

(No Model.)

A. MONTGOMERY.
ADJUSTING PIN FOR MOLDING FLASKS.

No. 475,088.

Patented May 17, 1892.

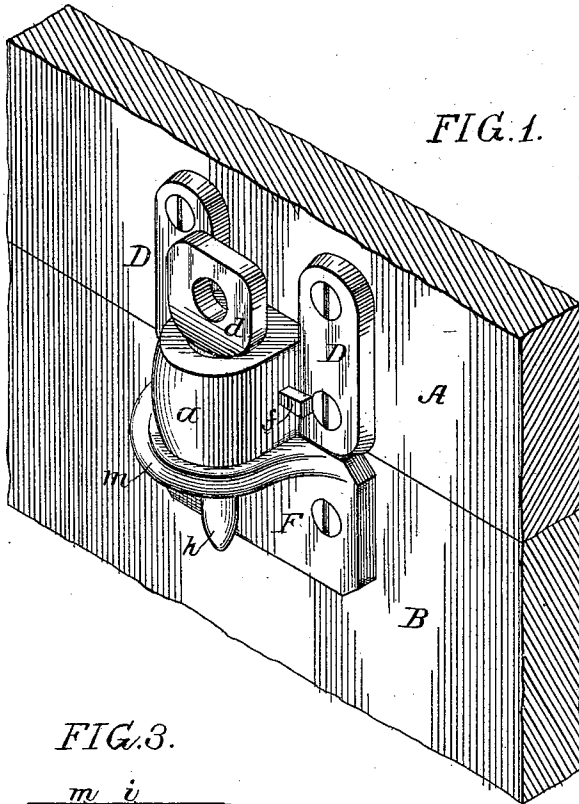


FIG. 1.

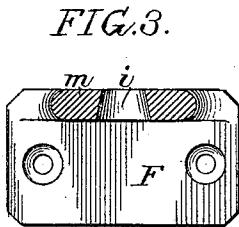


FIG. 3.

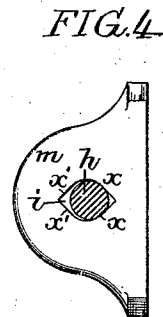


FIG. 4.

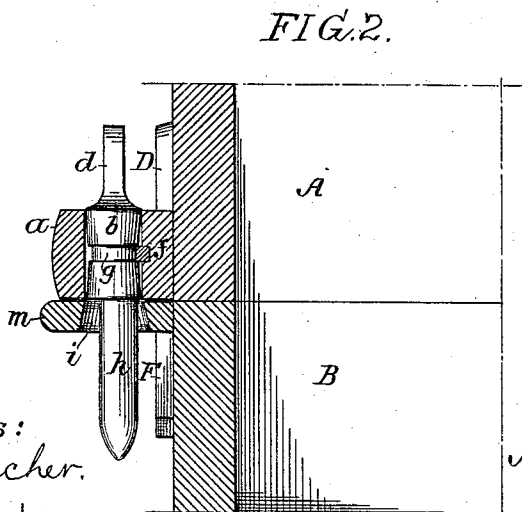


FIG. 2.

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UNITED STATES PATENT OFFICE.

ARCHIBALD MONTGOMERY, OF PHILADELPHIA, PENNSYLVANIA.

ADJUSTING-PIN FOR MOLDING-FLASKS.

SPECIFICATION forming part of Letters Patent No. 475,088, dated May 17, 1892.

Application filed November 20, 1891. Serial No. 412,554. (No model.)

To all whom it may concern:

Be it known that I, ARCHIBALD MONTGOMERY, a subject of the Queen of Great Britain and Ireland, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Adjusting-Pins for Molding-Flasks, of which the following is a specification.

