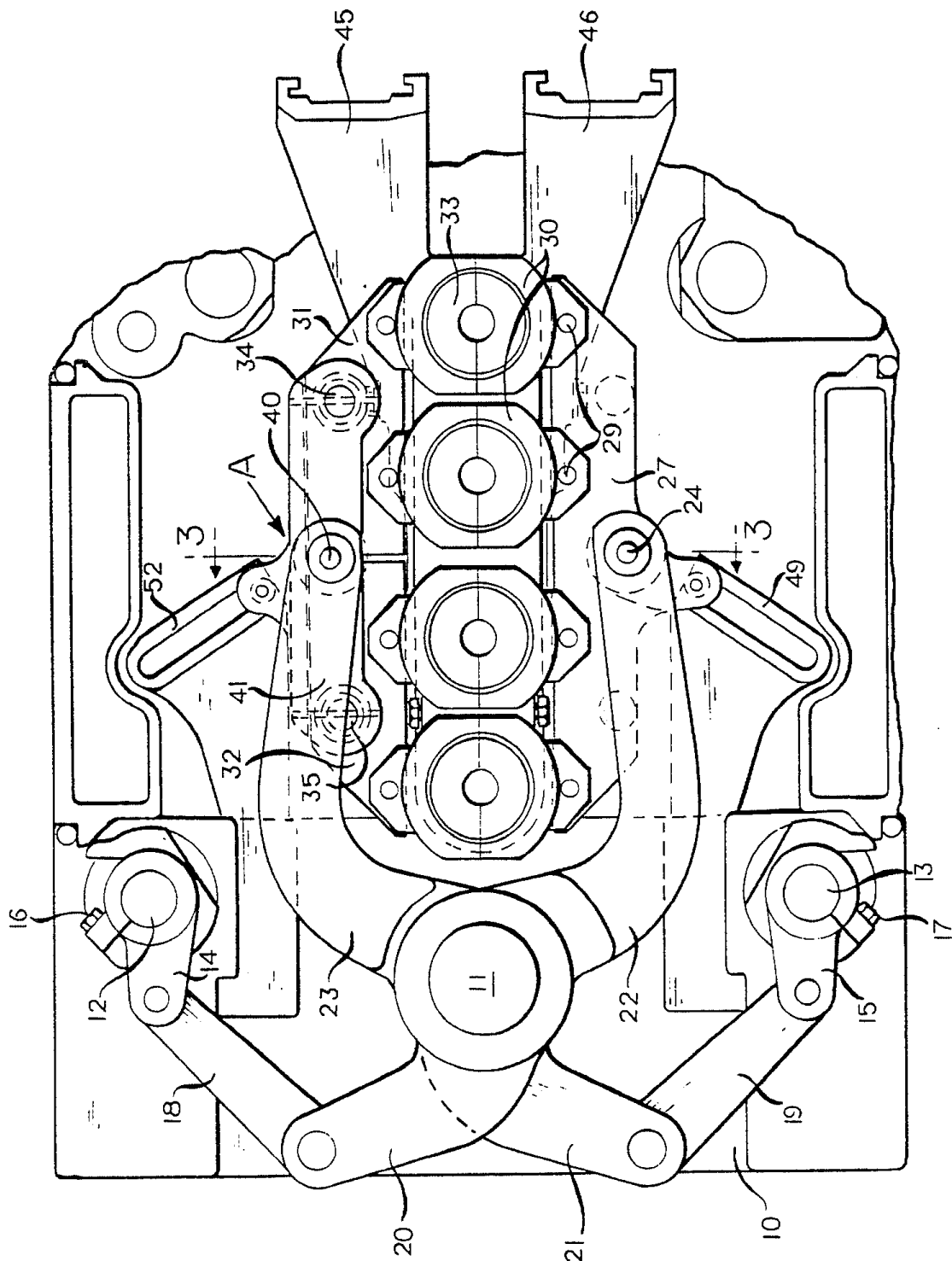


39 Documents

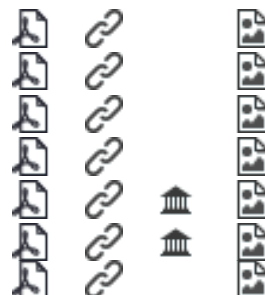
Publication numbers	Title	Current assignees
US4486215 A	Quadruple cavity glass mold operating apparatus	OWENS ILLINOIS
CN205601195U U	Glass fiber -reinforced plastic cylinder manufacturing installation	CHANGSHA HAOKE ENVIRONMENTAL PROTECTION MANUFACTURING
EP3428131 A1	Method and mechanism for opening and closing moulds for a machine for forming glass items	VITRO
US3721545 A	Multiple-cavity glass mold opening apparatus	OWENS ILLINOIS
US4339264 A	Glassware forming apparatus	GLASS MACHINERY, ...
US4466821 A	Baffle moving and alignment means for the four gob glass forming machine	OWENS ILLINOIS
EP1490306 A1	Method and machine for the production of hollow glassware	VITRO
CN102701574 A	Roast-bending die for secondary forming of automobile glass	FUYAO GLASS INDUSTRY, ...
CN102491624 A	Secondary forming baking and bending die of automobile glass	FUYAO GLASS INDUSTRY, ...
US4283216 A	Producing glass sheets of required curved shape	TRIPLEX SAFETY GLASS
CN104608075 A	Fixture for detecting errors of transmission wave surface of large-sized neodymium glass plate	LASER FUSION RESEARCH CENTER CHINA ACADEMY OF ENGINEERING PHYSICS
CN204431116U U	Clamp for error detection of transmitted wave surfaces of large-size neodymium glass sheets	LASER FUSION RESEARCH CENTER CHINA ACADEMY OF ENGINEERING PHYSICS
EP2560925 A1	Glassware mold cooling air supply	OWENS BROCKWAY GLASS CONTAINER
US20070227192 A1	Mold cooling system for I.S. machine	EMHART GLASS
EP1513141 A2	Optical pickup apparatus, optical disk apparatus and optical pickup adjustment method	SONY
US4913716 A	Plunger change apparatus and method	OI NEG TV PRODUCTS
