



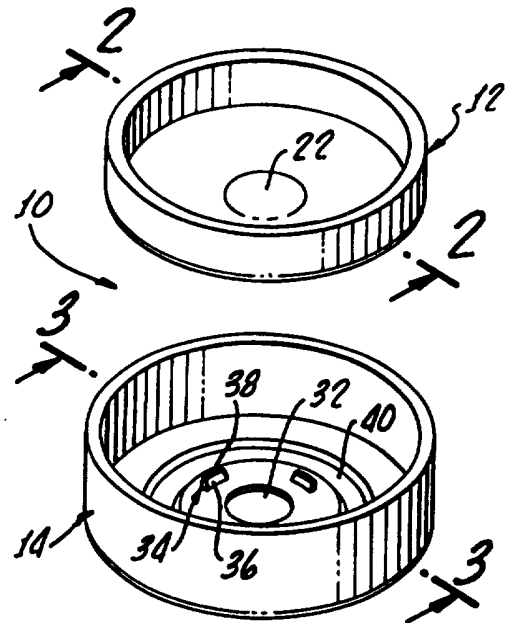
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification⁶ : B29C 33/30, B29D 11/02, B29C 33/00, B29D 11/00</p>	<p>A3</p>	<p>(11) International Publication Number: WO 96/16780</p> <p>(43) International Publication Date: 6 June 1996 (06.06.96)</p>
<p>(21) International Application Number: PCT/US95/15024</p> <p>(22) International Filing Date: 21 November 1995 (21.11.95)</p> <p>(30) Priority Data: 08/346,974 29 November 1994 (29.11.94) US</p> <p>(71) Applicant: ALLERGAN, INC. [US/US]; 2525 Dupont Drive, P.O. Box 19534, Irvine, CA 92713-9534 (US).</p> <p>(72) Inventors: GLICK, Robert, E.; 21882 Midcrest Drive, Lake Forest, CA 92630 (US). DEACON, Jim; 26681 Vuelta Loma, Capistrano Beach, CA 92624 (US). KENT, Bruce, W.; 1228 Paseo Gracia, San Dimas, CA 91773 (US).</p> <p>(74) Agents: LAMBERT, Howard, R. et al.; Allergan, Inc., P.O. Box 19534, 2525 Dupont Drive, Irvine, CA 92713-9534 (US).</p>		<p>(81) Designated States: JP, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> <p>(88) Date of publication of the international search report: 19 September 1996 (19.09.96)</p>

(54) Title: CAST MOLDING OF INTRAOCULAR LENSES

(57) Abstract

The invention provides a disposable plastic mold assembly (10) for an intraocular lens or the optic body thereof, which is inexpensive, less labor intensive than prior art intraocular lens molding techniques, and produces an intraocular lens having smooth, polished edges which require little or no post-mold finishing work. Numerous innovative features of the invention include an edge design which assures a seal between the male (12) and female (14) molds to thereby minimize flash during the cast molding operation, and the provision of a means for pre-aligning the male and female molds during assembly, consisting of an interference fitting relationship between the male and female molds. An additional feature is a means for maintaining contact between the male and female molds during casting, which particularly involves the provision of a negative draft angle on the inner surface of the female mold's outer wall, or, alternatively, texturing which is applied to that inner surface so that it engages the outer edge at the top of the male mold during assembly. Yet another important feature of the invention is a means for achieving axial and rotational orientation to produce lens edge geometries without unwanted steps on the lens edge. The alignment is achieved with interlocking steps (34, 36, 38) on the male and female molds. The interlocking elements may be pins or annular elements.



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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 95/15024

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 6 B29C33/30 B29D11/02 B29C33/00 B29D11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 IPC 6 B29C B29D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO,A,93 04848 (BAUSCH & LOMB) 18 March 1993 see page 22, line 32 - page 23, line 28; figures 21-23	1-5
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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- *&* document member of the same patent family

Date of the actual completion of the international search

2 August 1996

Date of mailing of the international search report

7. 08. 96

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 95/15024

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB,A,2 219 413 (COOPERVISION OPTICS) 6 December 1989 see page 12, line 25 - page 13, line 2; figures 4,8A see page 17, line 8 - line 12; figure 7E ---	14-30
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INTERNATIONAL SEARCH REPORT

International application No.

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. Claims 1-13: Mould assembly with aligned parts in interference relationship.
2. Claims 14-23: Mould assembly with mould parts shaped to provide axial and rotational alignment.
3. Claims 24-30: A mould assembly with a sealing means.

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 95/15024

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