W. C. FIFE & S. R. COLEMAN.

CULVERT MOLD.

APPLICATION FILED JAN. 16, 1909.

935,007.

Patented Sept. 28, 1909.

2 SHEETS—SHEET 1.

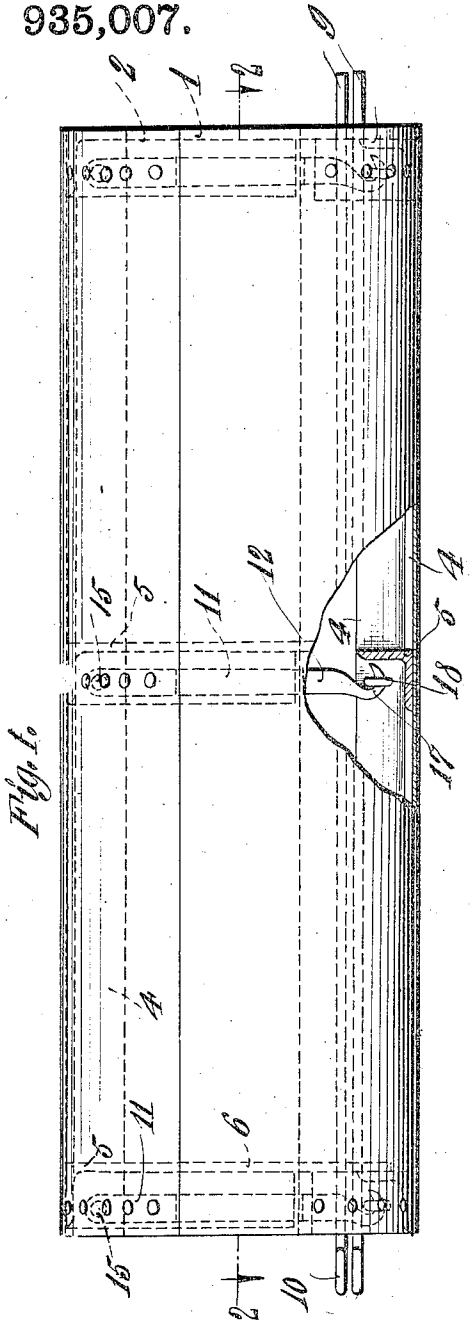

Fig. 1.

