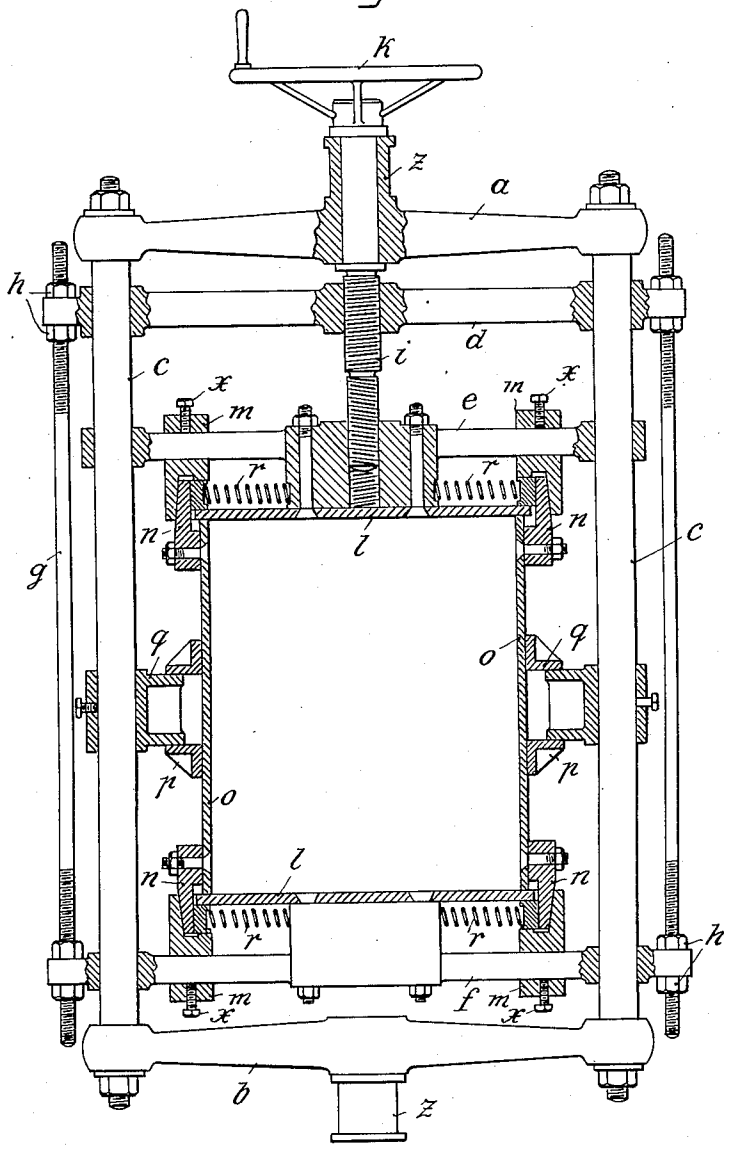
Dec. 26, 1933. H. ACKERMANN 1,941,379

MOLD FOR ARTIFICIAL STONES

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Fig. 1.



