

S. L. SHEPARD.

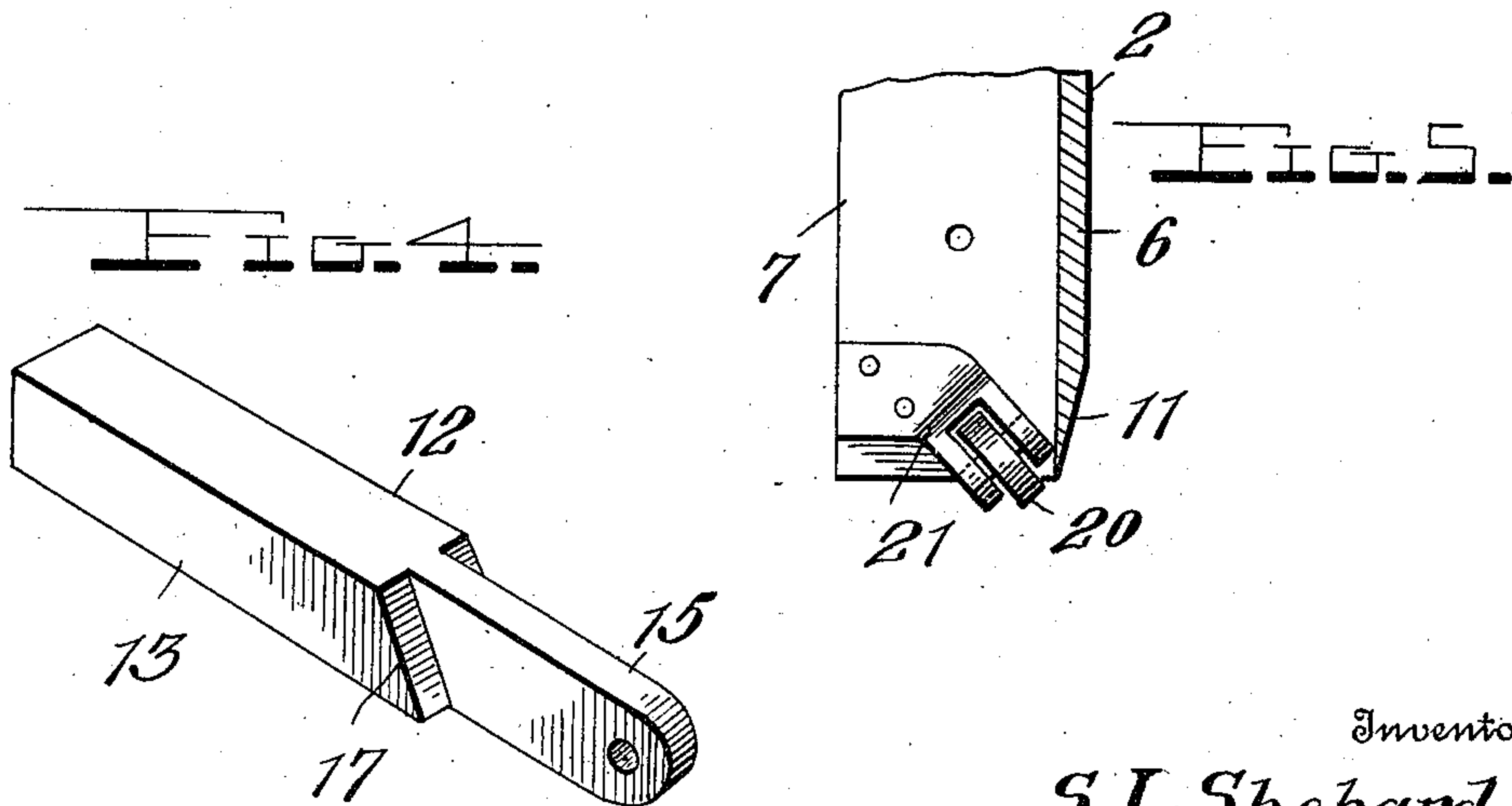