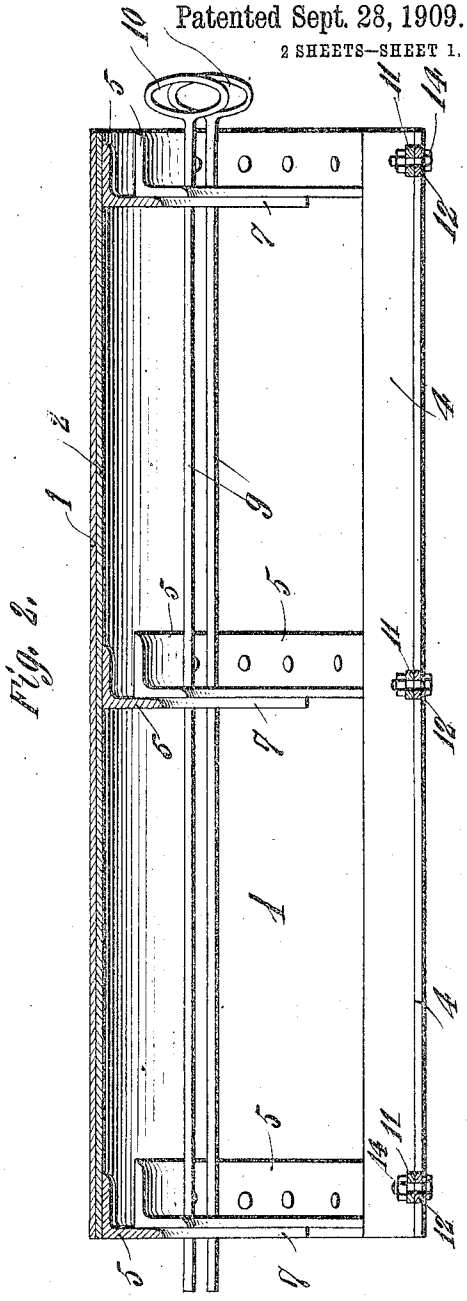

Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

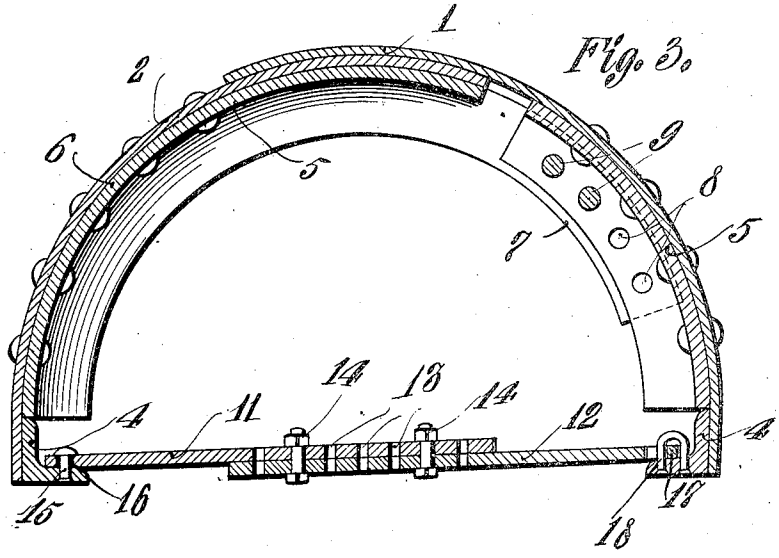
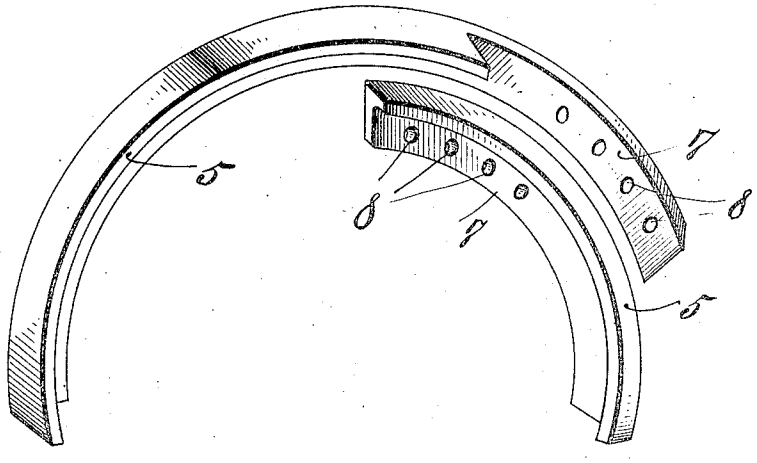


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM C. FIFE AND STANLEY R. COLEMAN, OF CARSON CITY, MICHIGAN.

CULVERT-MOLD.

935,007. Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed January 16, 1909. Serial No. 472,704.

To all whom it may concern:

Be it known that we, WILLIAM C. FIFE and STANLEY R. COLEMAN, citizens of the United States, residing at Carson City, in the county of Montcalm and State of Michigan, have invented certain new and useful Improvements in Culvert-Molds, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in molds for cement, concrete and other plastic material and more particularly to one especially adapted for use on the top of our improved culvert mold set forth in our co-pending application filed November 7, 1908, and bearing Serial Number 461,551.

The object of the present invention is to provide an improved top or cover section for a culvert mold which may be adjusted in size and also taken apart to permit of its ready removal from the molded culvert or other structure.

With the above and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view with parts broken away and in section of our improved mold; Fig. 2 is a vertical longitudinal section through the same; Fig. 3 is a vertical transverse section; and Fig. 4 is a detail perspective view of two of the angle metal reinforcing and adjusting bars for the mold sections.

