Dec. 1, 1925. 1,563,580

M. D. MAY

COLLAPSIBLE CORE

Filed May 24, 1924 2 Sheets-Sheet 1

Fig. 1.

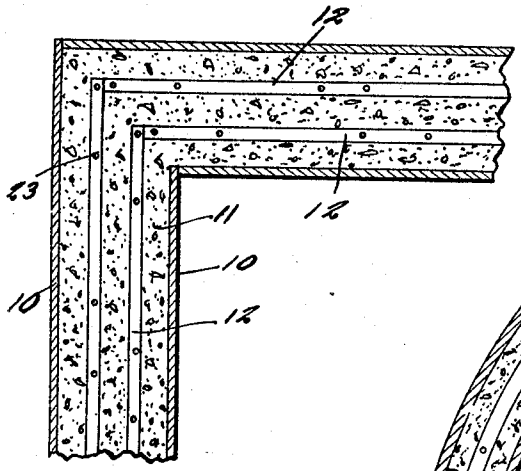


Fig. 2.

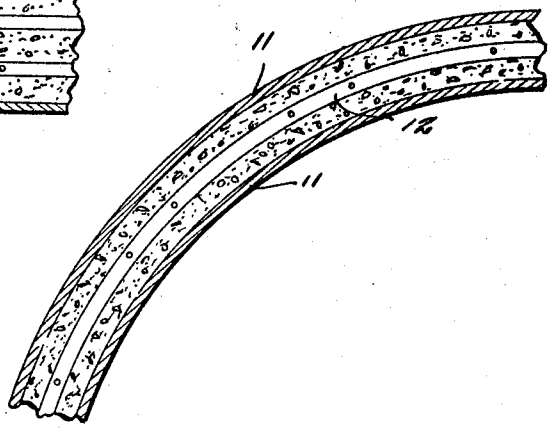


Fig. 3.

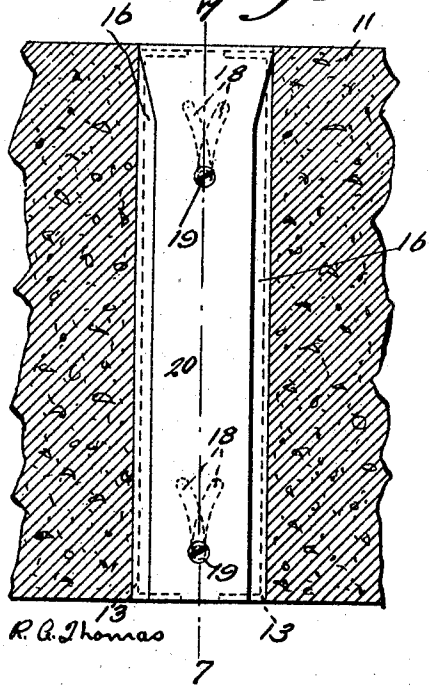
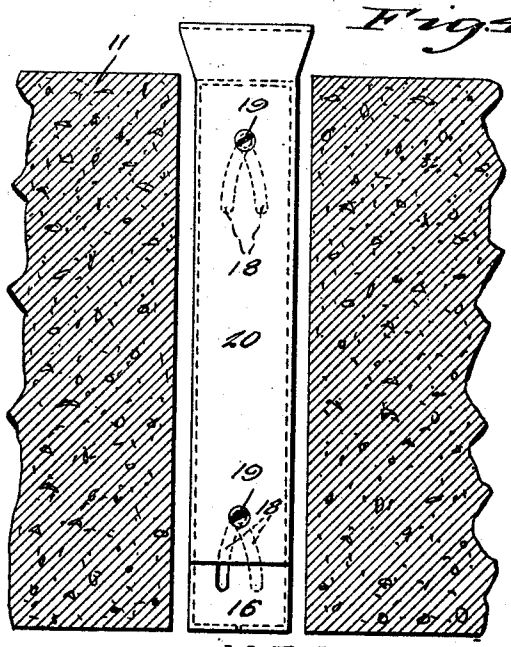


Fig. 4.



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WITNESS:

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Fig. 5.

