No. 809,199. PATENTED JAN. 2, 1906.

W. H. LUCAS.

MOLD.

APPLICATION FILED AUG. 31, 1905.

Fig. 1.

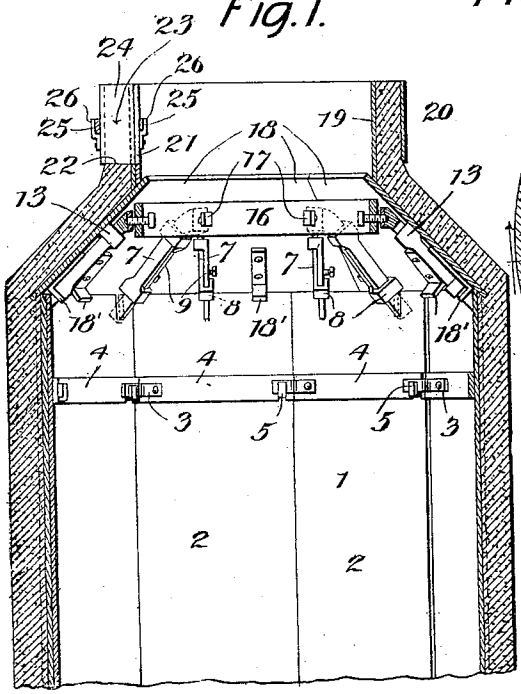


Fig. 2.

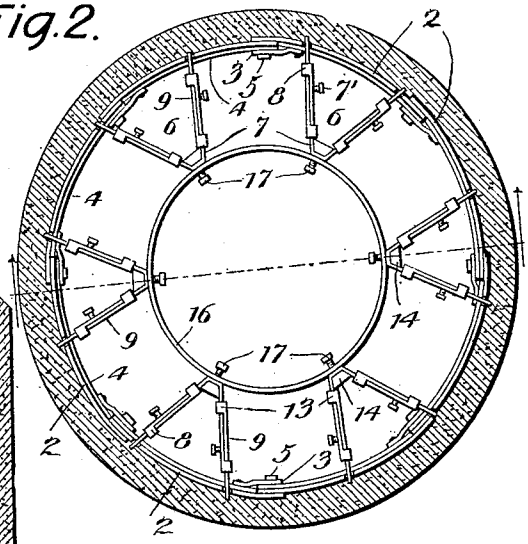


Fig. 3.

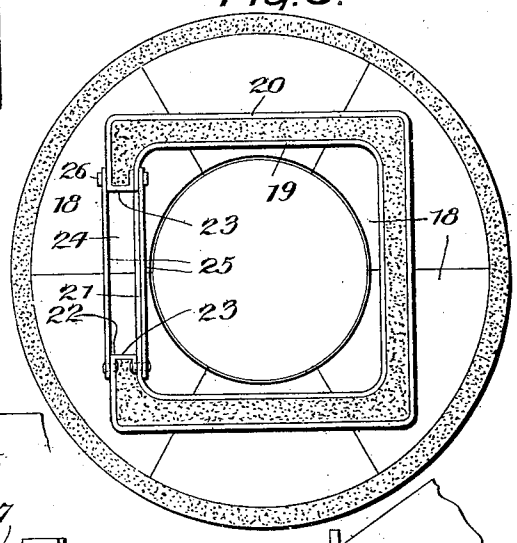


Fig. 4.

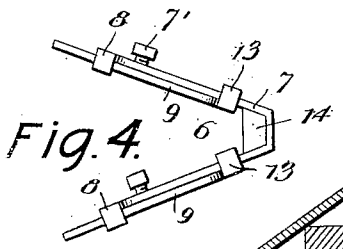


Fig. 6.

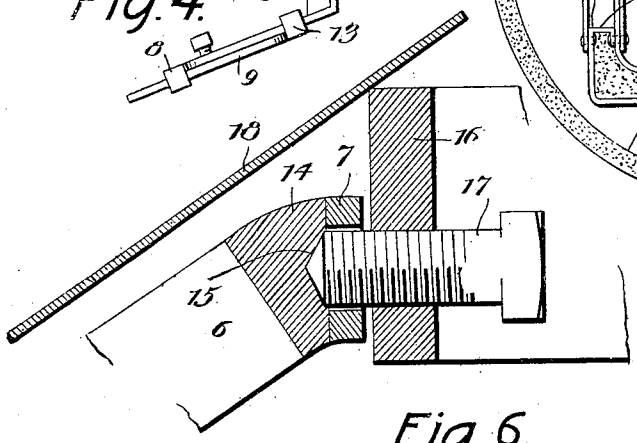
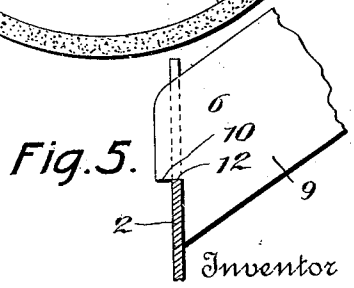


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE

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MOLD.

No. 809,199. Specification of Letters Patent. Patented Jan. 2, 1906.

Application filed August 31, 1905. Serial No. 276,588.

To all whom it may concern:

Be it known that I, WILLIAM H. LUCAS, a citizen of the United States, residing at Newark, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Molds; and I do 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.