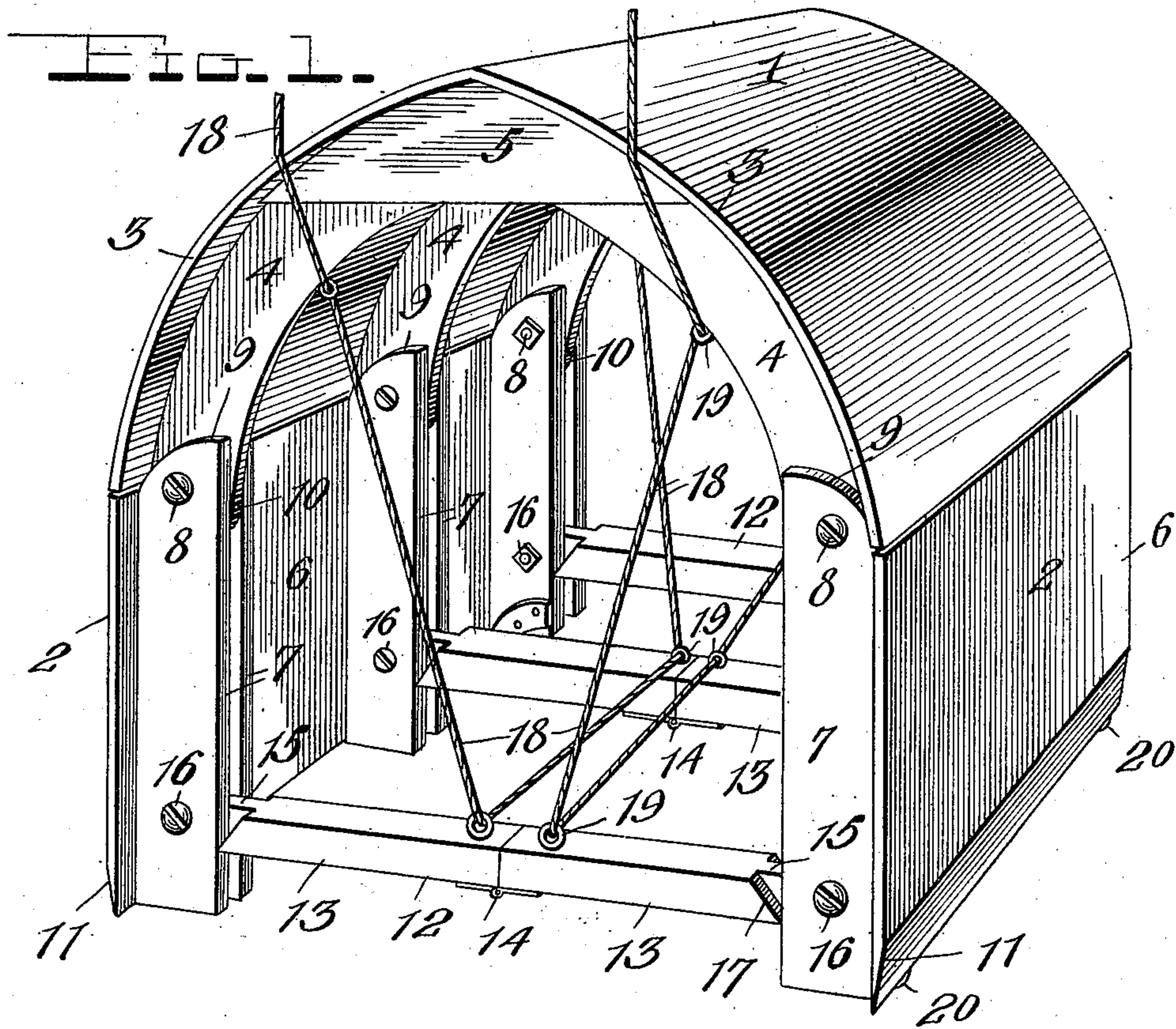
MOLD.