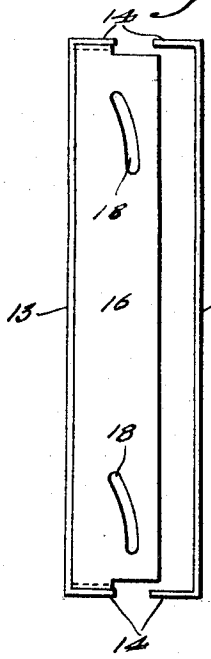


Fig. 6.

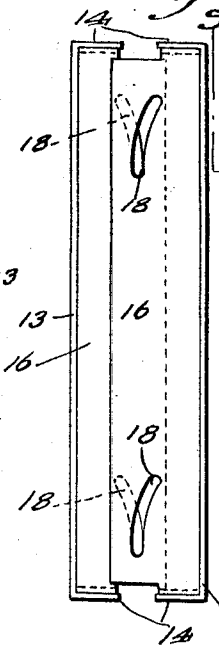


Fig. 7.

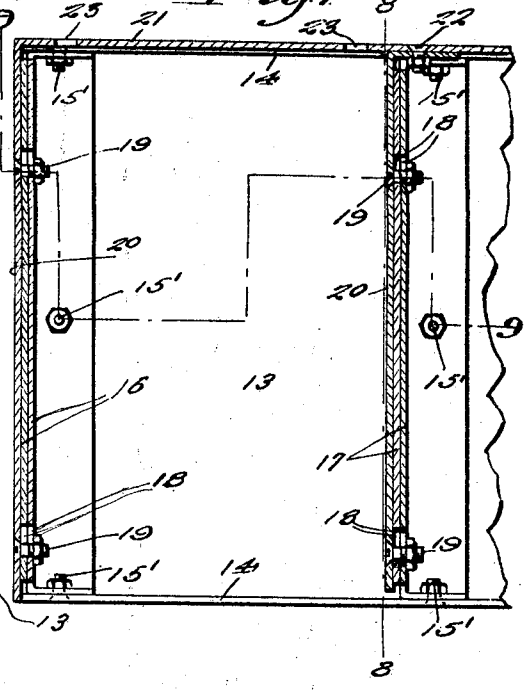


Fig. 8.

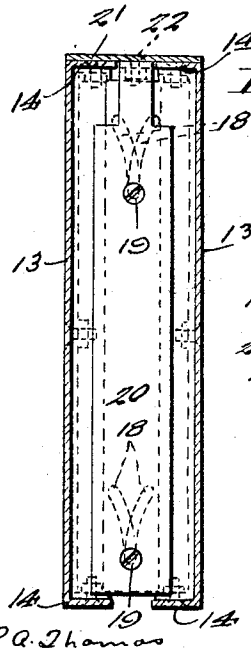
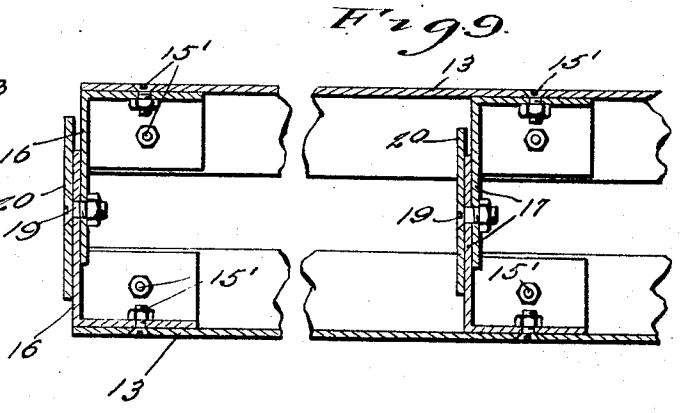


Fig. 9.



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WITNESS:

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Patented Dec. 1, 1925. 1,563,580

UNITED STATES PATENT OFFICE.

MARTIN D. MAY, OF MONROE, MICHIGAN.

COLLAPSIBLE CORE.

Application filed May 24, 1924. Serial No. 715,683.

To all whom it may concern:

Be it known that I, MARTIN D. MAY, a citizen of the United States, residing at Monroe, in the county of Monroe and State of Michigan, have invented new and useful Improvements in Collapsible Cores, of which the following is a specification.