This invention relates to improvements in molds for constructing manholes, catch-basins, cesspools, and the like.

The object of the invention is to provide a mold of this character formed or made up of separable parts or sections, whereby the same may be readily taken down or apart after the molding operation is completed and the molding material hardened.

A further object is to provide a simple and improved means for adjustably bracing and supporting the sections forming the mold.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a vertical sectional view of a mold constructed in accordance with the invention, showing the manner of using the same in constructing a manhole. Fig. 2 is a top plan view of the same. Fig. 3 is a similar view showing the neck-forming portion and the top plates of the mold. Fig. 4 is an enlarged plan view of one of the adjustable top and neck supporting braces. Fig. 5 is a fragmentary sectional view of the upper end of one of the side pieces of the mold, showing the manner in which the outer ends of the brace-bars are formed and engaged with the sides of the mold; and Fig. 6 is a similar view of the upper end of one of the brace-bars, showing the manner in which the same are adjustably engaged with the top-supporting ring of the mold.

Referring more particularly to the drawings, 1 denotes the body portion of the mold, which preferably consists of a series of segmental plates 2, the edges of which overlap and are connected together by means of hooks 3, pivotally connected to reinforcing-bands 4, arranged on the inner side of the sections, said hooks being adapted to engage keepers 5 on the reinforcing-bands of the next adjacent section. The segmental plates or sections 2 when thus arranged form a cylindrical mold-body. While I have described the mold as being cylindrical in shape, it is obvious that the same may be constructed in any desired shape by providing sections or plates of various forms.

On the upper edges of the sides of the mold-body is supported the lower ends of inclined adjustable supporting-braces 6, consisting of an upper V-shaped bar 7, on the lower ends of which are formed guide-loops 8, through which are adapted to slide lower bars 9. The lower ends of said bars have formed therein notches 10, said notched ends of the lower bars being adapted to engage recesses 12, formed in the upper ends of the sections or plates 2 of the mold. The upper ends of the bars 9 have formed thereon guide-loops 13, which engage the upper V-shaped bars 7, as shown. Set-screws 7′ are arranged in the bars 7 and are adapted to be engaged with the bars 9 to hold said bars in their adjusted positions.

In the angle of the V-shaped upper bars 7 of the braces is arranged a reinforcing-block 14, and in said angularly-bent ends of the bars and in the blocks 14 is formed a socket or recess 15. Connected to the upper end of the braces 6 is a supporting-ring 16, said ring being connected to the braces by means of set-screws 17, which are screwed through threaded apertures in the ring 16, the ends of said screws being adapted to engage the recesses or sockets 15 in the bars 7 and blocks 14, thereby connecting said rings and braces, and by adjusting the set-screw 17 in the ring a rigid connection between the same and the braces 6 may always be maintained.

On the braces 6 and the ring 16 are arranged top plates or sections 18 of the mold, said plates or sections tapering from their lower to their upper ends to form a conical-shaped top. On the inner sides of the plates 18, adjacent to their lower ends, are secured lugs 18′, which engage the upper edges of the side sections and hold the top plates in place. In order to form the neck of the concrete structure, I provide inner and outer casings 19 and 20, which may be of any desired shape, but which are here shown as rectangular. The inner casing 19 is enough smaller than the outer casing 20 to provide a space of sufficient width to form a neck of suitable thickness. The inner casing 19 is adapted

to rest on the upper ends of the top plates or sections of the mold. In one side of the inner casing 19 is formed an opening 21, and in the outer casing 20 is formed an opening 22, said opening being formed by cutting and bending inwardly the material forming the casing. The edges of the inwardly-bent material are riveted or otherwise secured to the outer side of the inner casing adjacent to the edges of the opening 21, thus providing walls or plates 23, by which an opening or passage 24 will be formed in the neck of the structure. Pivotally connected to the casings 19 and 20, adjacent to one edge of the openings therein, are hooks 25, said hooks being adapted to be engaged with suitable keepers 26, secured to the casings at the opposite sides of the openings, thus connecting and bracing the edges of the opening. When the opening or passage 24 is formed in the molded structure, the same may be provided with a top or cover (not shown, but which may be formed of concrete or any suitable material) to close the upper end of the structure.

A mold constructed and arranged as herein shown and described may be quickly set up for use and easily knocked down and removed from the molded structure after the latter has hardened.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A mold of the character described comprising a plurality of side sections forming the body of the mold, a top-supporting ring, V-shaped adjustable braces adapted to hold said ring in place, means whereby the lower ends of said braces are engaged with the upper ends of the side sections, means whereby the upper ends of the braces are adjustably connected to said ring, top plates or sections arranged on said side sections and supporting-ring, inner and outer neck-forming casings, and means arranged on said casings to form an opening or passage through the neck, substantially as described.

2. A mold of the character described comprising a plurality of side sections forming the body of the mold, a top-supporting ring, adjustable, V-shaped braces adapted to hold said ring in place, top sections or plates supported on said ring and the upper ends of the side sections, inner and outer neck-forming casings arranged above said top plates, said casings having formed therein openings, passage-forming plates or walls arranged between said casings, said walls being formed by bending inwardly the material cut out to form the opening in the outer casing, and hooks adapted to connect and brace the edges of the openings in said plates, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

W. H. LUCAS.

Witnesses:
J. HOWARD JONES,
D. M. KELLER.