

between two casting dies 16, 17, which have been suitably machined (FIG. 4).

In conventional manner, a sealing element 19 is inserted between the casting dies, this sealing element 19 comprising a cylindrical skirt 20, adapted to surround the periphery of the casting dies, and, located at the central zone of the internal surface of this skirt, a lip 21 which projects radially inwardly from the inner surface of the skirt, the side faces of lip 21 being adapted to come into abutting contact with the cooperating edges of the casting dies 16, 17.

Insofar as the casting die 17 (corresponding to the semi-finished concave face 12 of disc 10) is concerned, the casting surface of this die 17 usually has the shape of a body of revolution (for example a circle), and it is a simple matter to give a complementary shape to the corresponding transverse face 23 of lip 21 of the sealing element 19.

By way of contrast, insofar as the casting die 16 (corresponding to the progressive convex face 13) is concerned, it would be difficult, due to the progressivity of this surface, to give a complementary shape to the corresponding transverse face of the lip 21.

For this reason provision is made, in a conventional manner, to provide, at the periphery of this casting die 16, a plane facet 25 which circularly surrounds the zone of the casting surface of this die 16 corresponding to the active zone 13 of the disc which it is intended to obtain; the corresponding transverse face 24 of lip 21 of sealing element 19 can then, conveniently, be plane itself.

However, according to the invention, this facet 25 of die 16 has a sufficiently large radial dimension to ensure that — at all points of the sealing element 19, and more particularly at all points of the lip 21 of sealing element 19 — this facet 25 will extend radially inwardly beyond sealing element 19, as will be apparent from FIG. 4.

Thus, this facet 25 is, considered as a whole, adapted to engage lip 21 of sealing element 19 and, beyond lip 21, is adapted to form the edge facet 15 provided, according to the invention, on the blank 10 which is to be formed.

This blank can — in instances where the patients, whose sight requires the corresponding progressivity of focal power, do not suffer from other anomalies of vision — be directly used for obtaining an ophthalmic lens which is suitable for such patients, simply by trimming and machining the shape of the blank.

However, as has been stated above, the concave neutral face 12 has to be subjected to a second operation when these patients have other defects of vision which have to be corrected.

It is usual, for machining this face 12, to mount a gripper block 30 onto the progressive convex face 11 by casting a material having a low melting point, between this face 12 and a bell-shaped mould 31, which is applied by its edge to the periphery of the face 12 (FIGS. 5 and 6).

As these expedients are well known per se, they will not be described in detail now.

It suffices to point out that, by virtue of the provision of the edge facet 15 which, according to the invention, the blank 10 includes around its active zone 13, the bell-shaped mould 31 (which is usually a body of revolution) can be directly applied to the face 11 of the blank without the interposition of any fitting ring.

Indeed, it suffices if the free edge of the mould 31 simply has a plane shape, as will be the face for the embodiment of FIGS. 1 to 3.

As mentioned above, the radial dimension of the edge facet 15 is preferably at least 1 mm; this is to ensure that the free edge of mould 31 will be supported, reliably and effectively against the edge facet 15 over the whole length of the facet.

According to the modifications illustrated in FIGS. 7 and 8, the edge facet 15 of blank 10 has, according to the invention, the shape of a body or revolution, for example a conical shape (FIG. 7) or a spherical shape (FIG. 8).

At the same time, the free edge of the bell-shaped mould 31 has complementary configuration (not shown).

FIG. 9 illustrates a further advantage of the invention. In FIG. 9 a semi-finished blank of known kind is shown in a continuous line, for an ophthalmic lens of progressively variable power, while the corresponding semi-finished blank 10 according to the invention is shown in broken lines.

Insofar as the semi-finished blank of the prior art is concerned, it is usual — for the convenience of machining of the moulds used for casting such a blank — to arrange for the progressive surface of such a blank to extend over the whole of the convex face of the disc. It is necessary to avoid a dangerous thinning of such a blank opposite the portion of this progressive surface whose radius of curvature is the smallest — to give the whole of the blank an excess thickness J, which increases, without advantage, the amount of raw material used, and also increases, to a corresponding degree, the time subsequently needed to machine the concave face of the disc.

By automatically limiting the zone over which this progressive surface extends, the edge facet 11 according to the invention enables this excess J to be dispensed with so that, other things being equal, a semi-finished blank according to the invention will be lightened with respect to a comparable semi-finished blank of the prior art.

Of course, the present invention is not restricted to the embodiment described, nor to the forms of implementation of the invention described above, but comprehends all modifications thereof within the scope of the appended claims.

In particular, the concave face of the blank could comprise an active zone of progressively variable radius of curvature, so as to complement the active zone of the convex face of this blank and/or so as to replace the active zone of the convex face.

I claim:

1. A method of producing an ophthalmic lens of progressively variable focal power, in which a semi-finished blank is first obtained by casting an organic material between two casting dies, at least one of the faces of the blank having an active zone of progressively variable radius of curvature on at least one side of at least one central line, a gripper block for holding the blank is mounted on the said face of the blank by casting a material of low melting point between the said face and a bell-shaped mold which is open towards the said face, and the face of the blank lying opposite to that on which said gripper block is mounted is machined to the desired profile, the gripper block being subsequently removed by melting, wherein the improvement resides in forming at the periphery of the active zone of the said face of the blank, when the blank is cast an edge facet which extends continuously and circularly around the whole of the active zone to form a supporting face, providing