

W. LEWIS.
LEVELING SUPPORT FOR MOLDERS' FLASKS.
APPLICATION FILED MAR. 20, 1912.

1,050,281.

Patented Jan. 14, 1913.

3 SHEETS—SHEET 1.

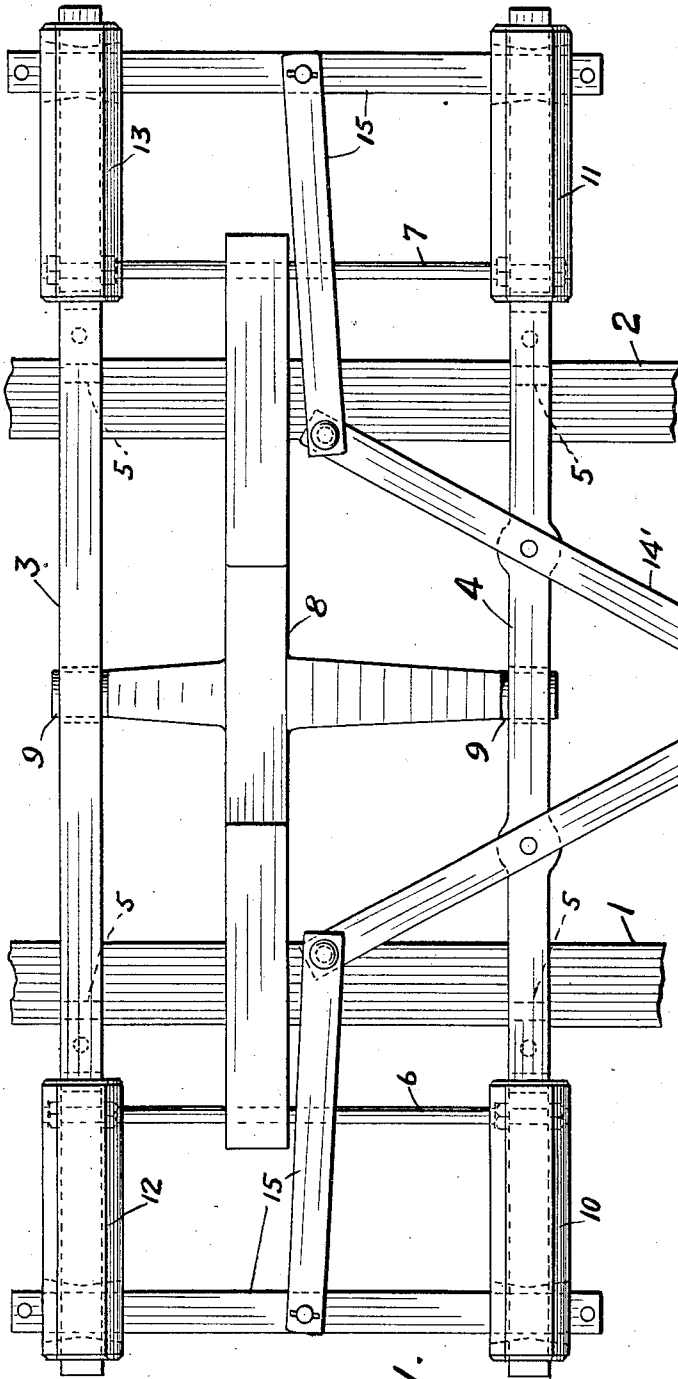


FIG. 1.

WITNESSES:

Robt. R. Kitchel.
Frank C. French

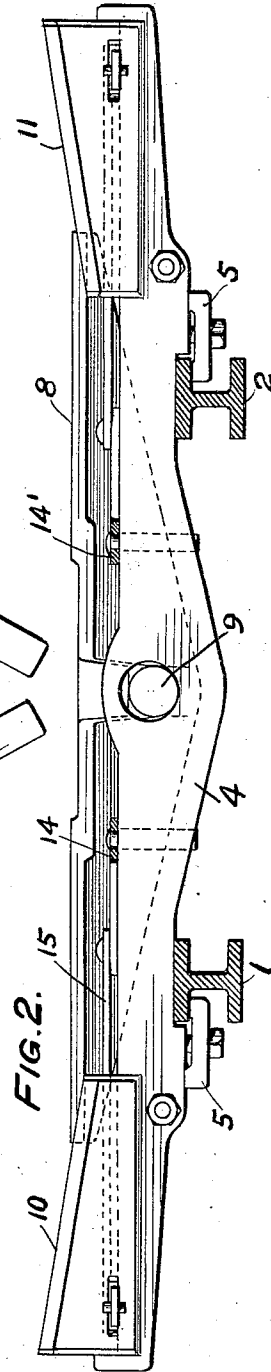


FIG. 2.

