No. 763,465. PATENTED JUNE 28, 1904.

E. J. COCHRAN.

FLASK FOR FOUNDRIES.

APPLICATION FILED AUG. 8, 1903.

NO MODEL.

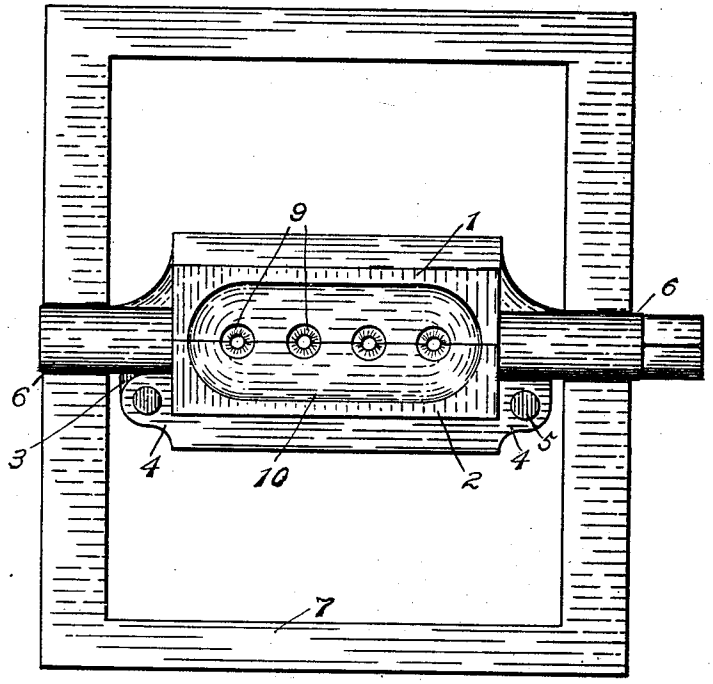


Fig. 1.

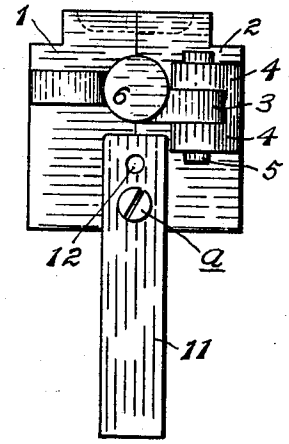


Fig. 3.

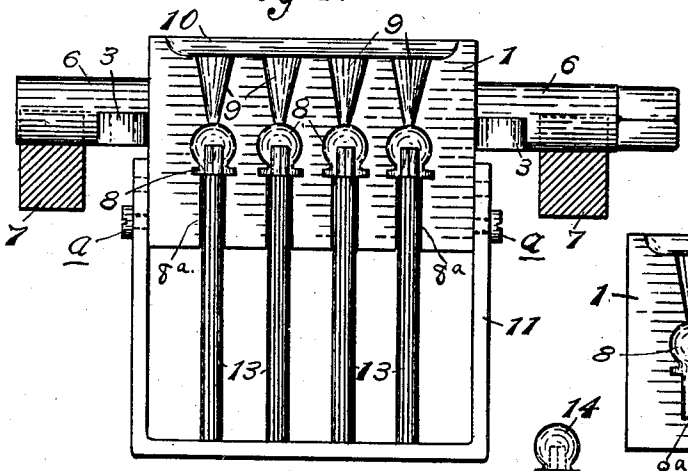


Fig. 2.

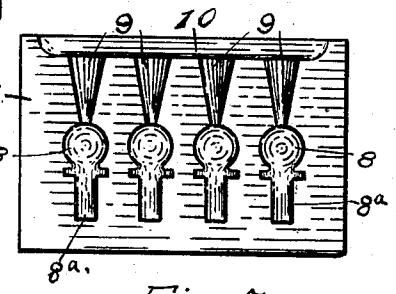


Fig. 5.



Fig. 4.



Fig. 6.

WITNESSES:

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No. 763,465. Patented June 28, 1904.

UNITED STATES PATENT OFFICE.

EDWARD J. COCHRAN, OF STERLING, ILLINOIS.

FLASK FOR FOUNDRIES.

SPECIFICATION forming part of Letters Patent No. 763,465, dated June 28, 1904.

