July 8, 1924. 1,500,756

B. H. HOWARD ET AL

CASTING FOR FEEDERS FOR INGOT MOLDS

Filed Feb. 15, 1924

Fig. 1.

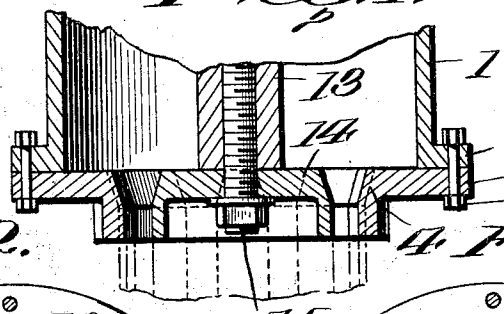


Fig. 2.

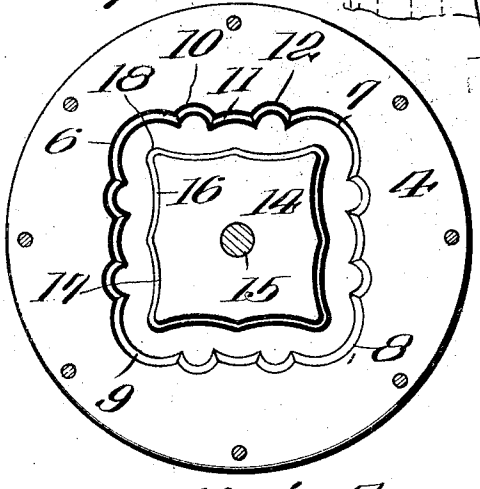


Fig. 3.

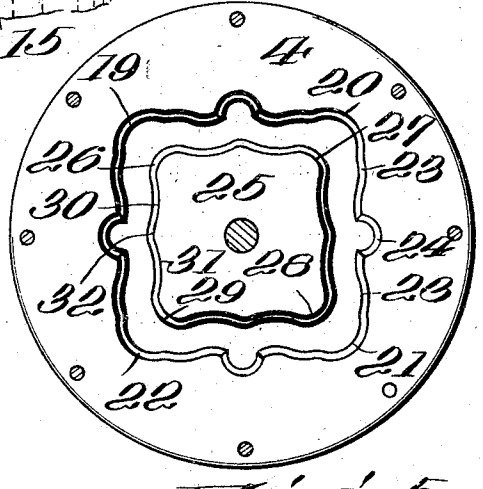


Fig. 4.

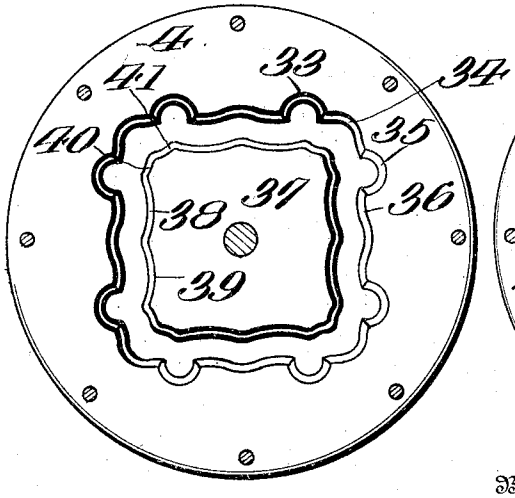
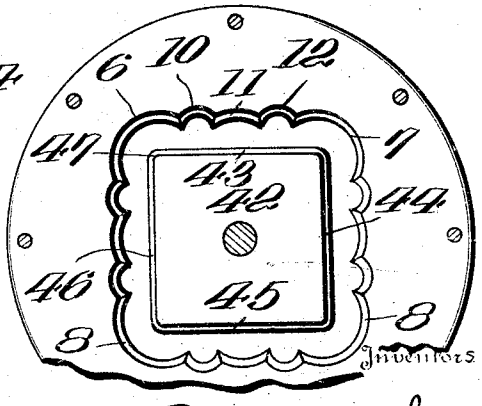


Fig. 5.



Inventors

B. H. Howard.

E. J. Turner.

By E. R. Wright Jr. Attorney

Patented July 8, 1924. 1,500,756

UNITED STATES PATENT OFFICE.

BLOOMFIELD H. HOWARD, OF WASHINGTON, DISTRICT OF COLUMBIA, AND ERNEST J. TURNER, OF PITTSBURGH, PENNSYLVANIA.

CASTING FOR FEEDERS FOR INGOT MOLDS.

Application filed February 15, 1924. Serial No. 693,096.

