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[56]

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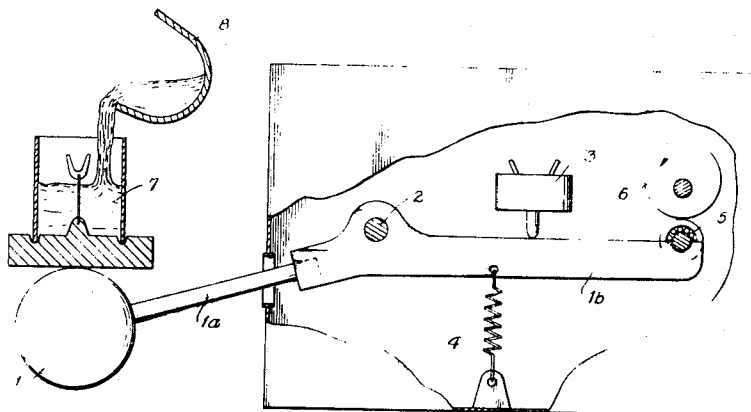
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[54] APPARATUS FOR FILLING DENTAL MOLD FLASKS

3 Claims, 1 Drawing Fig.

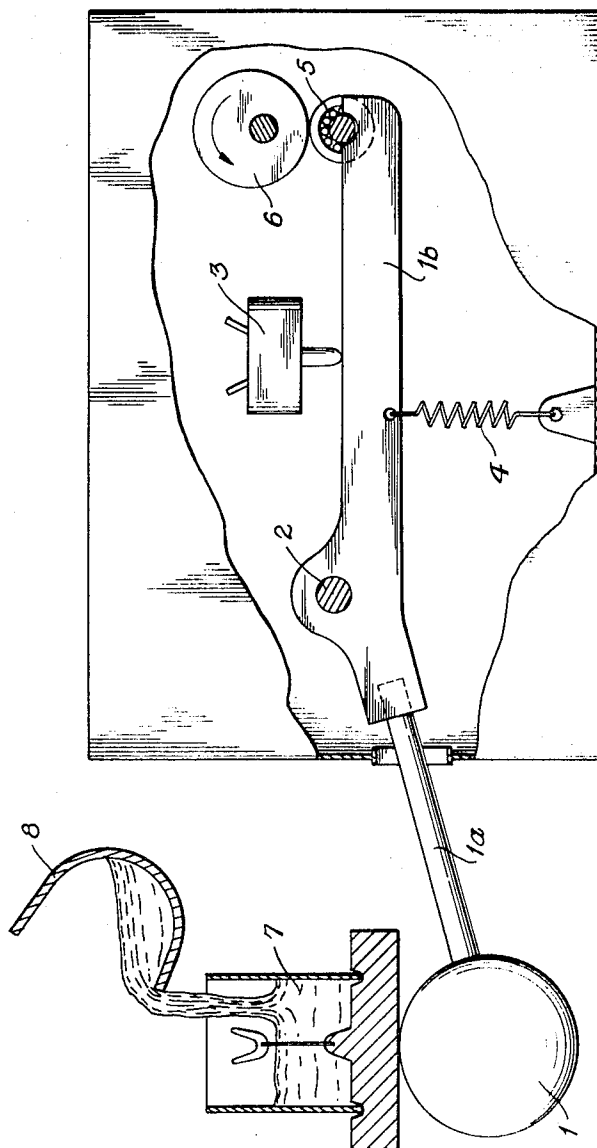
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ABSTRACT: A device to vibrate dental mold flask as the investment material is being placed in the flask to form the mold in which the operator may have both hands free to manipulate the flask and the container in which the investment material was mixed. The vibrating device being activated by placing the mold on the device which includes a lever to be vibrated by a cam.



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APPARATUS FOR FILLING DENTAL MOLD FLASKS

This invention relates to an apparatus for the manufacture of mold in the fine-casting technique and especially in the lost-wax dental technique. In the production of cast metal work for the use in dentistry, the cast wax model is usually arranged in a container or flask and this model is then surrounded with a plasterlike casting investment material which, after it has hardened, and after the wax has been removed, is used as the molding form for the final cast model.

The various steps that have to be accomplished include in this instance, a mixing of the mass of investment material, a subsequent casting of this material into the container in which the wax model of the piece to be cast is supported and the container or flask must be vibrated during the filling process by a vibrating mechanism which guarantees a better distribution of the mass within the flask, which with the investment material makes up the mold and prevents the danger of air bubbles.

The object of this invention is to produce an apparatus which makes it possible to accomplish the filling-in process in a short period of time and without any difficulties. In accordance with this invention, a shaking or vibrating mechanism is used which turns on automatically when the container is placed upon it. The person performing this process has therefore both hands free for the most important operation of filling the casting mold. Any manual actuation of switches or the like is not necessary.

Similar working processes can also be accomplished in the technique of casting fine jewelry.

The means by which the objects of this invention are obtained are described more fully with respect to the accompanying drawing which is a schematic cross-sectional view through the apparatus.

This apparatus consists of a ball 1 which is attached on the end of a lever 1a that carries it. Said lever can be oscillated around the axis 2 as a fulcrum. The arm 1b of the lever which lies opposite the ball 1 makes actuation of a switch 3 possible, which in turn, actuates the drive motor of the vibrating mechanism. This motor is not shown in the drawing. The lever arm 1b, when in its rest position, is held in place by a tension spring 4. The vibrating of the lever is caused by an eccentric

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disk 6, which is driven by the motor, not shown. This eccentric disk 6 acts on a roller bearing 5, so that, for practical purposes, no forces of friction can arise between the eccentric disk and the lever which is vibrated by rotation of said eccentric disk. The apparatus as shown in the drawing, is used by the person operating it by pressing the flask 7, including the wax model on the ball 1 so that the flask is supported by said ball. The operator then exerts a pressure on the ball 1 by moving flask 7 downwardly. The drive motor is turned on by the switch 3 and the vibration process is started at the same time so that the operator using this apparatus can take one hand to pour the investment material from a container 8 into the container or flask 7, while the process of vibrating is still going on. After this process of filling has been accomplished, the container 7 is lifted from the ball 1, whereupon the arm 1b of the lever moves back into its rest position under the influence of the tension spring 4 and the motor is automatically switched off by means of the switch 3.

With the apparatus of the present invention, the person operating this apparatus can accomplish the process of filling the flask with the mass of investment material without it being necessary to actuate any switches for the accomplishment of the process of vibration.

Having now described the means by which the objects of this invention are obtained,

I claim:

1. An apparatus for vibrating the flask in making a mold, said apparatus comprising a ball element, means to vibrate said ball and switch means activated by downward pressure on said ball to actuate said means to vibrate said ball, whereby when said ball is pressed downwardly by a flask, the flask will be vibrated.

2. The apparatus of claim 1 in which said ball is mounted on a lever, and said switch means is operated by movement of said lever.

3. The apparatus of claim 2 in which said lever is provided with a roller bearing which is moved by movement of said lever into a position for engagement with said means to vibrate said ball.

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