C. BENNETT & A. & J. E. SHARP.

COLLAPSIBLE CORE.

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1,002,119.

Patented Aug. 29, 1911.

Fig. 1.

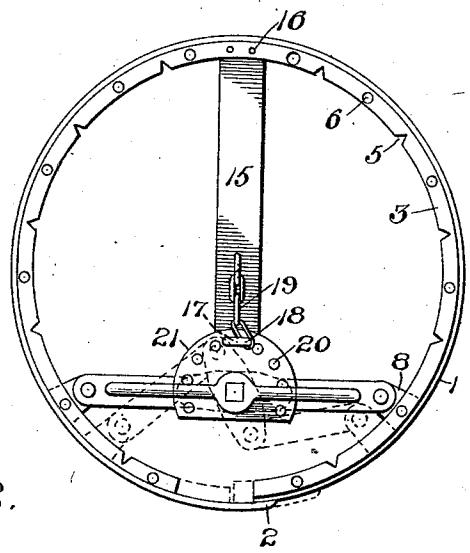


Fig. 2.

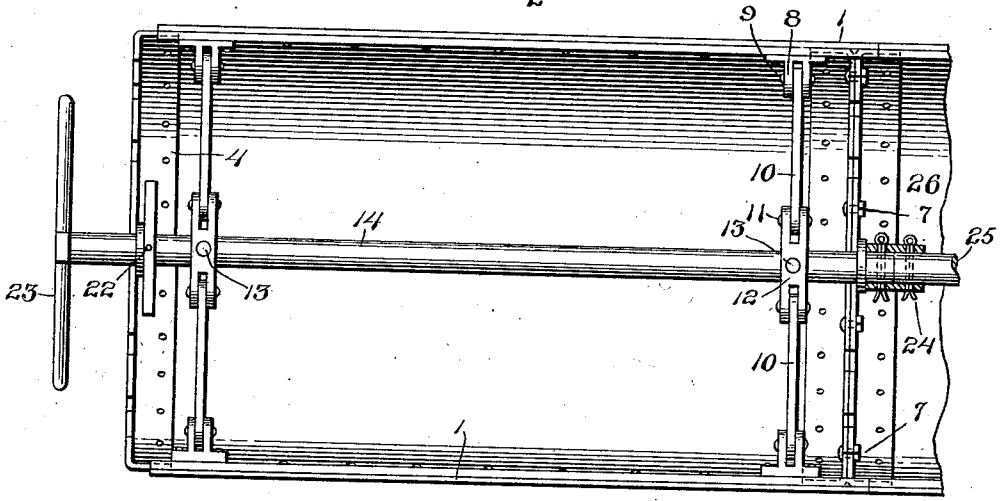
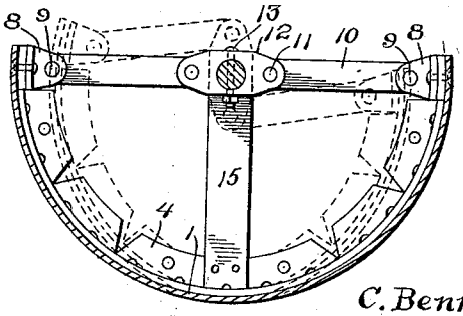


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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COLLAPSIBLE CORE.

1,002,119. Specification of Letters Patent. Patented Aug. 29, 1911.

Application filed October 12, 1910. Serial No. 586,771.

To all whom it may concern:

Be it known that we, CLARK BENNETT, ANDREW SHARP, and JOHN E. SHARP, citizens of the United States of America, residing at Munhall, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Collapsible Cores, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to collapsible cores or inner molds especially designed to facilitate the forming of arches, curved structures and cylindrical forms made of plastic material, as concrete.

The primary object of this invention is to provide a collapsible core that can be easily and quickly adjusted and supported in position for molding purposes.

Another object of this invention is to provide a core or form that is strong and durable and capable of withstanding considerable external pressure.

A still further object of the invention is to provide a cylindrical or semi-cylindrical form that can be used in a horizontal or vertical position in connection with various kinds of concrete construction, the core being particularly applicable to the construction of sewers, gutters and cylindrical hollow columns.

With these and such other objects in view as may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing forming a part of this specification, wherein there are illustrated the preferred embodiments of the invention, but it is to be understood that the structural elements thereof are susceptible to such changes as fall within the scope of the appended claims.

In the drawing:—Figure 1 is an end view of a cylindrical collapsible core, showing the same in a retracted position in dotted lines, Fig. 2 is a plan of a semi-cylindrical core, showing the same connected to another section or core, and Fig. 3 is a cross sectional view of the same, showing in dotted lines the core in a retracted position.

A collapsible core in accordance with this invention comprises a cylindrical metallic shell 1 having the longitudinal edges thereof overlapped, as at 2 whereby the shell can be retracted or expanded. The inner walls of the shell 1 adjacent to the ends thereof are provided with circumferentially arranged angle bars 3, these bars being riveted or otherwise connected to the shell 1, as at 4. The bars 3 are notched, as at 5 and intermediate the notches are provided with openings 6, the notches allowing the bars to be retracted and the openings 6 accommodating bolts 7 or other fastening means for coupling two of the cores in longitudinal alinement. It is preferable to position one of the bars at a point removed from the end of the shell 1, whereby said shell can overlap or extend onto the bar of another core, as best shown in Fig. 2, the bar at the opposite end protruding from the shell to receive the shell of another core.

The shell 1 adjacent to the ends thereof and in proximity to the longitudinal edges is provided with oppositely disposed bifurcated bearings 8 and pivotally connected to these bearings, as at 9 are links 10, said links being pivotally connected, as at 11 to a cross-head 12 keyed or otherwise secured, as at 13 to a longitudinal shaft 14. The shaft 14 is journaled in hangers 15, riveted or otherwise secured, as at 16 to the bars 3 intermediate the ends thereof. The hangers 15 are provided with openings 17 to receive locking pins 18 connected to the hangers 15 by chains 19 or other flexible connections. The pins 18 extend through openings 20 provided therefor in segment-shaped members 21 keyed or otherwise connected, as at 22 to the shaft 14. One end of the shaft is provided with a detachable handle bar 23 and the opposite end thereof can be coupled, as at 24 to the shaft 25 of an adjoining core 26.

In Figs. 2 and 3 of the drawing we have illustrated a semi-cylindrical core which is constructed upon the same principle as the cylindrical core, and the semi-cylindrical core can be used for the formation of gutters, troughs, arches and various other concrete constructions.

The collapsible core is made of strong and durable metal throughout and can be made of various sizes and shapes.

What we claim, is:

1. A collapsible core comprising a yieldable shell, notched bars secured to the inner walls of said shell, hangers carried by said shell, a shaft journaled in said hangers,

cross-heads carried by said shaft, links pivotally connected to said cross-heads and to the inner walls of said shell, and means adapted to lock said shaft in a fixed position relative to said hangers, said means including segment-shaped members, and pins adapted to extend through said members into said hangers.

2. A collapsible core comprising an adjustable shell, shaft hangers carried by said shell, a shaft journaled in said hangers, cross heads carried by said shaft, links pivotally connected to said cross heads and to the inner face of said shell, said hangers provided with openings, segment-shaped members secured to the shaft and provided with a segment-shaped row of openings, and means extending through one of the openings in said rows and through the openings in the hangers for locking the shaft from movement.

In testimony whereof we affix our signatures in the presence of two witnesses.

CLARK BENNETT.
ANDREW SHARP.
JOHN E. SHARP.

Witnesses:
KARL H. BUTLER,
JOHN L. STEPHANY.