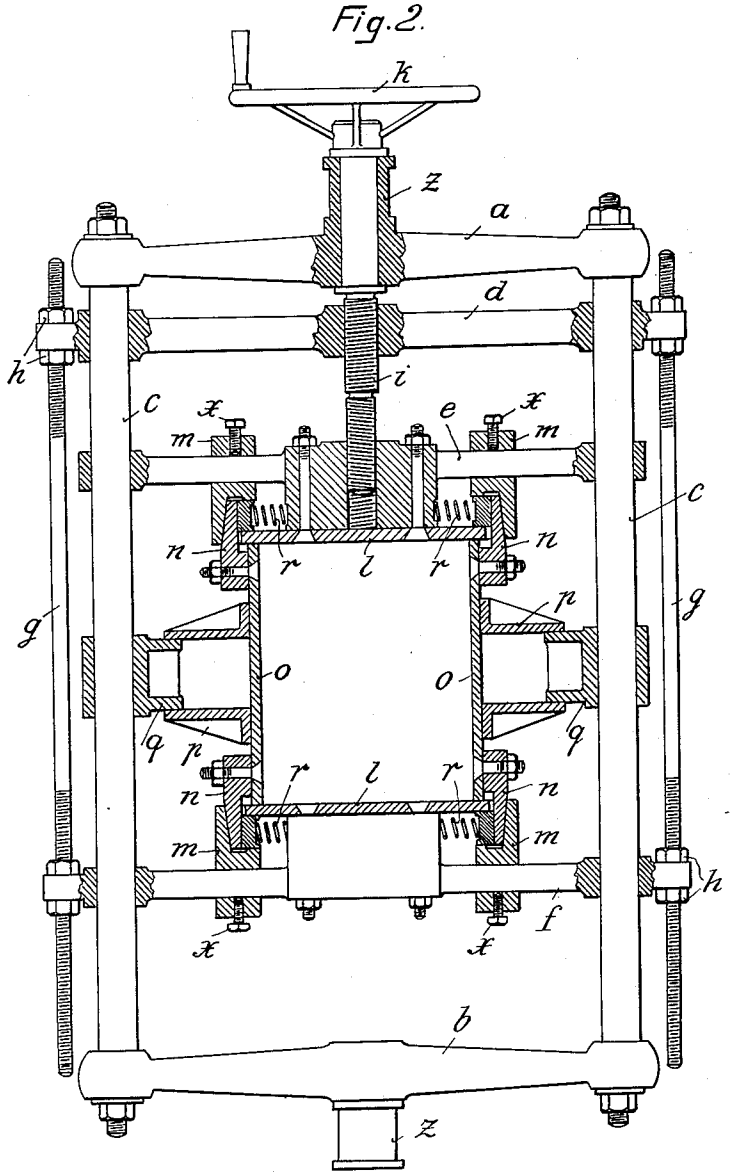
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Fig. 2.



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MOLD FOR ARTIFICIAL STONES

Hugo Ackermann, Godesberg-on-the-Rhine, Germany

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2 Claims. (Cl. 25—41)

My present invention relates to a molding device suitable for making artificial stones and provided with an appliance intended for adjusting the distance of the parts of mold walls so that the adjusting appliance permits of a modification of the size of the molding space, on one hand, and of the molding walls being detached from the object molded, on the other hand.

The principal object of the invention is that all parts of the mold, consisting only of four walls and having means adapted to displace the walls of the mold in opposite directions are arranged inside a rectangular rigid frame which can be lifted and turned by means of trunnions.

A further object of the invention is to arrange all parts of the molding device in the rigid frame in such manner that in each direction to the top and the bottom the space between the four walls of the mold remains wholly free. In this case one side of the molding openings may be deposited during the forming process on an auxiliary bottom plate and after working the mold may be lifted and swung out together with this auxiliary bottom plate and the object molded may be deposited on another auxiliary bottom plate for drying.

A further object of the invention consists in that the displacement of one pair of walls of the mold simultaneously in opposite directions causes a corresponding displacement of the other pair of walls so that the walls being displaced by pairs parallel to each other and therefore a favorable detachment from the object molded can be arrived.

Referring to the accompanying drawings:

Fig. 1 is a plan view of the mold in the closed condition partly in section.

Fig. 2 is a plan view of the same molding device also in the closed condition and partly in section but arranged for tamping artificial stones of smaller size.

The rectangular rigid frame consists of the heads *a* and *b* and both parallel sides *c* which are round rods, preferably. With the designs according to Figs. 1 and 2 three cross beams *d*, *e*, *f* slide on the parallel sides *c*. On the inner face of the outside cross beam *f* and on the face to the latter opposed of the central cross beam *e* the end walls *l* of the tamping mold are fixed removably. The outside cross beam *f* is yoke-like coupled with the free outside cross beam *d* by means of connecting rods *g*, *g*. At their ends the connecting rods *g* are threaded and provided with nuts *h*, *h*. By these nuts *h* being displaced the distance of the outside cross beams and thus also of the cross beams *f* and *e* carrying both end walls *l*, *l* can be modified. In this way the distance of the end walls *l* can be adapted to the length given of the object to be molded in a simple and safe manner.