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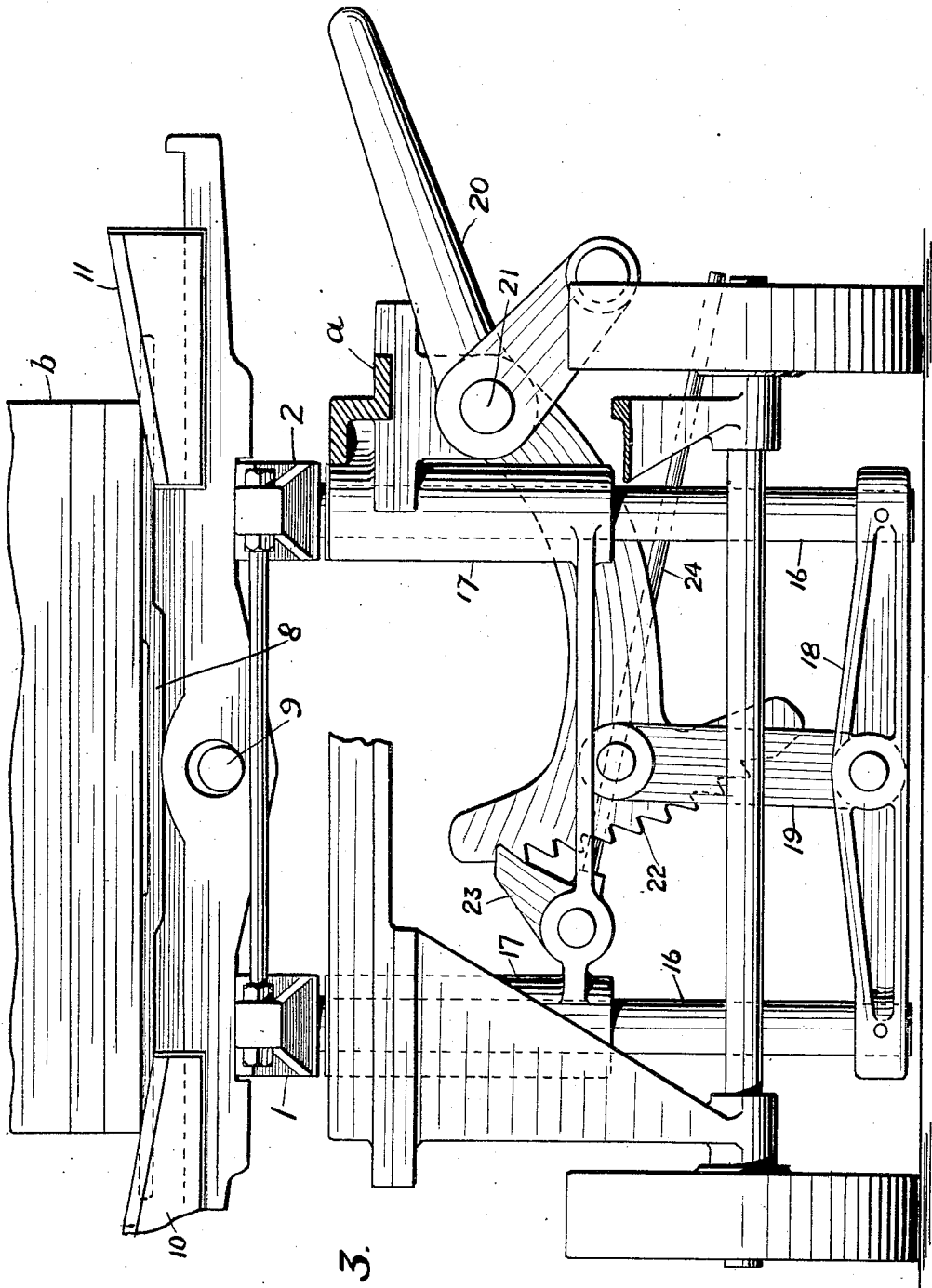


FIG. 3.

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3 SHEETS—SHEET 3.

FIG. 4.

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UNITED STATES PATENT OFFICE.

WILFRED LEWIS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE TABOR MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

LEVELING-SUPPORT FOR MOLDERS' FLASKS.

1,050,281.

Specification of Letters Patent.

Patented Jan. 14, 1913.

Application filed March 20, 1912. Serial No. 685,026.

To all whom it may concern:

Be it known that I, WILFRED LEWIS, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Leveling-Support for Molders' Flasks, of which the following is a specification.

While not intended exclusively for use in connection with the molding machine of the general type described in Letters Patent 824,317, of June 26th, 1906, to H. Tabor, still the support of the present invention is in some respects particularly well adapted for use in connection with that Tabor machine in which the mold and its bottom and pattern boards and contents are connected with pivotal arms or a carrier by which they are rolled over and in which these arms are positioned by stops on a vertically guided member or movable frame which is lifted so as to raise the positioned arms and with them the pattern in order to draw the latter vertically out of the mold.

The principal objects of the present invention are to provide a leveling device which will rest firmly on its supporting bars or other support without rocking; to provide for properly supporting the weight of the flasks so as to relieve the leveling wedges of that duty and leave them free to steady and hold flasks in their true positions; to provide against the effect of spring in the parts which would tend to get the flask out of line with the line of draft of the pattern; and to provide a support which can be readily adjusted to flasks of different widths or sizes.

