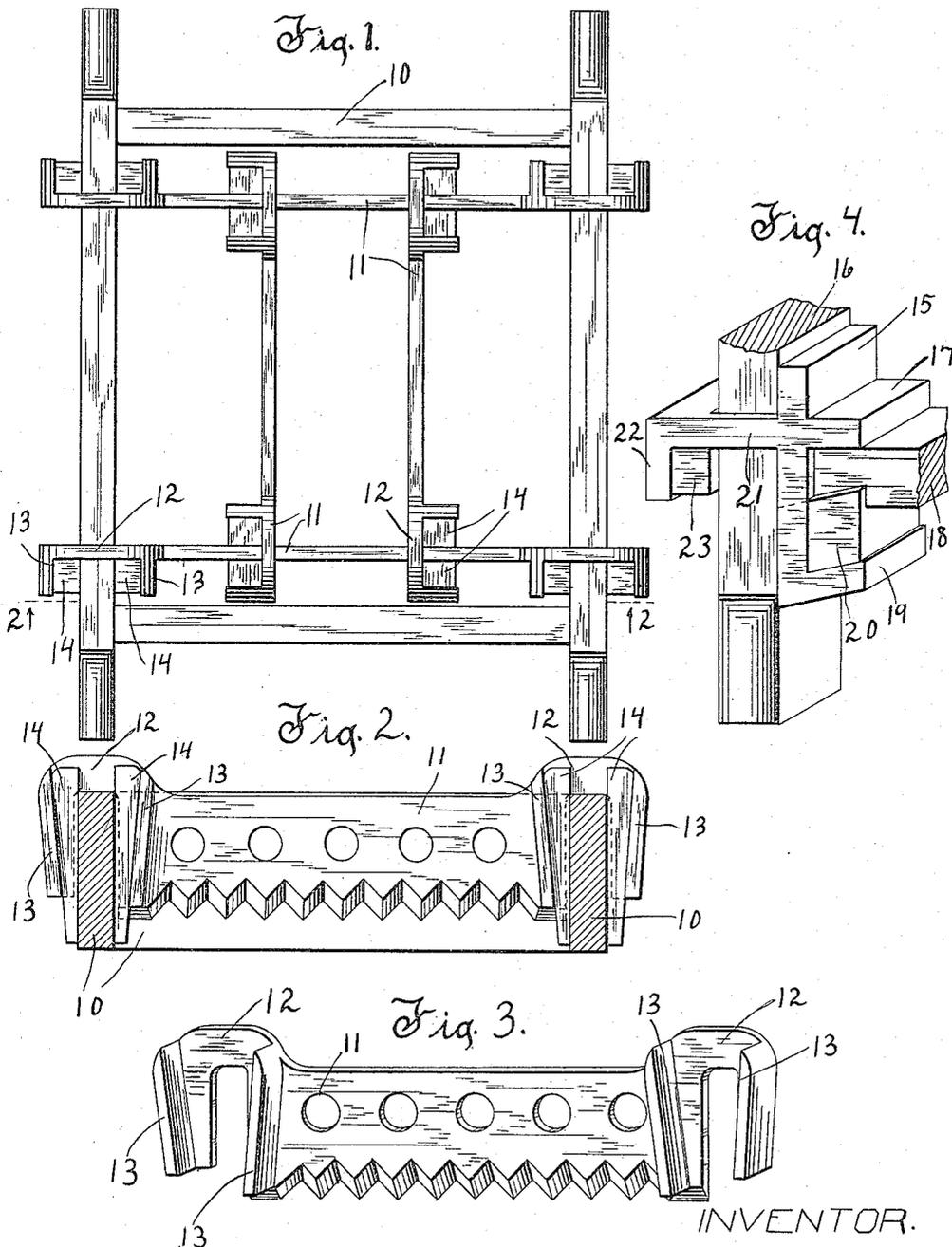


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E. KRUEGER.
SAND BAR FOR MOLDERS' FLASKS.
APPLICATION FILED JULY 1, 1912.

1,155,073.

Patented Sept. 28, 1915.



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SAND-BAR FOR MOLDERS' FLASKS.

1,155,073.

Specification of Letters Patent.

Patented Sept. 28, 1915.

Application filed July 1, 1912. Serial No. 706,846.

To all whom it may concern:

Be it known that I, ERNEST KRUEGER, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Sand-Bars for Molders' Flasks, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to molders' flasks and particularly to the fastening means for sand retaining bars therein which will permit of the adjustment of said bars while clamping them firmly in their adjusted positions.