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2 SHEETS—SHEET 1.



Witnesses

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MOLD.

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To all whom it may concern:

Be it known that I, STANLEY L. SHEPARD, a citizen of the United States, residing at Parishville, in the county of St. Lawrence and State of New York, have invented certain new and useful Improvements in Molds, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in collapsible molds for making conduits, culverts and the like of concrete, cement or other plastic material.

The object of the invention is to provide a simple and practical device of this character which is especially adapted for the purpose intended, which will be strong and durable in use and inexpensive to construct, and which may be quickly and easily collapsed to permit of its ready removal from the molded structure.

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

Figure 1 is a perspective view of my improved mold; Fig. 2 is a longitudinal section; Fig. 3 is an end view showing the mold collapsed to permit of its removal from the molded structure; Fig. 4 is a perspective view of one of the braces; and Fig. 5 is a detail view showing one of the supporting rollers.

My improved collapsible mold comprises an arched top section 1 and two inwardly folding side sections 2, the latter being disposed perpendicularly when the mold is in use. The mold sections may be constructed of wood or metal and the arched top section consists of a curved or arched-shaped body portion 3 from the inner face of which projects a plurality of transversely extending ribs or flanges 4, which latter may have their central portions reinforced by cleats 5 in order to strengthen the center of the arched top section. The side sections 2 which are similar in construction each consist of a rectangular body portion or plate 6 from the inner face of which project pairs of transverse ribs or flanges 7, which latter are adapted to receive the flanges 4 between them and are pivotally united to said flanges 4 by bolts 8 or other removable fastenings whereby the three mold sections are detach-

ably pivoted to each other. When the mold is set up for use the side sections 2 are in perpendicular position and the upper edges of the body portions 6 of said sections abut the lower edges of the curved body portion 3 of the top section, and to permit of this the upper edges of the flanges 7 are formed with rounded extensions 9 and the lower ends of the flanges 4 are formed with similar rounded extensions 10 so that the pivots or bolts 8 pass through the extensions 9, 10, as clearly illustrated in the drawing. The outer faces of the bottom edges of the body portions or plates 6 of the side sections are beveled inwardly, as shown at 11 to permit the mold to be more easily collapsed in the molded structure.

In order to retain the mold in its set up or operative position a plurality of folding braces 12 are provided, each of said braces consisting of two similar sections 13 which have their inner ends connected by hinges 14, and their outer ends pivotally united to the lower portions of the side sections 2. This pivotal connection is effected by cutting away the opposite side faces of the brace sections 13 to provide reduced tongues 15 which latter enter between the spaced flanges 7 and are pivoted thereto by bolts 16 or other removable pivots. The formation of the tongues 15 provide on the brace sections 13 diagonally arranged shoulders 17 which are adapted to engage the inner edges of the flanges 7 to limit the inner swinging movement of the side sections 2 when the mold is collapsed. In order to simultaneously fold all of the braces 12 I provide a pair of operating cords or similar flexible elements 18 which pass through guide eyes 19 on the braces and the top section 1 and then out through one end of the mold. As illustrated the cords 18 each have one end secured to the hinged connected inner ends of the sections 13 of the folding brace at one end of the mold and from these points of attachment the cords pass upwardly through guide eyes on the flange 4 immediately above said folding brace, then downwardly and longitudinally to guide eyes on the sections of the remaining braces and then upwardly from the brace at the other end of the mold through guide eyes on the flange 4 at the last mentioned end of the mold. Owing to this construction it will be seen that when the projected upper ends of the cord are drawn

upon the several braces will be simultaneously folded to swing the side mold sections inwardly and thereby cause the mold to collapse and the arched top section to drop
5 sufficiently to enable the device to be removed from the folded structure.

In order to permit of the ready removal of the mold from the molded structure, I provide on the bottom edges of the side
10 mold sections 2 rollers 20. The latter are journaled in angular brackets 21 secured to certain of the flanges 7 and are so disposed that when the side sections 2 are swung inwardly said rollers will run upon the bot-
15 tom of the conduits, culverts or other mold structure, as indicated in Fig. 3 of the drawing.

From the foregoing it will be seen that my invention provides an exceedingly simple and practical collapsible mold which is
20 highly efficient for use in making culverts, conduits and the like of concrete; and that the peculiar construction renders it strong, durable and at the same time comparatively
25 inexpensive; and that owing to the provision of the folding braces and the cords and guides the mold may be quickly and easily collapsed to permit of its ready removal from the folded structure.

30 Having thus described the invention, what is claimed is:

1. A mold of the character described comprising an arched top section provided with inwardly extending transverse flanges, in-
35 wardly folding side sections having body portions provided on their inner faces with pairs of spaced transversely extending flanges adapted to receive the flanges of the top section between them, pivots uniting
40 the flanges of the two sections, folding braces uniting the lower portions of the side sec-

tions and consisting of half sections having their inner ends hinged together to permit the brace sections to swing upwardly, the outer ends of said brace sections having
45 their opposite side portions cut away to form tongues to enter between the spaced flanges on the side sections of the mold, and pivots uniting said tongues to said flanges on the side sections of the mold. 50

2. A mold of the character described comprising an arched top section provided with inwardly extending transverse flanges, inwardly folding side sections having body
55 portions provided on their inner faces with pairs of spaced transversely extending flanges adapted to receive the flanges of the top section between them, pivots uniting the flanges of the two sections, folding
60 braces uniting the lower portions of the side sections and consisting of half sections having their inner ends hinged together to permit the brace sections to swing upwardly, the outer ends of said brace sections having
65 their opposite side portions cut away to form tongues to enter between the spaced flanges on the side sections of the mold, pivots uniting said tongues to said flanges on the side sections of the mold, guide eyes
70 upon the interior of the top mold section and upon the hingedly connected ends of the brace sections, and operating cords passed through said guide eyes and having one end connected to the sections of the brace
75 at one end of the mold.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

STANLEY L. SHEPARD.

Witnesses:

P. J. CLARK,

D. A. McCARTER.