One object of my invention is to so construct the pin and socket used in connection with the "cope" and "drag" of a molding-flask that said cope and drag may be accurately adjusted in respect to each other, a further object being to so construct the parts that the pin will properly enter or leave the socket, even if the cope happens to be tilted, as in "shaking out" after molding. These objects I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of parts of the cope and drag of a molding-flask, showing the application of my improved adjusting device thereto. Fig. 2 is a longitudinal section of part of the cope and drag of the flask with the adjusting device in position thereon. Fig. 3 is a front view, partly in section, of the socket-plate; and Fig. 4 is a plan view of said socket-plate with the pin in section.

A represents part of the cope, and B part of the drag of a molding-flask of the usual construction. To the cope is secured a bracket D, having a projecting boss *a*, in which is a vertical opening for the reception of the upper portion *b* of the adjusting-pin, which fits within the opening in the boss *a*, but can be turned therein by manipulating the head *c* of the pin, vertical movement of said pin in the boss, however, being prevented by means of a transverse key *f*, which passes through openings in the boss and engages with a circumferential groove *g*, formed in the upper portion of the pin, as shown in Fig. 2, the openings and groove being, by preference, square or flat-bottomed, so that an ordinary nail will serve as a key. The lower portion *h* of the pin is eccentric in respect to the upper portion and enters an opening *i* in the socket-plate *m*, which projects from a bracket F, secured to the drag B of the flask, this opening being beveled or flared from top to bottom, as shown in Figs. 2 and 3, so that the pin

will properly enter or leave the opening even if the cope is not held in a horizontal position, so that the raising or lowering of one end of the cope in advance of the other or the tilting of the cope, as in shaking out the sand after molding, will not cause the pin to bind in the socket or prevent it from entering the socket. The opening *i* in the socket-plate *m* is of the double-V form illustrated in Fig. 4, so that the pin *h* bears upon the walls of said opening either at the points *x x* or at the points *x' x'*, there being always two points of contact and a firm bearing of the pin against the walls of the opening.

Owing to the fact that the portion *h* of the pin which enters the opening *i* of the socket-plate is eccentric in respect to the upper portion of the pin which turns in the boss *a*, rotative movement of the pin in said boss will cause longitudinal or lateral movement of the cope or drag of the flask relatively to each other, so that by a proper adjustment of the pin the cope and drag may be caused to accurately register one with the other, as required.

Other means than the brackets D and F may be used to secure the boss and socket-plate to the cope and drag of the flask, if desired; but said brackets are preferred.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The within-described adjusting device for molding-flasks, said device comprising a pin having one portion eccentric in respect to the other, a boss in which one portion of the pin is free to turn, and a socket-plate having an opening for the reception of the other portion of the pin, substantially as specified.

2. The within-described adjusting device for molding-flasks, said device consisting of a pin having one portion eccentric in respect to the other, a boss in which one portion of the pin is free to turn, a socket-plate having an opening for the reception of the other portion of the pin, and brackets whereby said socket-plate and boss may be secured to the drag and the cope of the flask, substantially as specified.

3. The within-described adjusting device for molding-flasks, said device comprising a pin having one portion eccentric in respect to

the other, a boss in which one portion of the pin is free to turn, a socket-plate having an opening for the reception of the other portion of the pin, and a transverse key passing
5 through the boss and engaging with a groove in that portion of the pin which turns in said boss, so as to confine the pin vertically thereto, substantially as specified.

4. The within-described adjusting device
10 for molding-flasks, said device comprising a pin, a boss adapted for the reception of one portion of said pin, and a socket-plate having an opening beveled or flared from top to bottom in all parts and adapted for the recep-
15 tion of the other portion of the pin, substantially as specified.

5. The within-described adjusting device for molding-flasks, said device comprising a pin having one portion eccentric in respect to the other, a boss in which one portion of said
20 pin is free to turn, and a socket-plate having a double-V shaped opening for the reception of the other portion of the pin, substantially as specified.

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

ARCHIBALD MONTGOMERY.

Witnesses:

EUGENE ELTERICH,
HARRY SMITH.