March 18, 1941. J. F. HINES 2,235,451

MOLD CONTAINER

Filed May 12, 1939

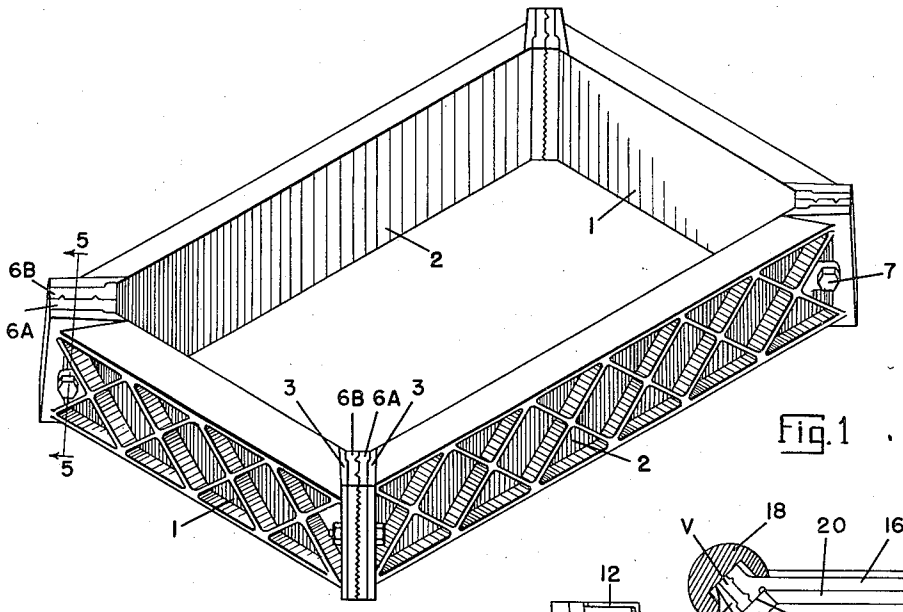


Fig. 1

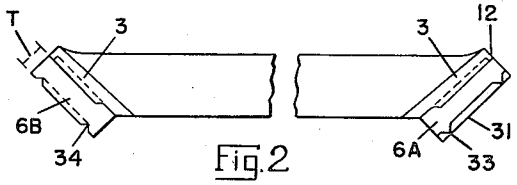


Fig. 2

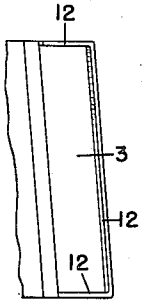


Fig. 4

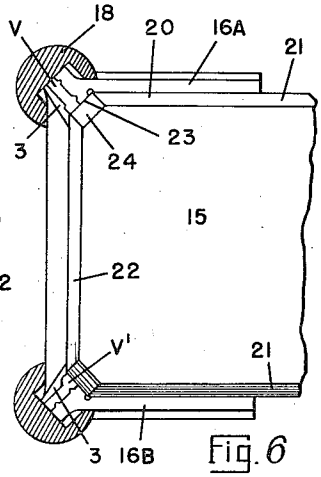


Fig. 6

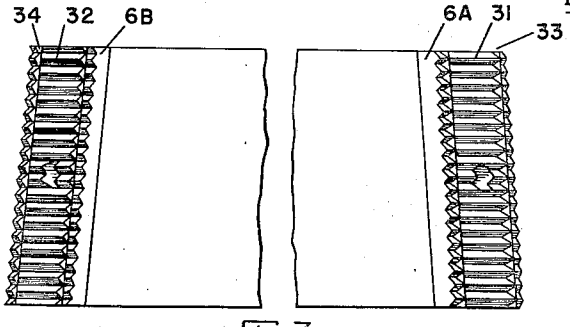


Fig. 3

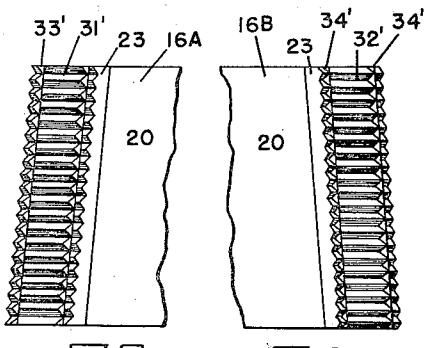


Fig. 7

Fig. 9

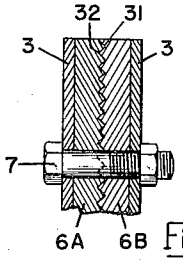


Fig. 5

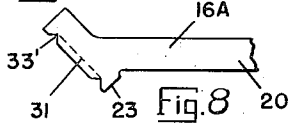


Fig. 8

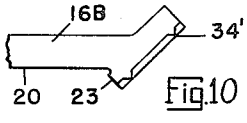


Fig. 10

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Patented Mar. 18, 1941 2,235,451

# UNITED STATES PATENT OFFICE

2,235,451

## MOLD CONTAINER

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Application May 12, 1939, Serial No. 273,192

1 Claim. (Cl. 22—112)

This invention relates to the construction of mold containers and is here illustrated as applied to a mold jacket.

