No. 724,771. PATENTED APR. 7, 1903.

V. ALEXA.

SOAP MOLD.

APPLICATION FILED JUNE 26, 1902.

NO MODEL.

FIG. 1.

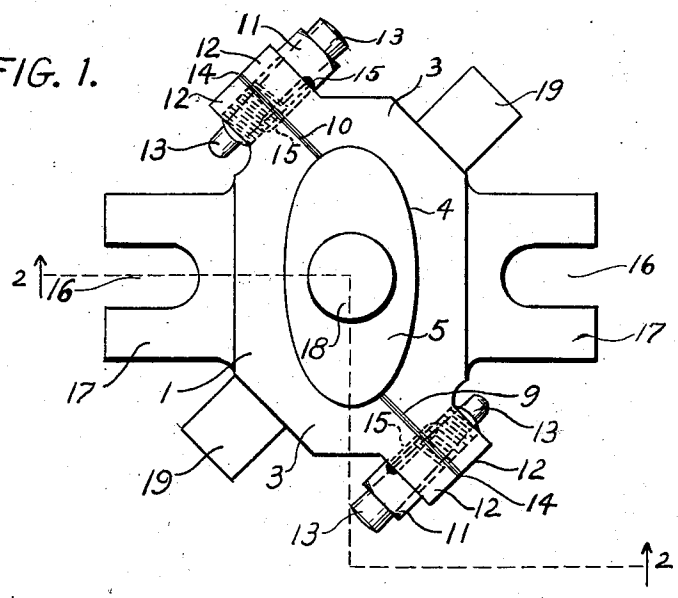
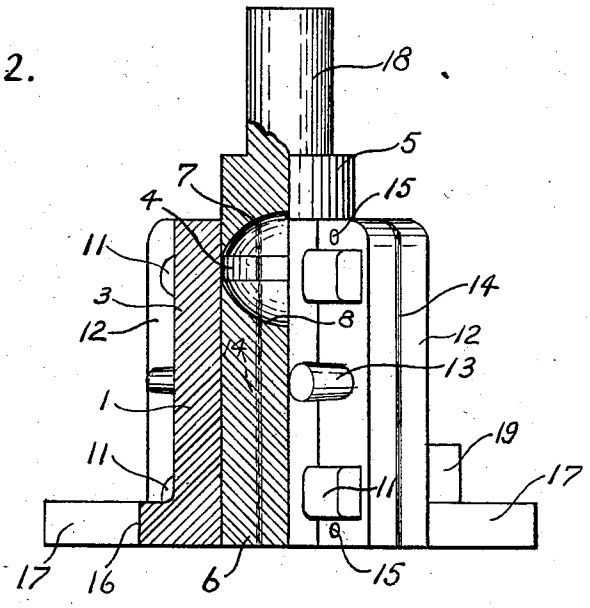


FIG. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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SOAP-MOLD.

SPECIFICATION forming part of Letters Patent No. 724,771, dated April 7, 1903.

Application filed June 26, 1902. Serial No. 113,358. (No model.)

To all whom it may concern:

Be it known that I, VICTOR ALEXA, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Soap-Molds, of which the following is a specification.

The main object of my invention is to provide an improved form of soap-mold provided with improved means for adjusting same to compensate for wear between the moving parts. I accomplish this object by the device shown in the accompanying drawings, in which—

Figure 1 is a top plan of a soap-mold constructed according to my invention. Fig. 2 is a side elevation, partly broken away, on the line 2 2 of Fig. 1.

The device shown is a mold adapted to press soap into oval bars. The box or body part 1 of the mold is constructed of two parts 3, fitted together, as will be hereinafter described. A vertically-disposed cavity 4 of uniform transverse cross-section extends entirely through the body part 1. A pair of opposed dies 5 and 6 fit within the cavity 4 and are longitudinally slidable therein. The opposed surfaces 7 and 8 of the dies 5 and 6 are suitably formed to give the desired shape to the bar of soap. In a device of this class it is important that the dies fit perfectly in the box or body part of the mold; otherwise the soap would ooze out at the sides of the dies and prevent the proper pressure from being applied.

To prevent the mold from becoming useless after a slight wear, I make the body part of the mold in two pieces which are separable along the planes 9 and 10, securing the two parts together by means of the bolts 11, which are seated in holes drilled onto one of the parts 3 and tapped into the other, the parts 3 being provided with flanges 12 for receiving said bolts. Exact alinement between the parts 3 of the body of the mold is assured by means of the conical pins 13, which are seated in conical apertures in the flanges 12 and serve to wedge the parts 3 into more perfect alinement than could be obtained by simply tightening the bolts 11. The opposed surfaces of the flanges 12 are carefully finished and separated by a plurality of thin sheets of metal 14, which serve as removable separators. One of the flanges 12 at each of the dividing-lines is provided with a pair of projecting pins 15. Each of the sheets 14 is provided with apertures suitably located to receive the bolts 11, the wedge 13, and the pins 15. When the cross-section of the mold-cavity is oval, as in the device shown, it is preferable to divide the body 1 along planes making an angle of about forty-five degrees with the axes of said cross-section and to locate such planes of division at points where they will be normal to the curvature of such cross-section. Such division, as will be seen in Fig. 1, provides for adjustment of said cross-section both in regard to length and breadth.