In the instance of execution of the displacing appliance of the tamping mold as shown in Figs. 1 and 2 the opposite movement of the end walls intended for detaching the same from the object molded is e. g. accomplished by a screw *i* with left and right-handed threads. The screw *i* is pivotally but not slidably mounted on the head *a* of the carrying frame arranged by the side of the free outside cross beam *d*. It is provided with a thick right-handed thread and further with a thinner left-handed thread. These threads are in engagement with female threads of corresponding sizes which are provided for in the free outside cross beam *d* and in the central cross beam *e* respectively. When the screw is being turned by means of a hand wheel *k* the cross beams *d* and *e* and, on account of the outside cross beams *d* and *f* being coupled with each other, also the cross beams *e* and *f* carrying the end walls *l* are displaced in opposite directions. In the design shown the left-hand rotation of the screw *i* withdraws the end walls from each other whereas by the right-hand rotation of the screw *i* the mold is being closed again.

The very point of importance of the invention consists in that all parts of the mold are arranged within the rectangular rigid frame *a*, *b*, *c* in such manner that in each direction the space between the four walls *l*, *l*, *o*, *o* of the mold remains wholly free, the frame being easily movable together with the mold and its displacing appliance for instance by being suspended on a carrier by means of the trunnions *z* with which the heads *a* and *b* of the frame are provided.

The design of the displacing appliance is not essential to the execution of the invention itself. The very point of importance consists in that the carrying frame of the mold is provided with a gear suitable for producing a movement in opposite directions of the cross beams *e* and *f* carrying the end walls *l*, by aid of a third cross beam *d* added.

In order that the displacement in opposite directions of the cross beams *e* and *f* carrying the end walls *l* may also cause a movement in opposite directions of the side walls *o*, the cross beams *e* and *f* are provided with two wedges *m* with internal taper which wedges are slidable on the beams referred to and to be fixed by clamping screws *x*. The distance of both wedges *m* fas-

tened to a cross beam depends on the clearance of the side walls *o, o* of the mold in turn determined by the width desired of the object to be molded. Against the tapered surfaces of the wedges *m* there are pressed from within by the springs *r, r* having an initial tension the wedges *n, n* fastened to either side of the side walls *o* of the mold the pressure acting on their outside taper. The side walls *o* are guided by guides *q* fastened to the sides *c* of the carrying frame.

When the mold is being opened the cross beams *e* and *f* with the end walls *l, l* and the wedges *m, m* fastened to them are displaced outwards in opposite directions by the lateral gear of the displacing appliance being actuated and so cause the wedges *m* and *n* to slide on each other while the springs *r* press the wedges *n, n* with the side walls *o, o* fastened to outwards as much as the clearance of the wedge surfaces permits.

When the mold is being closed the wedges *m* press the wedges *n* with the side walls attached inwards against the pressure of the springs *r* until the size set of the molding space has been restored.

Having thus described my invention, what I claim is—

1. A molding device for tamping artificial stones, comprising a rectangular rigid frame having trunnions adapted to lift and turn the said frame, a pair of mold end-walls-supporting cross beams slidably mounted on the side members of said frame, a mold composed of a pair of side walls slidably supported by the side members of said frame and a pair of end walls respectively mounted on and supported by said cross-beams respectively to move therewith, a third cross-beam slidably mounted on said side members, means connecting said third cross-beam and the most distant cross-beam of said pair to cause them to move together in the same direction, and means engaging said third cross-beam and the most adjacent cross-beam of said pair to cause them to move simultaneously in opposite directions.

2. A molding device for tamping artificial stones, comprising a rectangular rigid frame having trunnions adapted to lift and turn the said frame, a pair of mold end walls supporting cross beams slidably mounted on the side members of said frame, a mold composed of a pair of side walls slidably supported by the side members of said frame and a pair of end walls respectively mounted on and supported by said cross-beams respectively to move therewith, wedge members respectively mounted on the outer end portions of the respective side walls and having outer oppositely presented tapering surfaces, pairs of wedge blocks adjustably mounted on the said respective cross-beams and having tapering surfaces so positioned as to respectively engage and cooperate with the corresponding tapering surfaces of said wedge members, springs respectively pressing said wedge members toward the respective cooperating wedge blocks, a third cross-beam slidably mounted on said side members, means connecting said third cross-beam and the most distant cross-beam of said pair to cause them to move together in the same direction, and means engaging said third cross-beam and the most adjacent cross-beam of said pair to cause them to move simultaneously in opposite directions.

HUGO ACKERMANN.