

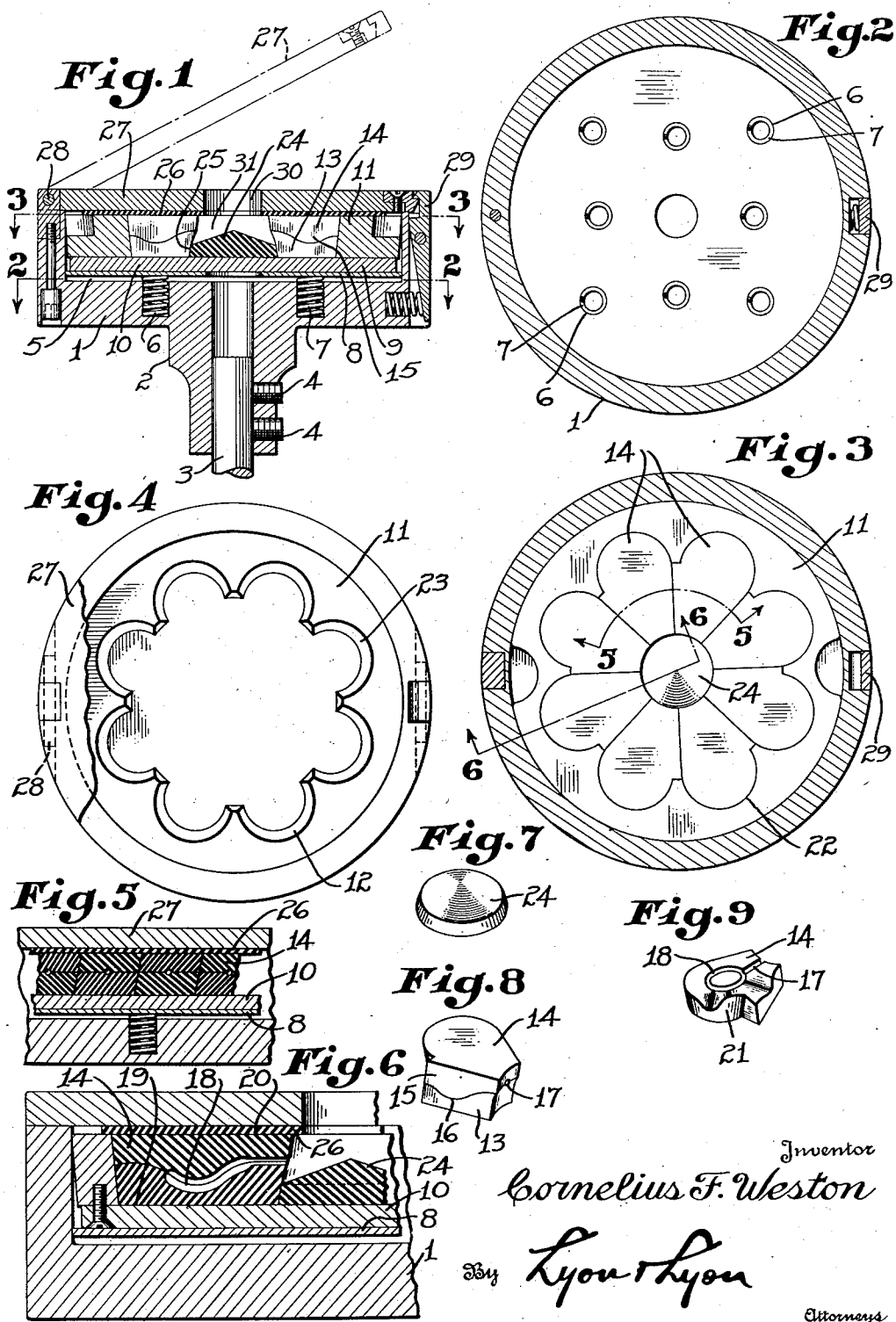
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WAX CASTER

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WAX CASTER

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5 Claims. (Cl. 18—26)

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My invention relates to a wax caster, and more specifically to a device for casting wax impressions to be used as models in the making of molds for the casting of jewelry, such as rings and the like.

An object of my invention is to provide a device in which a multiplicity of molds for casting wax impressions can be mounted, and which will align the molds or hold them in position during the centrifugal spinning operation which forces the wax into the molds.

In my device a plurality of different wax castings can be formed, or a plurality of identical wax castings can be made.

Another object of my invention is to permit the use of rubber molds for wax casting and to hold the rubber molds together and prevent leakage or spilling of the wax during the centrifugal process of casting the same.

Other objects and advantages of my invention will be apparent from the following description of the preferred embodiments thereof.

In the drawings:

Figure 1 is a cross section of my wax caster.

Figure 2 is a cross section taken on the line 2—2 of Figure 1.

Figure 3 is a cross section taken on the line 3—3 of Figure 1.

Figure 4 is a plan view with the lid broken away and the rubber molds removed.

Figure 5 is a circumferential section taken on the line 5—5 of Figure 3.

Figure 6 is a cross section taken on the line 6—6 of Figure 3.