CN101045603 A	Glass molding production device and method for producing glass molding	OHARA
US5938809 A	I.S. machine	EMHART GLASS
US4276075 A	Machine for the manufacture of glass articles by blow moulding glass	OLIVOTTO VETROMECC
EP1890630 A2	Robotic catheter system	AURIS HEALTH
EP-787111 A1	Process for manufacturing moulded glass articles using a press process, and a device which is especially suitable for carrying out the process	POTING

Publication numbers	Title	Current assignees
EP-585232 A1	Channel device for a glass moulding machine.	HEYE HOLDING
US3223511 A	Glassware forming machine	EMHART
CN208450617U U	Metal bar material autoloader	CHANGSHU JIANHUA DIES SETS
WO2014126177 A1	Trajectory control device	MIE UNIVERSITY
TW200700334 A	Apparatus for molding optical product	TAKEUCHI MANUFACTURING
EP-830321 A1	Apparatus for and method of bending glass sheets	PILKINGTON
EP-677491 A2	Bending and tempering glass sheets	PILKINGTON, ...
US5049178 A	Partial press apparatus and method for glass sheet bending	PPG INDUSTRIES
US5498274 A	Method and device for forming a glass product	ASAHI GLASS
EP1906858 A1	Robotic catheter system	AURIS HEALTH
WO201640705 A1	Louvered light re-directing structure	SERRALUX
FR1184381 A	Removal device for glass articles on the continuous machines to blow the bottles	BERLINER MASCHB VORM L SCH
JP06293525 A	Glass molding device	SAKAI YASUE
US20050222554 A1	Robotic catheter system	AURIS HEALTH
US20070156123 A1	Robotic catheter system and methods	AURIS HEALTH
US20070043338 A1	Robotic catheter system and methods	AURIS HEALTH
US20060057560 A1	Methods using a robotic catheter system	AURIS HEALTH
EP-555955 A1	Mould mechanism	EMHART GLASS