The invention will be claimed at the end hereof but will be first described in connection with the accompanying drawings in which one embodiment of it is illustrated in connection with parts of a molding machine of the type described in said Tabor patent and in which—

Figure 1, is a top or plan view of a leveling support embodying features of the invention. Fig. 2, is an end view of the same, partly in section. Fig. 3, is an end view of parts of a machine of the type illustrated in said Tabor patent provided with a leveling support embodying the present invention, and Fig. 4, is a side view of Fig. 3.

In the drawings 1 and 2, are adjustable

supporting bars or arms. Upon these rest rails 3 and 4, and these rails may be slid along the bars or arms 1 and 2, and clamped thereto by means of clamps 5. Although these rails 3 and 4, are connected by spreaders or distance pieces 6 and 7, still this connection is not rigid so that each rail 3 and 4, can independently come to a bearing on the bars 1 and 2, or other support. This is evidently advantageous because the rails 3 and 4, remain at rest and do not rock.

8, is a rocker arm, the trunnions 9, of which have pivotal connection with the rails 3 and 4.

10, 11, 12 and 13, are wedges arranged in pairs with their butt ends outward and the wedges of each pair are adapted to slide toward and away from each other along one of the rails. The handle 14, pivoted to the rail 4, and operating upon linkage 15, affords means for shifting the wedges 10 and 12; along the rails, and the handle 14¹, similarly arranged and acting on similar linkage is a means for shifting the wedges 11 and 13, along the rails.

The bars or arms 1 and 2, which carry the described parts may be made vertically adjustable. For this purpose and as shown in Figs. 3 and 4, these bars are carried by rods 16, working through guides 17, and connected by a yoke 18. The yoke 18, is connected by a link 19, with the inner end of a lever 20, pivoted at 21, to the frame *a*, of the machine, so that when the lever 20, is turned the arms or bars 1 and 2, are raised and lowered. The inner end of the lever 20, is provided with a toothed quadrant 22, with which engages a detent 23, and this detent is provided with a handle 24, by means of which it can be made to disengage the teeth of the quadrant.

The various parts of the machine shown on the drawing and not herein specifically referred to are the well known parts of the machine of the Tabor patent and require no further description than is there given, although some of them are numbered as in that patent with the addition of the exponent "a"—that is to say, 1^a, is a movable frame, 18^a, is an arm and 24^a, is a handle for moving the frame.

The operation of the device may, for the sake of explanation, be described as fol-

lows: The rails 3 and 4, are adjusted along the arms 1 and 2, so as to properly position the rocker arm 8, in respect to the center of gravity of the mold 7. The rails 3 and 4, each take a bearing on the arms and thus do not rock. The rails are clamped to place by the clamps 5. The rocker arm is usually placed sufficiently inside the center of the machine of the Tabor patent that the joints between the mold carrying arms and the stops on the movable frame or member to which they are pivoted do not open up. The arms or bars 1 and 2, are then raised or otherwise adjusted by the handle 20, so as to properly position the leveling support for receiving the mold. The mold or perhaps more accurately cleats applied to the mold board, rest upon the ends of the rocker arm 8. In this way the weight of the flask is taken by the rocker arm 8. The wedges are then drawn in and they serve to steady and hold the flask in its true position and the load carried by them when thrown in will be accompanied by an equal distribution of load on the rocker arm. When the flask clamps are released there will be no shifting of the flask due to spring in any of the parts including the machine itself.

What I claim is:

30 1. A leveling support for molders' flasks comprising the combination of, bars, rails, spreaders or distance pieces flexibly connecting said rails to permit them to seat on the bars against rocking, wedges slidable along the rails, and means for sliding the wedges, substantially as described.

2. A leveling support for molders' flasks comprising the combination of, a flexible wedge-support adapted to yield in detail and seat itself against rocking, wedges slidable in respect to the wedge-support, and means for sliding the wedges, substantially as described.

3. A leveling support for molders' flasks

comprising the combination of, a rocker arm adapted to receive a flask, and wedges and their accessories for steadying and holding the flask.

4. A leveling support for molders' flasks comprising the combination of, rails, spreaders or distance pieces flexibly connecting the rails, a rocker arm pivotally mounted on the rails, wedges slidable along the rails, and means for throwing the wedges, substantially as described.

5. A leveling support for molders' flasks comprising the combination of, supporting bars, rails carried and individually supported by the bars, clamping devices for the rails and bars, spreaders flexibly connecting the rails, wedges movable along the rails, and means for moving the wedges, substantially as described.

6. A leveling support for molders' flasks comprising the combination of, supporting arms, rails carried and individually supported by the arms, a rocker arm carried by the rails, clamping devices for the rails and arms, spreaders flexibly connecting the rails, wedges movable along the rails, and means for moving the wedges, substantially as described.

7. A leveling support for molders' flasks comprising the combination of, supporting arms, means for raising and lowering the arms, rails individually supported by the arms, spreaders flexibly connecting the rails, a rocker arm carried by the rails, wedges movable along the rails, and means for shifting the wedges, substantially as described.

In testimony whereof I have hereunto signed my name.

WILFRED LEWIS.

Witnesses:

CLIFFORD K. CASSEL,
FRANK E. FRENCH.