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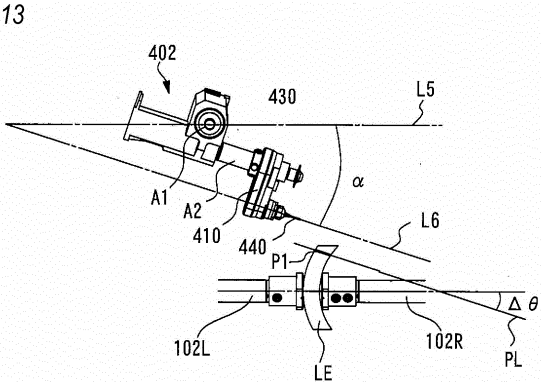
(54) EYEGLASS LENS PROCESSING APPARATUS, EYEGLASS LENS PROCESSING CONTROL DATA ACQUISITION APPARATUS AND EYEGLASS LENS PROCESSING METHOD

(57) An eyeglass lens processing apparatus for boring an eyeglass lens, comprising: a lens chuck shaft (102L, 102R) for holding the eyeglass lens; a boring tool (440) configured to bore the eyeglass lens; a boring tool drive shaft (440a) configured to drive the boring tool (440); a boring data acquisition means (50) configured to obtain boring data with respect to the eyeglass lens; shaft-to-shaft distance adjusting means (100c) for adjusting the shaft-to-shaft distance between the lens chuck shaft and the boring tool drive shaft; turning mechanism for adjusting the position relationship between the eyeglass lens and the boring tool / lens rotation means (100a) for rotating lens chuck shaft (102L, 102R); wherein the eyeglass lens processing apparatus for boring an eyeglass lens, further comprises:
a first rotation shaft (A1) to enable rotation of the boring tool drive shaft (440a) about a first turn angle (alpha), and a second rotation shaft (A2) to enable rotation of the boring tool drive shaft (440a) about a second turn angle (beta), a turn angle acquisition means (50) configured to obtain, according to the boring data, a first turn angle (alpha) of the boring tool drive shaft about a first rotation shaft (A1) and a second turn angle (beta) of the boring tool drive shaft about a second rotation shaft (A2) different from the first rotation shaft (A1); and control means (50) configured to control the driving of the boring tool drive shaft (440a) to bore the eyeglass lens according to at least any one of the first (alpha) and second (beta) turn angles.

FIG.13



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EUROPEAN SEARCH REPORT

Application Number
EP 16 16 3193

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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~~The present search report has been drawn up for all claims~~

Place of search	Date of completion of the search	Examiner
Munich	25 July 2016	Herrero Ramos, J

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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TECHNICAL FIELDS SEARCHED (IPC)

~~The present search report has been drawn up for all claims~~

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

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1-11

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

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LACK OF UNITY OF INVENTION
SHEET B

Application Number
EP 16 16 3193

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-11

An eyeglass lens processing control data acquisition apparatus for obtaining processing control data for boring an eyeglass lens, comprising:
a data acquisition means for obtaining boring data with respect to the eyeglass lens; and a turn angle acquisition means for obtaining a first turn angle (alpha) of the boring tool drive shaft about a first rotation shaft (A1) and a second turn angle (beta) of the boring tool drive shaft about a second rotation shaft (A2) according to the boring data.
Problem solved: To provide an alternative data acquisition apparatus for eyeglass lens processing control.

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2. claims: 12-15

An eyeglass lens processing apparatus, comprising:
a first processing tool configured to process an eyeglass lens;a second processing tool configured to process the eyeglass lens, the second processing tool being different from the first processing tool;a first processing tool rotation shaft for rotating the first processing tool;a second processing tool rotation shaft for rotating the second processing tool;a drive means configured to rotate a drive shaft in normal and reverse directions; a rotation transmission mechanism including a clutch, the rotation transmission mechanism being configured to transmit the rotation of the drive shaft to the first processing tool rotation shaft when the drive shaft is rotated in one of normal and reverse directions, and transmit the rotation of the drive shaft to at least the second processing tool rotation shaft when the drive shaft is rotated in the other direction; and a drive control means for controlling the rotation direction of the drive means to switch from one of the first processing tool rotation shaft and the second boring tool drive shaft to the other of the first processing tool rotation shaft and the second boring tool drive shaft.
Problem solved: Providing an alternative construction (more compact compared to the state of the art) for a lens processing apparatus
(Description paragraph 0049: "By switching the rotation direction of the drive means using the clutch, the processing tool to be driven for processing can be switched. This eliminates the need to equip processing tools with the drive means separately and thus eliminates complicated control. Multiple processing tools can be driven with a simple structure. This enables downsizing of the apparatus".)

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LACK OF UNITY OF INVENTION
SHEET B

Application Number
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