Images



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JPS623097	B2	1987-01-23	JP87003097				
CA1215840	A	1986-12-30	CA1215840				
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IT8448128	D0	1984-05-03	IT8448128				

Abstract

(US4486215)

The disclosed apparatus is a quadruple gob glass parison forming machine. Its distinguishing features are the mounting of the mold carrying inserts in the mold arms so that equal closing forces will be applied to all the molds, and that the mold arms are formed with extensions so that a conventional mold closing motor can be coupled to the arms and the closing force will be greater by at least 25%. The four molds are opened and closed within the space that has normally been considered cramped, even when three molds were being used.

Inventors

IRWIN GEORGE W

MUMFORD EUSTACE H

Latest standardized assignees - inventors removed

OWENS ILLINOIS

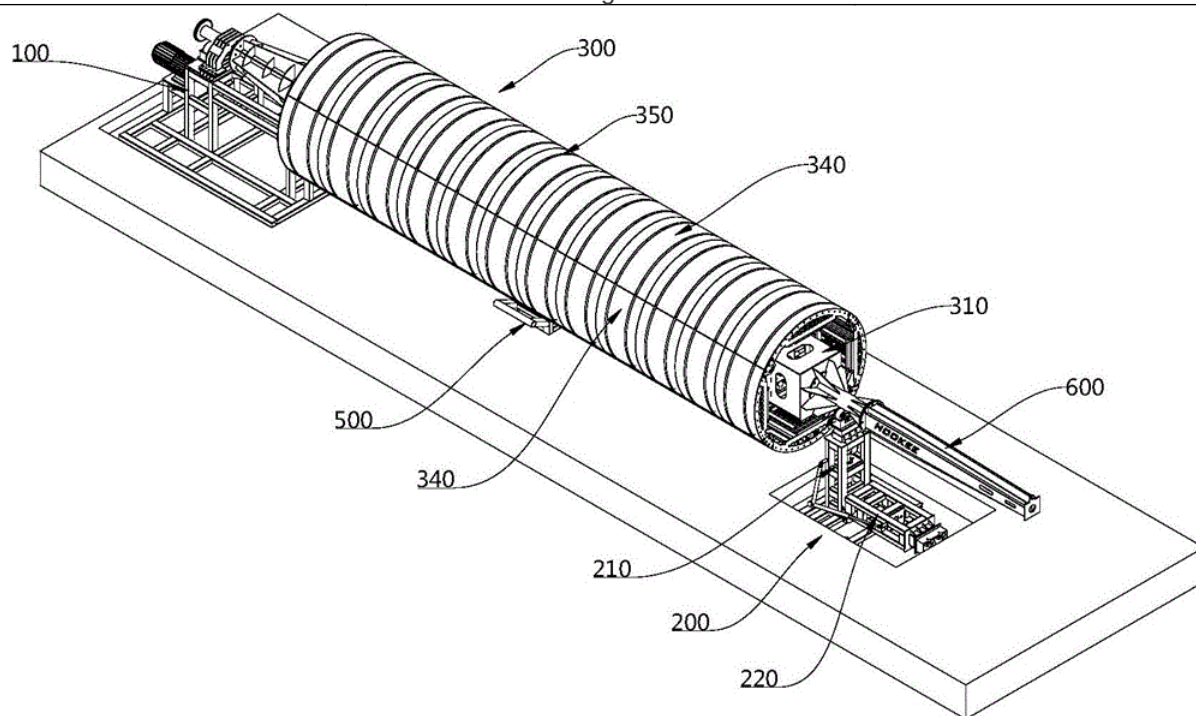
Family 2/39 - FAMPAT - ©Questel

Title

(CN205601195U)

Glass fiber -reinforced plastic cylinder manufacturing installation

Images



Publication numbers with kind code & date

CN205601195

U

2016-09-28

CN205601195U



Abstract

(CN205601195)

