impart an arch shape to the upper surface of the wall of the sewer or culvert the form plates 18 are fitted to the inner side of the ribs 19, the concrete being forced down under the form plates, as will be readily understood. It will, of course, be understood that the ribs 16 and 19 are of bendable material so that they may be readily given the desired form and will retain said form until they are removed from the completed work.

In utilizing my improved form for the construction of floors and beams, I employ shoring 20 which will be built up to the desired height and at its top will be provided with a bolster 21 upon which a form plate 22 may directly rest, the said form plate 22 being of the proper dimensions to give the desired shape to the lower side or edge of the beam 23. At the sides of the form plate 22, I provide angle irons 24 which will extend longitudinally of the beam 23 and be supported by the bolsters 21. Near their ends, the bolsters engage the ribs 25 which are also engaged by the ends of the form plates 26 by which the sides of the beam 23 are shaped. Extending longitudinally of the beam and supported by the upper ends of

the ribs 25 are ribs 27 having the stems of their T-shapes resting in the notches in the upper ends of said ribs 25 and their heads arranged to engage the ends of the form plates 28 arranged horizontally and extending outwardly from the upper ends of the uppermost form plates 26. The concrete for forming the floor will be deposited upon the form plates 28 and the uppermost flanges of the upper form plates 26, and some of the concrete will pass down between the form plates 26 so as to develop the beam 23.

The arrangement just described is illustrated in Fig. 4 as will have been readily noted. The arrangement shown in Fig. 5 differs from the just described arrangement in providing a rib 29 between the upper end of the side rib 30 and the form plates which support the concrete for the floor. The said ribs 29 are turned so that their stems project away from the beam and their uppermost edges will support ribs 31 extending under the form plates 32 upon which the concrete for the floor is placed. The ends of the form plates 32 are engaged with the ribs 31 in the manner heretofore described.

The ribs 25 or 30 will be provided with notches 38 in the edges of their flanges to receive longitudinal flanges on the bolsters 21, said bolsters being held in engagement with the ribs by clamps 39 which fit tightly around the bolsters, it being understood that the bolsters are arranged in pairs with the members of a pair disposed at opposite sides of a rib.

In forming a column by the use of my invention, the form plates 33 are placed end to end vertically and clamping bars 34 are placed around the form plates and held together by pins 35 inserted through registering openings 36 in the bars, angle iron fillers 37 being placed against the outermost flanges of the form plates and within the angles defined by the clamping bars so that the plates will be held against movement in either direction.

The use and many advantages of my improved device are thought to be evident from the foregoing description, taken in connection with the accompanying drawings.

Having thus described the invention, what is claimed as new is:

1. An apparatus for the purpose set forth comprising retaining standards, and form plates provided on one side along both longitudinal edges with inwardly projecting flanges whereby the plates may be superposed, said flanges being constructed at their ends to engage around the retaining standards whereby the ends of the plates may meet in front of the standards.

2. An apparatus for the purpose set forth comprising a rib T-shaped in cross section, and form plates provided on one side along both longitudinal edges with inwardly pro-

jecting flanges whereby the plates may be superposed, said flanges being constructed at their ends to engage around the flanges of the T-shaped rib and meet in front of the rib with the outer surfaces of the form plates flush.

3. In an apparatus for the purpose set forth, the combination of a rib T-shaped in cross section, and form plates provided with longitudinal flanges having notches in their ends and having longitudinal lips at their inner edges, the said flanges engaging the side edges of the T-shaped rib with the said lips bearing against the inner face of the said rib.

4. A form plate for concrete work consisting of a web having inwardly projecting flanges extending along both side edges and having inwardly extending lips along the free edges of said flanges, the webs being

further provided at their ends with inwardly extending ribs of less width than the flanges along the side edges of the web.

5. In an apparatus for the purpose set forth, the combination of a rib T-shaped in cross section, form plates provided with longitudinal flanges having notches in their ends and having longitudinal lips at their inner edges, the said notches engaging the side edges of the T-shaped rib with the said lips bearing against the inner face of the said rib, links bridging the abutting ends of the plates, and means for holding said links to said plates.

In testimony whereof I affix my signature.

ROBERT T. BAGBY. [L. s.]

Witnesses:

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J. WARREN GILBERT.