J. BARKER.

MOLDING FLASK.

APPLICATION FILED FEB. 4, 1910.

973,907.

Patented Oct. 25, 1910.

Fig. 1.

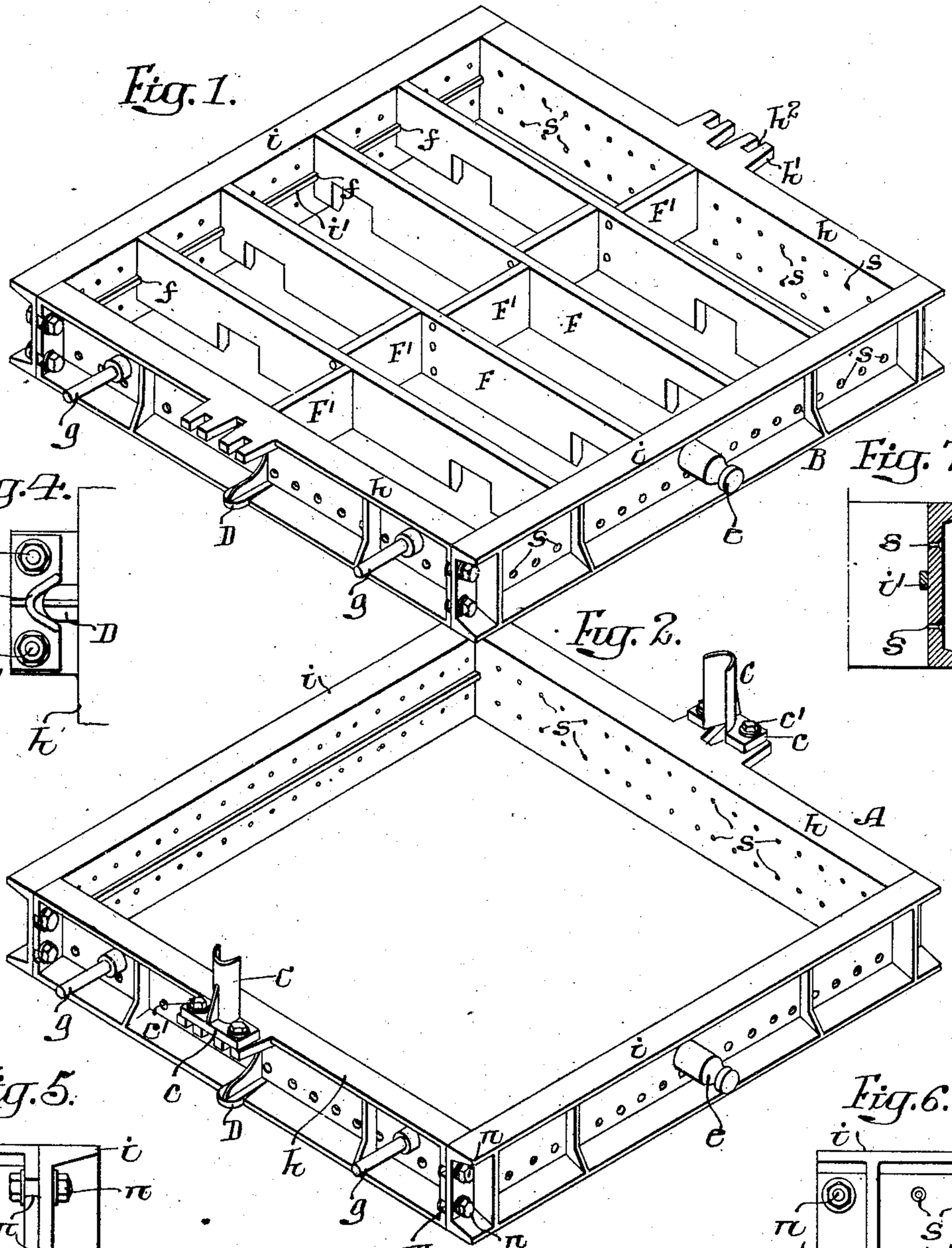


Fig. 7.

Fig. 4.

Fig. 2.

Fig. 5.

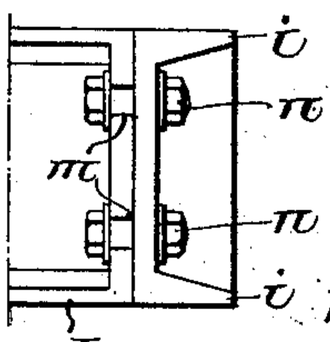


Fig. 6.