To all whom it may concern:

Be it known that BLOOMFIELD H. HOWARD and ERNEST J. TURNER, citizens of the United States, residing, respectively, at Washington, District of Columbia, and Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Castings for Feeders for Ingot Molds, of which the following is a specification.

Our invention relates to improvements in castings for feeders for ingot molds.

The object of our invention is to provide a casting for forming feeders for ingot molds made by forcing plastic material through a passage in a casting whereby a complete feeder is made with supporting means on its outer face, this feeder corresponding with that shown in an application of even date.

Another object of our invention is to provide a casting in which a feeder may be formed having a large number of curved walls adapted to correspond with the contour of the bore of the mold, some of said curved walls forming ribs for supporting the feeder on the mold.

A further object of our invention is to provide a specially shaped casting adapted to form a correspondingly shaped feeder and having a certain arrangement of walls hereinafter more fully described.

In the accompanying drawings:—

Figure 1 is a vertical sectional view of the lower end of a cylinder partly broken away and showing our improved casting applied thereto.

Figure 2 is a horizontal sectional view of Figure 1.

Figure 3 is a view similar to Figure 2 showing a modified form of casting.

Figure 4 is a view similar to Figures 2 and 3 showing a still further modified form of casting.

Figure 5 is a view similar to Figure 2 showing a modified form of the inner member of the casting.

Referring now to the drawings 1 represents the lower end of a cylinder in which the plastic material is compressed and is provided with an outwardly extending flange 2 to which is bolted the flange 3 carried by the outer casting member 4 by means of bolts 5. This casting member 4 is provided with four inwardly bellied walls 6, 7, 8 and 9 arranged at the corners and are connected by a series of outwardly curved walls 10, 11 and 12. The outwardly curved walls 10 and 12 form the vertical ribs on the outer periphery of the feeder for supporting it on the upper end of the mold. The lower end of the cylinder is provided with a cylindrical member 13 to which is bolted the inner member 14 by means of a bolt 15. This inner member 14 has each of its four walls provided with two inwardly bellied walls 16 and 17 connected at the corners by the outwardly curved walls 18.

In the modification shown in Figure 3 we have shown the outer member 4 provided at the corners with outwardly bellied walls 19, 20, 21 and 22 connected by irregular walls 23 which have their inner ends connected to the outwardly curved wall 24. These outwardly curved walls 24 form the supporting ribs on the outer face of the feeder. We have described one side wall but it will be understood that all four walls are constructed alike. The inner member 25 is provided at its four corners with the outwardly bellied walls 26, 27, 28 and 29 corresponding to the walls of the outer member and each side wall is provided with two inwardly bellied walls 30 and 31 connected by outwardly curved walls 32.

In the modification shown in Figure 4 we have shown the outer member 4 provided at each corner with three outwardly curved walls 33, 34 and 35 connected by a wall 36 of irregular contour. In this form the inner member 37 has each of its side walls provided with two inwardly bellied walls 38 and 39 connected at the corners by the two inwardly curved walls 40 and 41.

In Figure 5 we have shown the outer member 4 constructed exactly like that shown in Figure 1 and like reference numerals indicate like parts. In this form however, the inner member 42 is of a square form having four straight walls 43, 44, 45 and 46 connected at the corners by outwardly curved walls 47.

Having thus fully described our invention what we claim is:—

1. A casting for feeders for ingot molds comprising an outer member having four outwardly bellied walls arranged at the

corners and connected by shorter outwardly curved walls and an inner member having walls of a different contour.

2. A casting for feeders for ingot molds comprising an outer member having four outwardly bellied walls arranged at the corners and connected by shorter outwardly curved walls arranged in a different arc of a circle and an inner member having walls of a different contour.

3. A casting for feeders for ingot molds comprising an outer member having four outwardly bellied walls arranged at the corners and connected by three outwardly curved shorter walls arranged in a different arc of a circle and an inner member having four walls, each wall composed of two inwardly bellied portions.

4. A casting for feeders for ingot molds comprising an outer member having four outwardly bellied walls arranged at the corners and connected by three outwardly curved walls arranged in a different arc of a circle and an inner member having straight walls slightly rounded at the corners.

5. A casting for feeders for ingot molds comprising an outer member having four outwardly bellied corners connected by walls of an irregular contour and an inner member having four outwardly bellied corners connected by inwardly bellied walls.

6. A casting for feeders for ingot molds comprising an outer member having three outwardly curved walls arranged at the corners and connected by walls of an irregular contour and an inner member having two inwardly curved walls arranged at the corners and connected by two inwardly bellied walls.

In testimony whereof we affix our signatures.

BLOOMFIELD H. HOWARD.
ERNEST J. TURNER.