In the present embodiment of the invention the mold is especially adapted for use as a top or cover member for a culvert mold such as set forth in the application above referred to, and it is of substantially semi-cylindrical form, consisting of two curved and overlapping mold sections 1, 2. These mold sections are preferably constructed of sheet metal and their bottom edges are reinforced by longitudinally extending angle metal bars 4 suitably secured to their inner faces, as shown more clearly in Fig. 3 of the drawings. Said mold sections are also reinforced by longitudinally curved and transversely extending angle metal reinforcing bars 5 which also serve as means for adjustably uniting the mold sections. The bars 5 are arranged in pairs at the ends and at one or more intermediate points on the mold sections and have their longitudinally extending flanges 6 riveted or otherwise secured to the inner faces of said mold sections so that their transversely extending flanges 7 overlap, as seen in Fig. 3. These overlapping ends of the flanges 7 of the several pairs of reinforcing bars 5 are formed with series of openings 8 adapted to be brought into register with each other to receive longitudinally extending locking rods 9. Two of said rods are preferably provided and they are of such length as to extend through all of the bars 5, suitable handles 10 being provided at one end, whereby they may be readily inserted in or removed from the bars 5. It will be noted that the portions of the longitudinally extending flanges 6 of the bars 5 opposite the overlapping portions of the flanges 7, are cut away so that the upper or inner edges of the sheet metal mold sections 1, 2 may overlap.

In order to connect the lower or bottom portions of the mold sections and hold them in proper spaced relation, longitudinally extensible connecting members are provided at the ends and at one or more intermediate portions. Each of these connecting members or bars consists of two flat sections 11, 12 with their inner ends overlapping and formed with longitudinal series of registering apertures 13 to receive bolts 14. This connection, it will be seen, permits the connecting member or bar to be varied in length according to the adjustment of the mold sections upon each other. The outer end of the bar 11 has a hinge connection with the mold section 1, preferably, by providing it with an aperture or eye 16 to receive a vertical pivot in the form of a rivet arranged in the horizontal flange of the longitudinal reinforcing angle bar 4. This pivotal or hinge connection permits the bar 11 to swing horizontally. The outer or free end of the other section 12 is shaped to provide a hook 17 to engage an eye 18 in the form of a staple arranged in the corresponding flange of the opposite bar 4, as clearly shown in Figs. 1 and 3 of the drawings.

In using the invention as the top or cover member for a culvert mold, the mold sections 1, 2 are adjusted upon each other and secured in adjusted position by passing the locking rods 9 through the registering openings 8 in the flanges 7 of the transverse reinforcing bars 5. The bracing members are then adjusted in length by means of the bolts 14 and their hooks 17 are engaged with the eyes 18 so that the bottom portions of the

two mold sections will be held in spaced relation. After the concrete or other plastic material from which the culvert or structure is molded, has become set, the hooks 17 are disengaged from the mold section 2 and the rods 9 are withdrawn so that the mold sections 1, 2 will drop away from the molded culvert and may be removed from the open end of the same.

While the invention has been shown and described as especially adapted for use as the top or cover member of a culvert mold, it will be understood that it may be used by itself as a culvert mold and in other ways.

Having thus described the invention what is claimed is:

The hereindescribed mold top comprising two segmental plates forming mold sections and having their upper edges overlapped and slidably engaged, longitudinally extending angle metal reinforcing bars upon the lower edges of said plates, transversely extending segmental angle metal reinforcing bars arranged upon the inner faces of said plates and having their overlapping flanges formed with registering openings, longitudinally extending locking rods passed through the registering openings of all of said transverse bars and longitudinally extensible transverse connecting bars detachably uniting the longitudinal reinforcing bars of the mold sections.

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

WILLIAM C. FIFE.
STANLEY R. COLEMAN.

Witnesses:
CHARLES F. FOWLER,
HARRY JEFFORDS.