The utility model discloses a glass fiber -reinforced plastic cylinder manufacturing installation, glass fiber -reinforced plastic cylinder manufacturing installation include front support seat, back supporting seat and lie in being used for between the two and prepare glass fiber -reinforced plastic cylinder's winding mould that back supporting seat has to be taken in so that take out fashioned glass fiber -reinforced plastic cylinder's the position of taking in when being used for supporting the support position of winding mould and being used for the drawing of patterns. The winding mould extends to be equipped with and substitutes the **support arm** that the back supporting seat provided the support when being used for the drawing of patterns being close to back supporting seat end, and the winding mould substitutes the **support arm** when still being equipped with at least one and being used for fashioned glass fiber -reinforced plastic cylinder to shift out to the **support arm** when supporting the supporting mechanism drawing of patterns of winding mould, and the **support arm** substitutes the back supporting seat and provides the support for the winding mould. When fashioned glass fiber -reinforced plastic cylinder moved to the **support arm**, the supporting mechanism provided the support for the winding mould. Above - mentioned glass fiber -reinforced plastic cylinder manufacturing installation, drawing of patterns in -process, winding mould have two all the time and support the end, and the winding mould is difficult to warp because of overload damages.

Inventors

YUAN JUN

Latest standardized assignees - inventors removed

CHANGSHA HAOKE ENVIRONMENTAL PROTECTION MANUFACTURING

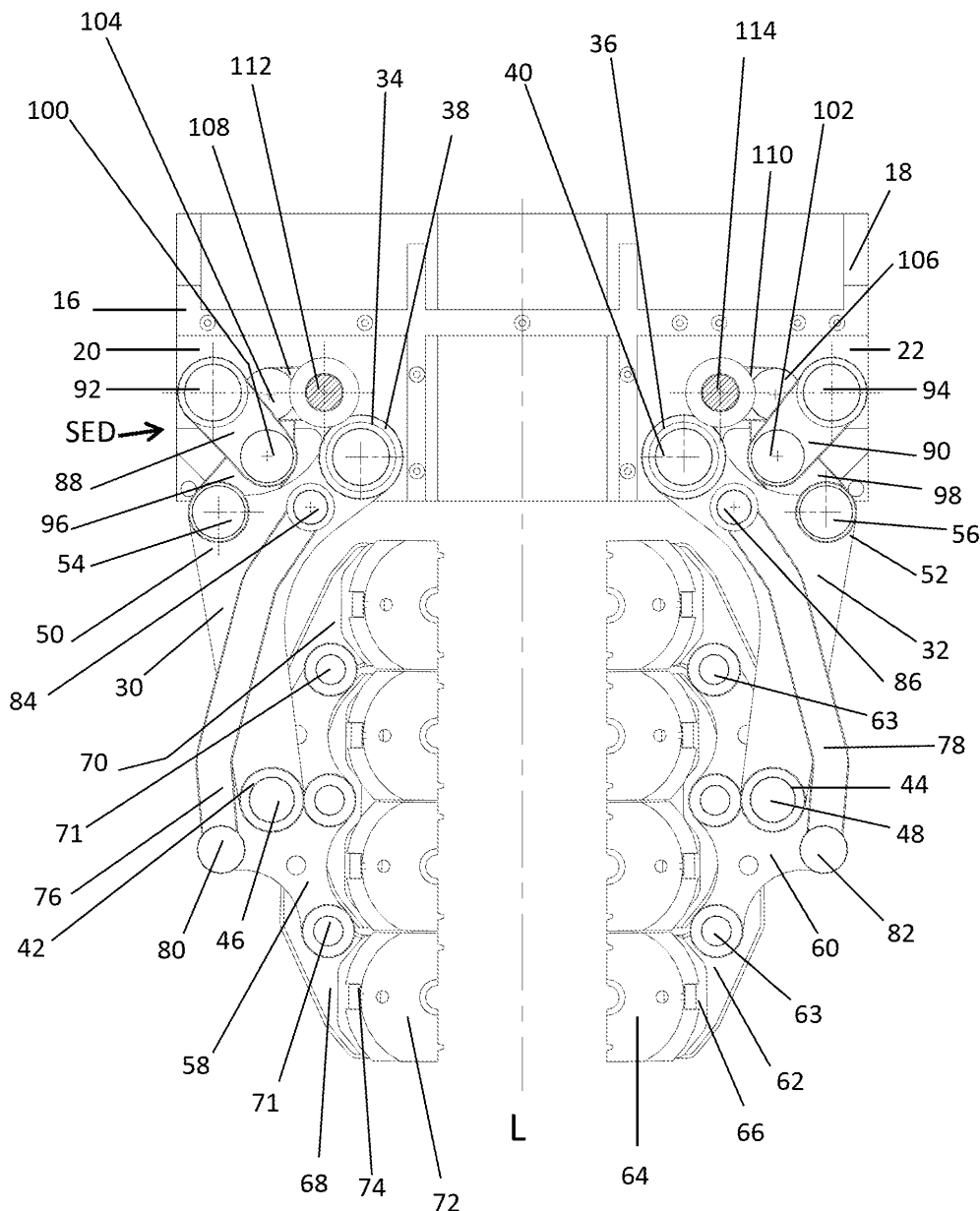
Family 3/39 - FAMPAT - ©Questel

Title

(EP3428131)

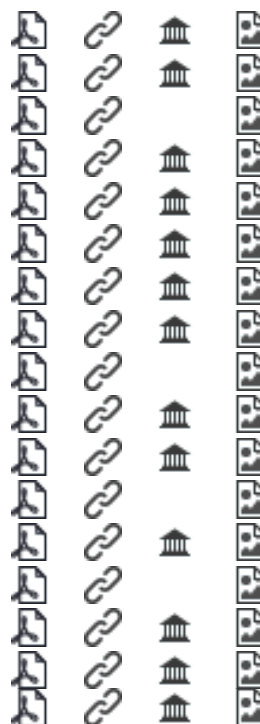
Method and mechanism for opening and closing moulds for a machine for forming glass items

Images



Publication numbers with kind code & date

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JP6578070	B2	2019-09-18	JP6578070
RU2697343	C1	2019-08-13	RU2697343
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EP3428131	A1	2019-01-16	EP3428131
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CA3016854	A1	2017-09-14	CA3016854