One aim of the invention is to eliminate the need for machining jacket walls to finished length; by my invention the walls can be cast to less than finished length without close lengthwise dimensioning, and do not need to be machined or worked in any way after they are cast; these ends before assembly have additional faces or extensions cast thereon which constitute the ultimate end finish of the panel and are the adjacent faces in the corner formation of the completed jacket.

My invention also includes the means of producing a mold container of exact size from stock material which is of a standard size other than the finished dimensions. For example, if a side wall or end wall for a mold container is 12" long as manufactured for stock, it can be used by my invention for the side of a flask anywhere from about 12½" long to about 14" long, and be of the precise required finished dimension and adapted to be placed as a wall element of a flask structure of precise dimensions without any machining or other work beyond a simple casting process.

Further details and particulars of the invention will disclose its purposes and advantages more completely. It will be understood that the accompanying drawing and the descriptive matter following are illustrative of a preferred method and embodiment and are not to be taken as limitations.

In the accompanying drawing

Fig. 1 is a perspective of a completed mold jacket made according to the principles of my invention;

Figs. 2 and 3 are respectively a top plan and an inner face elevation of a completed wall of the jacket of Fig. 1;

Fig. 4 is a stock piece for a jacket wall used in my invention;

Fig. 5 is an enlarged section on the plane 5—5 of Fig. 1;

Fig. 6 is a plan view of a molding jig for casting ends on mold container walls;

Figs. 7 and 8 are respectively an inner face elevation and a plan of matrixes used with the jig of Fig. 6 to form the male end wall shown at the right of Fig. 3; and

Figs. 9 and 10 are corresponding views of matrixes to form the female end wall shown at the left of Fig. 3.

Referring now particularly to Fig. 1, my mold container, illustrated in that figure as a jacket, comprises walls 1, 1, 2, 2, which are initially made for stock with uncompleted ends 3, Fig. 4, and subsequently brought together to exact dimensions and fit by finishing ends or addenda 6A, 6B, cast thereon, the jacket walls being suitably secured together, preferably by a single bolt such as 7 at each corner.

The nature of the corner connections will become apparent from the description of the method of making the same. The stock wall pieces include any specific features which are desired, and are made in lengths somewhat less than will be required for use. Their ends 3 are preferably formed at mutually complementary angles, ordinarily 45°, and are left unfinished in the sense of the present use. That is, each end 3 includes some adaptation for holding the addendum 6, such adaptation in the present instance being shown as a shallow flange 12 on three sides.

To form a wall 1 or 2 to a final size, a stock wall piece is placed at the proper level on one face of the jig 15, Fig. 6. Such jig or forming block is the same as that illustrated in Figs. 6 and 7 of my Patent No. 2,006,240 or in Fig. 2 of my present application Serial No. 148,492. Matrixes 16A and 16B, Figs. 7 to 10 are mounted at the corresponding level on opposite faces of the jig 15, one adjacent each end of the wall piece. A backing block 18 is attached, and molten metal, usually aluminum, is poured into the cavities V and V', thus forming the addendum firmly bonded on each wall end 3 by suitable means such as the flanges 12 typify.

It will be observed that the container side is thus finished to exact length according to the setting of the parts on the jig 15, and that the jig can be used to turn out any quantity of completed walls of identical dimensions. Walls may of course be finished to other sizes by a similar process upon a longer face of the jig 15, or by setting all the elements higher or lower, as the case may be, upon the jig.

Both matrixes 16A and 16B have a long face 20 to bear upon a considerable surface of the jig wall 21 or 22, and a shoulder 23 to bear against the jig corner chamfer 24.

The addendum faces are relatively male 6A and female 6B both in the transverse teeth 31, 32 and in the longitudinal tongue 33 and groove 34, with the obvious result that on each of the four sides of the container one end will be male and the next female all the way around so that when these sides are properly brought together each will fit the next at exact level and in-and-out position. Bolts 7 or other corner fastenings

will then permanently secure the miter joints at the corners. The male face is formed by casting against a female matrix 16A and conversely with matrix 16B. In Figs. 7 to 10 the elements are numbered the same as the face elements which they form, but with primes.

Certain practical and preferred embodiments of my invention having been described, reference is made to the claim for definition of its scope.

I claim:

A mold container comprising in combination a plurality of side walls arranged to define corners at their adjacent ends; opposed cast addendum faces formed on the adjacent ends of said walls to form a miter joint at each corner, each opposed pair of faces having a plurality of closely intermeshing transverse teeth and a longitudinal tongue and groove pair which fit closely; and a connector at each corner arranged to hold the said teeth and tongue and groove pair together.

JAMES F. HINES.