Figure 7 is a perspective view of the central plug.

Figure 8 is a perspective view of a rubber mold.

Figure 9 is a perspective view of a rubber mold with the upper half removed.

Referring to the drawings, a wax caster constructed in accordance with my invention has a circular housing 1 with a hob 2 extending downwardly therefrom into which a shaft 3 of a prime mover is anchored by the set screws 4. The shaft 3 is adapted to rotate and spin the housing 1.

The housing 1 forms a circular cavity 5 with bores 6 for the reception of coil springs 7. A plate 8 rests upon the springs 7. Positioned upon the plate 8 is a mold holder 9 which comprises a bottom plate 10 and a circular outer wall 11 with a scalloped inner form 12. Positioned upon the plate 10 are the rubber molds 14. These molds 14 are formed of rubber in the following manner: A model of the desired wax casting

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is first formed in metal and then is placed in a mold having a configuration to form a mold 14. Rubber is then positioned in the mold around the casting and vulcanized so as to form a mold 14. The mold 14 is then cut open on any line such as the cut 16 to form upper and lower halves 13 and 15, and the metal form removed. The metal form has attached thereto a projection which leaves a pouring port 17 extending in to the mold 14 so that wax may enter this port and fill the cavity 18 left by the metal form.

The molds 14 preferably are formed to have top and bottom surfaces 19 and 20, respectively, parallel and slightly higher than the wall 11. The bottom surface 19 of the molds 14 is positioned in the cavity in the mold holder 9 so as to rest upon the plate 8. The side walls of the molds 14 are formed so that the side 21 is shaped to fit in the scallops 22 and these taper inwardly in a downward direction as the cavity walls have an inwardly projecting taper 23.

While I have shown the shape of the mold holder 9 as scalloped, it should be understood that any complementary configurations, such as triangular cavities and the like, could be used. The molds 14 are formed to correspond to each other and all to be similar and fit in the mold holder 9 in a pattern shown in the drawings. Each mold has its sides where they contact each other, sloping in the same direction (see Figure 5). A central plug 24 is positioned in the center to hold the molds in position. The inner surfaces of the molds 14 contacting the plug 24 are preferably made with a taper 25 which corresponds to the taper on the circumference of the plug 24. The upper surfaces 20 of the molds 14 are parallel with the upper surface of the mold holder 9, but extend slightly thereabove. Upon this upper surface is positioned a rubber mat 26. A lid 27 is hinged at 28 to the housing 1 and is closed down by means of the latch 29. This cover 27, when latched down, slightly compresses the mat 26 which in turn compresses the molds 14 between the cover 27 and the springs 7. As the molds 14 extend above the upper surface of the mold holder 9, they will be slightly compressed and this compression will tend to close the cuts 16 and the taper of the side walls will lock all of the molds in position and prevent any leakage between molds or movement of the molds in the holder. If the wax leaks between the molds when they are cast, it will make them very difficult to remove.

A hole 30 in the lid 27 permits molten wax to be poured in to the cavity 31 on top of the plug

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24. When the housing 1 is spun centrifugally by the shaft 3, the molten wax in the cavity 31 will be hurled through the port 17 into the cavity 18 where it will cool and solidify and form an impression of that cavity.

While I have described the preferred embodiments of my invention, I am not limited to any of the details herein set forth except as described in the following claims.

I claim:

1. In a wax casting device, a housing, a mold holder carried by said housing, a plurality of rubber molds radially held in said holder, a cavity in the center of said holder, ports in said molds to provide a passage from said cavity to the cavity in said mold, spring means exerting pressure on one side of said molds, a cover on said housing against which said spring means compress said molds.

2. In a wax casting device, a housing, a mold holder carried by said housing having mold receiving cavities radially spaced therein, a plurality of rubber molds positioned in said cavities, said molds being in contact with each other, and spring means exerting pressure on one side of said molds, a cover on said housing against which said spring means compress said molds.

3. In a wax casting device, a housing, a mold holder carried by said housing having mold receiving cavities radially spaced therein, a plurality of rubber molds positioned in said cavities, said molds being in contact with each other, spring means exerting pressure on one side of said molds, a cover on said housing against which said spring means compress said molds, and said molds overlapping each other whereby the compression exerted between said cover and said spring means will seal the division between said molds.

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4. In a wax casting device, a housing, a mold holder carried by said housing having a mold receiving cavity, a plurality of rubber molds radially positioned in said cavity leaving a central opening, ports in said molds to provide a passage from said opening into said molds, said molds being in contact with each other, and spring means exerting pressure on one side of said molds, a cover on said housing against which said spring means compress said molds.

5. In a wax casting device, a housing, a mold holder carried by said housing having mold receiving cavities radially spaced therein, a plurality of rubber molds positioned in said cavities, the walls of said cavities being tapered upwardly, the sides of said mold being tapered oppositely to said tapered walls where they contact said walls, said molds being in contact with each other, spring means exerting pressure on one side of said molds, a cover on said housing against which said spring means compress said molds, and said molds overlapping each other whereby the compression exerted between said cover and said spring means will seal the division between said molds.

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