

(No Model.)

J. MEIR.

APPARATUS FOR MOLDING ARTICLES OF EARTHENWARE.

No. 514,373.

Patented Feb. 6, 1894.

Fig. 1.

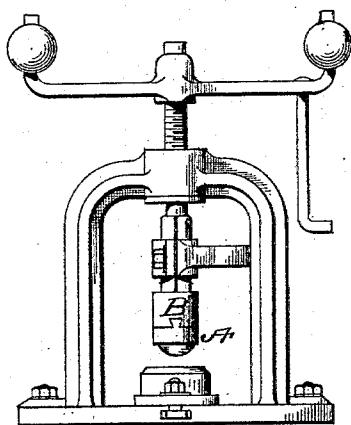


Fig. 2.

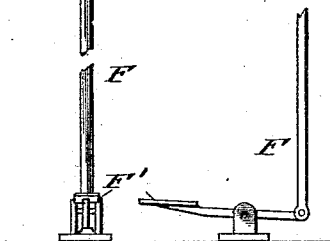
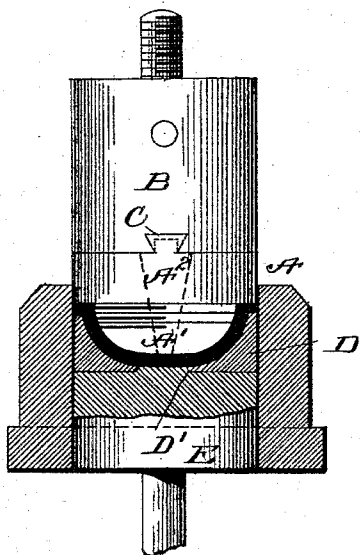


Fig. 3.

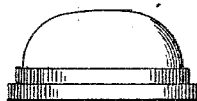


Fig. 4.

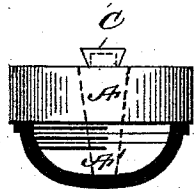


Fig. 5.

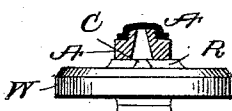


Fig. 6.



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APPARATUS FOR MOLDING ARTICLES OF EARTHENWARE.

SPECIFICATION forming part of Letters Patent No. 514,373, dated February 6, 1894.

Application filed February 20, 1893. Serial No. 463,082. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MEIR, a subject of the Queen of Great Britain and Ireland, and a resident of Burslem, in the county of Stafford, England, have invented certain new and useful Improvements in Apparatus for Molding Articles of Earthenware, of which the following is a specification.

My improvements refer to the formation of earthenware electric switches, ceiling roses and the like in a simpler and more expeditious manner than heretofore and to machinery or apparatus therefor.

In carrying out my invention I first of all form blanks or blocks of the desired article, molded in plaster molds or "jollied" approximately to the size required and semi-dried. The blanks or blocks are then introduced into a fly press fitted with specially formed dies, as hereinafter more particularly described, for pressing the article to its final form and forming the screw thread thereon, and in order to remove the article so pressed into shape I provide convenience for the ready removal and transference of the dies from the fly press to a "whirler" when the molded switch is removed from the die by whirling said die. And in order that my invention may be more readily understood and carried into practical effect I have hereunto annexed a sheet of drawings illustrative of my improvements and will now proceed to describe the same with the assistance of the various letters of reference marked thereon.

Figure 1 is a general view of a fly press shown fitted with my improved molding dies suitable for molding the covers of electric switches. Fig. 2 is a vertical section of my improved molding dies and molding box as used by me in the formation of electric switch covers. Fig. 3, represents an outside elevation of a complete electric switch covering as made by my improved apparatus. Fig. 4, is a detail view of the upper die and a switch cover as the same appear upon removal from the mold. Fig. 5 is an elevation of a whirler with the die and switch cover thereon preparatory to removing said cover from the die by whirling. Fig. 6, is an elevation of a vent plug for the upper die.

I will describe my invention as applied to the formation of an electric switch cover for

which the dies are prepared as in Fig. 2 where A is the upper die (seen separately in Fig. 4) attached to the plunger B of the fly press by means of a dovetail sliding joint C, so constructed that when the plunger B is raised the die A can be readily detached from the plunger B by the simple act of drawing it forward. The die is screwed at A' and corresponds with the form it is desired to give to the inside of the switch cover.

D is the lower die resting upon the block E operated by the rod F and foot lever F', but it must be understood that in the formation of the switch cover the block E is not operated, but forms simply a rest or support for the bottom die D. In the formation of the switch cover it will be understood that the die A is raised out of the mold as seen in Fig. 1. The blank prepared as hereinbefore described and which should have an excess of substance as is well understood by potters is then introduced on to or into the lower die D and the plunger being brought down the plastic or semi-plastic clay is molded or shaped into the form illustrated by the solid shading in Fig. 2 and particularly the screw thread A' is well and truly formed therein. The fly press is now released and the plunger B rises bringing with it the newly formed cover which is now attached to the upper die A by the screw thread formed in it and to facilitate this the bottom die D is formed with a vent D' filled in during the molding operation by the substance of the block E so that in withdrawing the molded cover the lower die D is either left in the molding box or is very readily detached as the plunger rises. On the plunger B reaching the upper part of its stroke and the molded cover being now well clear of the molding box (as seen in Fig. 1) I remove the upper die A by drawing it forward as hereinbefore described and thus I have the upper die detached with the molded cover thereon as seen in Fig. 4. I now transfer the die A and molded cover to a whirler W (see Fig. 5) inverting it and in the act of so doing the taper plug A² (seen dotted in Fig. 2 and separately in Fig. 6) falls out and allows free access of air between the head of the die and the molded cover.

The whirler is constructed with a recess R which approximately fits the dovetail C and

acts as a key to rotate the die A. I now set in motion the whirler and carefully grip the molded cover and I have found that by this means I can safely and expeditiously remove it without injuring the screw thread formed therein, the cover remaining stationary firmly grasped by the hand of the operator, the release of said cover being effected by the rotation or whirling of the whirler.

10 Although I have described a "whirler" as a convenient form of instrument by which to unscrew the pressed work it will be obvious that any form of rotating table or disk with sufficient mass to obtain the required momentum would act in the same manner or the
15 table might be driven by mechanical means instead of being set "whirling" by hand.

Although I have described my invention as applied to the formation of electric switch

covers it will be readily understood that other articles and shapes could be made by varying the dies accordingly.

Having thus particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I
25 declare that what I claim is—

In apparatus for forming screw threaded earthenware, the combination with a molding box, of a lower die D therein, a plunger B, a detachable upper die A, and a movable
30 plug A², substantially as described.

In testimony whereof I have hereunto affixed my signature to the foregoing specification.

JOSEPH MEIR.

Witnesses:

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RUSSELL W. HARTLEY.