April 11, 1944. N. CUPIDO 2,346,361

PORTABLE CONCRETE COVER

Filed March 11, 1942

Fig. 1.

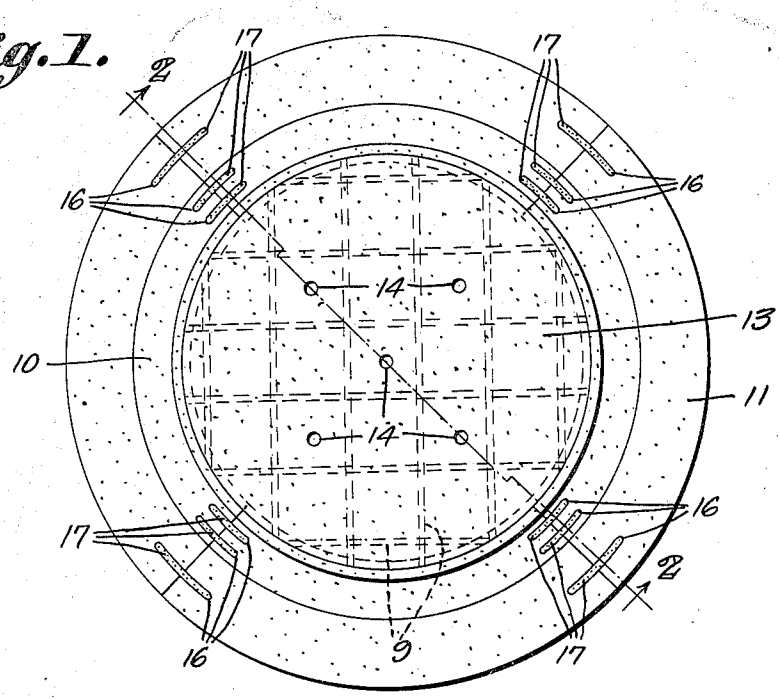


Fig. 2.

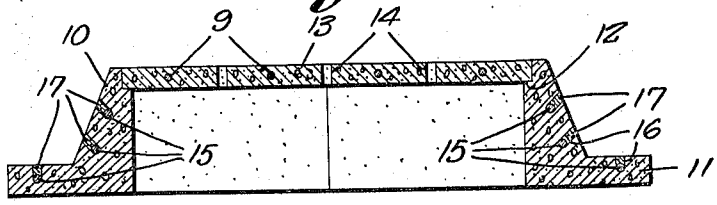


Fig. 3.

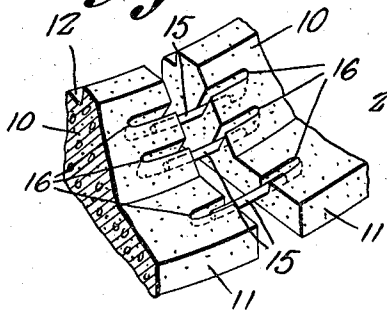
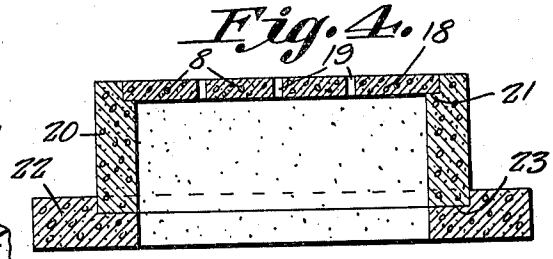


Fig. 4.



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PORTABLE CONCRETE COVER

Nicola Cupido, Brentwood, Pa.

Application March 11, 1942, Serial No. 434,277

1 Claim. (Cl. 72—100)

This invention relates to a portable concrete cover especially adapted for manholes and has for an object to provide a manhole cover which may be constructed of reinforced concrete, at a remote point, or at the location it is to be used, and will eliminate the use of iron castings which at the present time are difficult to procure because of the existing requirements of metal for defense projects.

A further object is to provide apparatus of this character which will be formed of a few strong, simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming a part of this specification:

Figure 1 is a top plan view of a portable concrete manhole cover constructed in accordance with the invention.

Figure 2 is a cross sectional view of the manhole cover taken on the line 2—2 of Figure 1.

Figure 3 is a detail perspective view showing the grooves and rods therein for securing the sections of the manhole cover in assembled relation.

Figure 4 is a cross sectional view of a modified form of the invention.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates an annular collar having an integral outwardly directed base flange 11, the collar gradually increasing in thickness in the direction of the flange and being formed of concrete. The upper edge of the collar is rabbeted as shown at 12 to receive a lid 13. The lid is reinforced by reinforcing rods 9 extending across the lid, see Figure 1.

The lid 13 is also formed of concrete and is provided with a plurality of openings 14 extending from the upper face to the lower face.

The collar and its integral flange are formed in sections, there being preferably four sections, each substantially a quadrant of a circumference in length, as best shown in Figure 1. The sections are held in assembled relation by short rods 15 which are mounted in grooves 16 formed in the upper side of the base flange and formed in the outer side of the collar at the ends of the sections, see Figure 3. The grooves in the outer side of the collar incline downwardly and inwardly and all of the grooves are deeper than the diameter of the respective rods whereby to permit the rods to be secured in place by cement 17. A modified form of the invention is shown in Figure 4 in which the manhole cover is formed of only three pieces, a lid 18, having openings 19 therein, a collar 20, which is preferably cylindrical and is rabbeted as shown at 21 to receive the lid 18, and an annular base flange 22 which is rabbeted as shown at 23 to receive the bottom of the collar 20. The three sections are formed of concrete, and the lid is reinforced by rods 8.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

In a manhole cover, a collar consisting of a plurality of units made of concrete and each having a vertical member and a horizontal member, the horizontal members of the units extending outwardly from the base of the vertical members and the vertical members incerasing in thickness in the direction of the horizontal members, the horizontal and vertical members of the units being provided in their end portions with grooves opening through the outer surfaces and ends of the units, rods located in the grooves and extending across the ends of the units, the grooves being of greater depth than the thickness of the rods, cement in the grooves on top of the rods and extending across the ends of the units, the rods and the cement holding the units in assembled relation against any vertical or outward horizontal movement with relation to each other, and a lid mounted on the collar.

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