It has been the common practice to fasten sand retaining bars within the cope sections of molders' flasks by nailing them in place, the nails being driven through the walls of the flask section and through the wooden sand retaining bars themselves. This results in the destruction of the flask section and the sand retaining bars necessitating frequent renewal of parts.

It is the object of the present invention to dispense with such clamping means of a more or less permanent nature and substitute a temporary clamping means employing the use of wedges which serve to clamp the sand retaining bars in any position desired and are adapted for reengagement any number of times without mutilation of parts.

Another object of the invention is to embody such clamping means as a part of the sand retaining bar in such a manner that it may be formed integral therewith at a single casting of metal only requiring the separate wedges to cooperate therewith.

With the above and other objects in view the invention consists in the molder's flask as herein claimed and all equivalents.

Referring to the accompanying drawings in which like characters of reference indicate the same parts in the different views: Figure 1 is a plan view of a molder's flask provided with sand bars in accordance with this invention; Fig. 2 is a sectional view thereof on the plane of line 2-2 with the longitudinal bars omitted; Fig. 3 is a perspective view of one of the sand bars; and Fig. 4 is a corner connection for flasks showing a modification of the connecting means.

In these drawings 10 indicates the cope member of a molder's flask made up of

side pieces and end pieces as usual and having the sand retaining bars 11 of this invention applied thereto. Such sand retaining bars extend from one side member of the flask section to the other and have other sand retaining bars connecting them as usual, but the feature of this invention consists in the clamping means by which the sand retaining bar is secured to the flask section or to other retaining bars. Each sand retaining bar 11 is preferably perforated and serrated at its lower edge as shown and as is usual with other sand retaining bars, but at its ends it is provided with hook members 12 with lateral projecting flanges 13 opposite each other and positioned at an angle with relation to each other to form a tapering throatway between them through which the side piece of the flask section 10 passes. The flanges 13 are set back from the walls of the opening of the hook 12 so that wedges 14 may be slipped between said flanges and the inner and outer walls of the side pieces of the flask section 10 and serve, when driven into place, to firmly clamp the sand retaining bar to the flask section. Each of the sand retaining bars has such a clamping engagement at both ends with the side pieces of the flask section to form a rigid brace extending across the flask section and as its engagement with the side pieces of the flask section is merely the frictional engagement of the wedges it is obvious that such engagement may be made wherever desired and thus the sand retaining bar may be shifted or adjusted from one position to another without the necessity for driving nails or otherwise defacing the flask sections. The sand retaining bars which are not lengthwise of the flask section are identical with the others and engage the others instead of the walls of the flask as clearly shown in Fig. 1. They are likewise adjustable so that the sand retaining bars may be positioned as close to the pattern as may be desired and may be readily changed in position to accomplish this purpose. While a material adjustment of the cross sand retaining bars makes it necessary to substitute other longitudinal sand retaining bars of different length, a limited adjustment of the cross bars may be permitted without such substitution owing to the sand retaining bars being narrower than the opening of the hook portion, permitting a shift-

ing of the position of the wedges to allow such change.

In Fig. 4 is shown a modified form of corner connection which may be employed either for connecting sand retaining bars to each other or to the side pieces of the flask section or which may be employed for fastening together the side and end pieces of the flask sections themselves. In this construction a plate 15 bears against the inner face of one connected member 16 and has a flange 17 against which the other connected member 18 bears while abutting its end against the said plate, there being another flange 19 extending from the plate parallel lengthwise with the flange 17 but inclined toward it and adapted to receive a wedge block 20. The wedge block 20 also fits in a dove-tail recess of the connected member 18 to firmly connect the end of said member 18 to the plate 15. The plate 15 has an arm 21 reaching over the connected member 16 and terminating in a flange strip 22 and another wedge block 23 when forced between the strip 22 and the connected member 16 serves to tightly clamp the plate 15 on the connect-

ed member 16 and thus complete the corner connection.

What I claim as new and desire to secure by Letters Patent is:

1. A sand retaining bar for flasks provided with hooks at its ends to receive the side pieces of a flask section, flanges projecting from the hook members on opposite sides of the openings thereof and at an angle with relation to each other, and wedge blocks fitting between the flanges and the side pieces of the flask.

2. A sand retaining bar for molders' flasks, comprising a bar member provided with flanged hook-like ends, the flanges on opposite sides of the openings of the hook-like ends being converging with relation to each other, and wedge blocks for fitting between the flanges and the part engaged by the hook-like ends.

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

ERNEST KRUEGER.

Witnesses:

KATHERINE HOLT,
CLARA MUEHLBACH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."