This invention relates to improvements in moulds especially adapted for concrete construction and has especial reference to mould cores, an object being to provide a collapsible core for use in forming air spaces in concrete wall construction and the like.

Another object of the invention is the provision of a collapsible core which may be arranged within a mould in extended position for the formation of a hollow wall and easily and quickly collapsed and removed after the wall material has set.

Another object of the invention is the provision of a collapsible core which is simple and durable in construction and which is relatively light so that it may be easily handled.

With the above and other objects in view, the invention further includes the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the drawings:—

Figure 1 is a plan view showing a portion of a mould with the corner of a concrete wall and the collapsible cores in place.

Figure 2 is a similar view showing the cores differently arranged.

Figure 3 is an enlarged fragmentary transverse sectional view showing one of the cores in extended position.

Figure 4 is a similar view showing the core collapsed.

Figure 5 is a fragmentary sectional view of the core with one of the draw plates removed.

Figure 6 is a similar view with the draw plates shown in overlapping position.

Figure 7 is a fragmentary sectional view on the line 7—7 of Figure 3.

Figure 8 is a section on the line 8—8 of Figure 7.

Figure 9 is a fragmentary section taken substantially on the line 9—9 of Figure 7.

Referring to the drawings in detail wherein like characters of reference denote corresponding parts, the reference character 10 indicates the side walls of a mould which may be of any suitable construction or shape and which is shown merely for the purpose of illustrating the use of the invention. The mould shown is for use in the formation of a hollow concrete wall 11 and for this purpose cores 12 are placed within the mould and the concrete poured around said cores, the latter being afterward removed so as to provide air spaces. In Figure 1 of the drawings the cores 12 are arranged to form right angular or continuous air spaces, while in Figure 2 the said cores are arranged so as to provide a curved wall which may form a part of a circular or cylindrical structure.

The cores 12 which constitute the present invention are formed of metal and include spaced side walls 13 which may be of any suitable length and which are provided along their opposite longitudinal edges with inwardly extending right angular flanges 14.

Secured to the side walls 13 as shown at 15, are angle plates. These plates extend transversely of the plates 13 and are arranged in overlapping relation, the plates indicated at 16 providing end plates for the core, while the plates indicated at 17 provide intermediate plates and are spaced along the side walls 13 of the core at suitable intervals.

The plates 16 and 17 are provided with relatively inclined slots 18 which are adapted to register and to receive pins 19, the latter providing what may be termed draw pins in that they are capable of movement along the slots 18 to draw the plates 13 relatively inward, or to move them apart and collapse or extend the mould, fastening elements 15′ securing the other plates with the ones already fastened.

The pins 19 are carried by draw plates 20 which contact the overlapping plates 16. These draw plates 20 are carried by a cover plate 21, the draw plates which are connected to the overlapping plates 16 being located at each end of the cover plate 21 while the draw plates 20 which are connected to the intermediate overlapping plates 17 are secured to the cover plate 21 as shown at 22. The cover plate 21 thus in addition to providing a cover for the core acts to connect the plates 20 and to provide means whereby the said plates may be moved to move the plates 16 and 17 relatively. This causes a relative movement of the side plates 13 so as to collapse or extend the mould, as will be readily understood.

The cover plate 21 is preferably provided with spaced openings 23 for the insertion of hooks or rods (not shown), whereby the cover plate may be conveniently raised in collapsing the mould.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is herein reserved to make such changes as properly fall within the scope of the oppended claim.

Having described the invention what is claimed is:—

A collapsible mould core of the character described comprising a pair of side plates having their upper and lower edges bent inwardly, a cover plate having its intermediate portion lying flush with the upper inwardly bent portions of the side plate and its end portions extending downwardly in spaced parallel relation and engaging the side edges of the side plate, a plurality of substantially L-shaped end and intermediate plates secured to the inner and opposite sides of the side plate and having their free end portions slotted and registering in overlapping relation, auxiliary draw plates lying flush with the overlapping portion of the intermediate and end plates, and draw pins received in the end portions of the cover plates and auxiliary draw plates and the slotted portions of the end and intermediate plates respectively.

In testimony whereof I affix my signature.

MARTIN D. MAY.