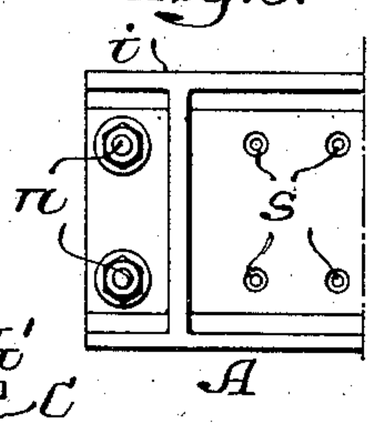
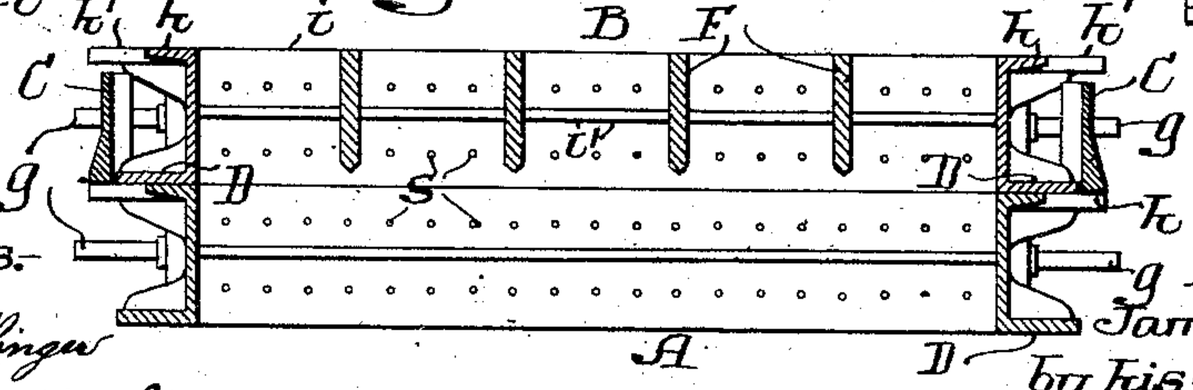


Fig. 3.



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MOLDING-FLASK.

973,907. Specification of Letters Patent. Patented Oct. 25, 1910.

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To all whom it may concern:

Be it known that I, JAMES BARKER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Molding-Flasks, of which the following is a specification.

My invention relates to certain improvements in the construction of flasks for molding, particularly those made of metal.

The main object of my invention is to so construct a flask that one part can be readily brought accurately in line with another part and yet quickly removed without binding.

A further object of the invention is to so construct the flask that cross bars can be placed within the flask at any point desired.

A still further object is to so construct the flask that it can be used either as the cope or drag section, or as an intermediate section, as desired.

In the accompanying drawing:—Figure 1, is a perspective view of the cope section of the flask illustrating my invention; Fig. 2, is a perspective view of the drag section; Fig. 3, is a sectional elevation showing the two portions of the flask, one mounted on another; Fig. 4, is a plan view of a portion of Fig. 3; and Figs. 5, 6 and 7, are views illustrating details of the invention.

A is the drag section of the flask and B is the cope section. These two sections of the flask are made identical, with the exception that the drag has vertical guides C secured thereto for the projections D on the cope.

Each flask has the two channeled side members *i* and two channeled end members *h*, in the present instance, which may be reinforced at intervals by ribs, as shown, if found necessary. On each end section are handles *g*, *g* by which the sections of the flask can be manipulated by the molder, and *e*, *e* are grooved trunnions to which may be coupled the hooks of a crane when it is desired to lift or invert the flask.

In each end of the side members are holes for the passage of bolts *n*, and these bolts pass through slots *m* in the end members *h*. By loosening these bolts the end members can be readily adjusted and, when necessary, detached from the side members, where it is desired to store the flask or shift it.

On each end of each flask are brackets *h'* slotted at h^2 to receive bolts *c'*, which pass through flanges *c* forming the base of the vertical guides C. By this construction these guides can be readily removed from one flask and placed on another, if necessary, as the flasks can be either used as copes or drags by simply shifting the guides. The openings in the flanges *c* are preferably in the form of slots, so that the parts can be readily adjusted, as it is desirable that the projections D should neatly fit in the guides C. The end of each projection D is rounded and the interior of the guide is V-shaped, insuring a neat fit.

The projections D are made as thin as possible, so that the moment one end of the cope is raised from the drag the projection D is freed from the vertical guide C, so that the cope can be readily lifted without binding. Heretofore, the usual practice has been to make long pins on one part having extended bearings on the other part, and the cope has to be carefully raised, otherwise the pins are liable to bind in the bearings. The great difficulty in the use of metal flasks is the fact that the cross bars cannot be readily adjusted. By my invention, however, I use wooden cross bars, which can be adjusted and arranged the same as the bars in an ordinary wooden flask.

On each side member I of the flask is an internal rib *i'* located preferably midway between the upper and lower edges of the flask, and in the four sides of the flask, in the present instance, are two series of perforations *s*. These perforations are preferably countersunk on the outside. The cross bars F are notched at each end *f* to engage the ribs *i* so as to prevent them moving vertically, and nails are driven through the perforations which are in line with the cross bars. These nails pass through the frame of the flask and into the body of the bar holding it perfectly rigid as shown in Fig. 7. The blocks F', if necessary, may be placed at intervals between the bars and secured thereto by nails or other fastenings.

It will be seen by the above construction that I can construct a flask, which is made of metal, with wooden bars which can be adjusted to any position desired for use as the cope section of the flask.

By making the end members adjustable I can adjust all the drags and copes to the proper width and by adjusting the vertical guides C of the drag to aline with the projections on the cope I can ram any number

of drags first and then ram the cope and apply any cope to a drag, insuring the proper alinement and fit.

I claim:—

1. The combination in a flask of two members, one member having vertically arranged V-shaped guides at each end, the other member having thin projections adapted to the guides so that when the cope is tilted and raised from the drag the projection will be immediately cleared of the guide.

2. The combination in a metal flask having at one edge at each end slotted projections adapted to receive guides, and at the other edge thin projections adapted to the guides of another flask section.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

JAMES BARKER.

Witnesses:
WM. E. SHUPE,
WM. A. BARR.