Application filed August 8, 1903. Serial No. 168,697. (No model.)

To all whom it may concern:

Be it known that I, EDWARD JAMES COCHRAN, a citizen of the United States, residing at Sterling, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Flasks for Foundries; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has reference to foundry flasks or molds, and relates more particularly to devices of that class for casting heads on the pintles of door-hinges, the chief features and advantages of which will be more fully set forth in the following specification.

In the manufacture of hinges the pintles are in some cases constructed of steel or other metal possessing similar qualities capable of enduring the strain which comes upon this part of the hinge. The heads are then cast thereon, being formed of a softer metal.

In the drawings, Figure 1 is a plan view of my device. Fig. 2 is a front elevation thereof with one of the halves of the flask removed. Fig. 3 is an end elevation of my device. Fig. 4 shows a pintle such as is used in hinges with a head formed thereon. Fig. 5 is a detail similar to Fig. 2, showing a modified form of mold. Fig. 6 shows a metal ornament for hinges cast in the mold shown in Fig. 5.

Similar numbers and letters refer to similar parts throughout the several views.

The flask consists, primarily, of two metal parts 1 and 2, the part 1 being provided with perforated ears 3 3 and the part 2 with two pair of perforated projections 4 4. By means of pins 5 such ears and projections are detachably secured together and the inner faces of the parts 1 and 2 held in contact. Projected from the ends of the part 1 are trunnions 6, suitably supported on a frame 7, so as to permit the flask to be inverted.

Referring to Fig. 2, the numerals 8 represent a series of molds of suitable form having circular openings 8^a, extending to the lower face of the part 1. By means of funnel-shaped channels 9 the several molds communicate with a depression 10 in the upper face of the flask. The part 2 is similarly provided with molds 8, openings 8^a, channels 9, and depression 10, which severally correspond with the like parts in the part 1 and complete the mold. Secured at the ends of the part 1 by screws *a a* is a swinging **U**-shaped frame 11, upon which the pintles are supported while the operation of casting the heads thereon is proceeding. By means of two or more holes 12 in the legs of the frame 11 such frame is capable of vertical adjustment to accommodate pintles of different lengths.

In Fig. 4 is shown a pintle 13, upon which has been cast the head 14 in the manner herein described.

Fig. 5 illustrates one half of a flask, in which the lower ends of the openings 8^a are closed. By this construction are produced the ornamental knobs 15, Fig. 5, which are inserted in the lower end of the hinge at the end of the pintle in inverted position to complete the hinge.

In operation the flask is inverted with the parts secured together and the frame 11 turned to one side. The pintles 13 are then inserted into the openings 8^a to a point a little beyond the position they occupy while the heads are being cast thereon. The frame 11 is then returned to its former position, the supporting part thereof being just above the ends of the pintles. The flask is then turned to its original position, as in Fig. 2, the pintles dropping downwardly until they rest upon the support 11. The ends of the pintles then project a desired distance into the molds 8. While in this position the molten metal is poured into the depression in the top of the flask until the molds 8 are filled, after which the flask is again inverted to dump the surplus metal in the top thereof. The parts 1 and 2 are then unfastened at one side, the part 2 swung open on the other fastening, and the pintles removed.

In casting a head upon a metal pintle as has been herein set forth any moisture upon

the end of the pintle is likely to cause the hot metal which comes in contact therewith to "blow," resulting in a defective head. This is especially likely to occur where the casting is done in sand after the old method, as the sand itself must necessarily be damp, which dampness is imparted to the end of the pintle projected therein. In my device this condition does not exist, and, if desired, the flask itself can be moderately heated after the insertion of the pintles, removing any possible moisture which might be thereon.

Any desired number of sets of the castings can be successively produced by the use of the mold, the artificial heating of the flask being necessary before the casting of the first set only.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The combination in a flask for the purpose specified, of the parts 1, and 2, removably secured to one another, molds, 8, centrally of said flasks, passages 8^a, communicating therewith, an integral U-shaped frame having its legs formed with a plurality of holes, and screws passing through said holes and engaging in said flask whereby said frame is hingeably and adjustably secured with respect to said flask.

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

EDWARD J. COCHRAN.

Witnesses:

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