Since the mechanism by means of which the various parts of the mold are operated does not form a part of my invention, the same is not shown in the drawings. The body part 1 of the mold is provided with lugs 17, having slots 16 for the bolts whereby said body part may be secured to a bed-plate in the operating mechanism. The upper die 5 is provided with a shank 18 for securing same to a suitable cross-head in the operating mechanism. The die 6 is seated within the cavity 4 and normally rests upon the bed-plate, which supports the body part 1.

The operation of the device shown is as follows: The die 5 is moved upward free from the body part, and soap sufficient in quantity to form the bar is placed within the cavity 4 above the die 6. The die 5 is now forced downward under pressure, and a cake of soap is formed to conform with the surfaces 7 and 8. Fig. 2 shows the dies 4 and 5 in the relative positions occupied at this stage of the operation. The die 5 is now drawn upward out of the way, and the die 6 is raised sufficiently to lift the finished bar of soap out of the body part, so that the soap may be readily removed from the mold. It is to insure perfect fit and to provide suitable means for adjusting the body of the mold to compensate for wear caused by friction between the dies and said body that I have provided the thin separators between the flanges 12 of the parts 3. As soon as the wear of said parts has become sufficient to permit a noticeable oozing

of soap between the dies and the surrounding walls the parts 3 are separated and one thickness of the separating material is removed from between each pair of flanges. When the parts are again connected together, they will be drawn more closely toward each other, and since the planes 9 and 10 are at an angle both to the length and width of a cross-section of the cavity 4 the dimensions of said cross-section will have been reduced in all directions.

When the parts are being assembled, the sheets 14 are placed with their principal apertures in engagement with the pins 15 and thus held in their proper relative position while the remaining parts of the device are being connected. It is preferable that the sheets 14 be made of material having exactly the same hardness as the parts 3 of the body 1 to insure uniform wear and prevent the possibility of ridges or depressions forming in the dies along the line of their engagement with the edges of the sheets 14. The projecting lugs 19 are provided to prevent the necessity of hammering upon other parts of the body to release same in case the die 5 sticks therein, as often happens in molds of this class.

It will be seen that numerous details of the device shown may be altered without departing from the spirit of my invention. I therefore do not confine myself to such details, except as hereinafter limited in the claims.

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

1. A soap-mold comprising a hollow body having an interior cavity of uniform transverse cross-section; a pair of dies having substantially the same cross-section as said cavity and longitudinally slidable therein, said body consisting of a plurality of parts separable along longitudinal planes; sections separating said parts and adapted to be removed to adjust said parts toward each other, said sections having their inner edges flush with the walls of said cavity and forming part of the molding-surface; and means for securing said parts together; said planes of separation being suitably arranged to provide for adjustment in all directions transverse to said planes.

2. A soap-mold comprising a hollow body having an interior cavity of uniform transverse cross-section; a pair of dies having substantially the same cross-section as said cavity and longitudinally slidable therein, said body consisting of a plurality of parts separable along longitudinal planes; sections separating said parts and adapted to be removed to adjust said parts toward each other, said sections having their inner edges flush with the walls of said cavity and forming part of the molding-surface; a plurality of bolts for securing said parts together; and wedge-shaped pins extending transversely of the planes of separation for insuring the relative alinement of said parts.

3. A soap-mold comprising a hollow body having an interior cavity of uniform transverse cross-section; a pair of dies having substantially the same cross-section as said cavity and longitudinally slidable therein, said body consisting of a plurality of parts separable along longitudinal planes; sections separating said parts and adapted to be removed to adjust said parts toward each other; a plurality of bolts for securing said parts together and a conical wedge extending transversely to each of the planes of separation between said parts and adapted to insure the relative alinement of said parts.

4. A soap-mold comprising a hollow body having an interior cavity of uniform transverse cross-section; a pair of dies having substantially the same cross-section as said cavity and longitudinally slidable therein, said body consisting of a plurality of parts separable along longitudinal planes; sections separating said parts and adapted to be removed to adjust said parts toward each other; suitable pins secured to one of said parts at each plane of separation and adapted to aline said removable sections in position, while said parts are being assembled; and means for securing said parts together.

5. A soap-mold comprising a hollow body having an interior cavity of uniform oval transverse cross-section, a pair of dies having the same cross-section as said cavity and longitudinally slidable therein; said body consisting of two parts separable along longitudinal planes extending normal to the curvature of said cavity and substantially at forty-five degrees with the major axis of said cross-section; suitable removable sections for separating said parts and suitable means for drawing said parts toward each other, substantially as and for the purpose set forth.

6. A soap-mold comprising a hollow body having an interior cavity of uniform transverse cross-section; a pair of dies having substantially the same cross-section as said cavity and longitudinally slidable therein, said body consisting of a plurality of parts separable along longitudinal planes; sections interposed between said parts having their edges flush with the walls of said cavity and being of substantially the same material and hardness as said parts, substantially as and for the purpose specified.

Signed at Chicago this 14th day of June, 1902.

VICTOR ALEXA.

Witnesses:
A. NOBACH, Jr.,
WM. R. RUMMLER.