WO2017/155380

A1 2017-09-14 WO2017155380

Abstract

(EP3428131)

The present invention relates to a mold opening and closing mechanism for a machine for forming glass articles, which comprises at least one mold divided into two halves that open and close to form the articles, the halves of the molds being coupled to a pair of supporting arms, each arm being independently mounted opposite the other and separated in a parallel manner with respect to a support structure. The mechanism also comprises mold synchronizing means that are mounted so as to move with the mold support arms and to move inwards or outwards to open and close the molds. The mechanism further comprises **lever** means having a first end connected to the support structure, the **lever** means and the pair of support arms transmitting to the synchronizing means an articulated inward or outward movement to close or open the molds. The mechanism also comprises: drive means coupled to the support structure, for imparting an opening and closing movement to the support arms; a double-linkage closing system connected in an articulated manner to the synchronizing means; and a second end connected to the support structure, the **lever** means and the pair of support arms transmitting an articulated inward or outward movement to the synchronizing means to close or open the molds. The mechanism further comprises drive means coupled to the support structure to impart an opening and closing movement to the support arms, and a double-linkage closing system connected in an articulated and independent manner to each of the support arms and to the drive means. According to the invention, by means of a first rotational movement of the drive means, the support arms and synchronizing means move to a position for closing the molds and, with a second movement in the opposite direction, the synchronization means, each of the mold support arms, and each of the mold halves open.

Inventors

TIJERINA RAMOS VÍCTOR

Latest standardized assignees - inventors removed

VITRO

Family 4/39 - FAMPAT - ©Questel

Title

(US3721545)

Multiple-cavity **glass mold** opening apparatus**Images**

MULTIPLE-CAVITY GLASS MOLD OPENING APPARATUS

Original Filed June 25, 1969

5 Sheets-Sheet 1

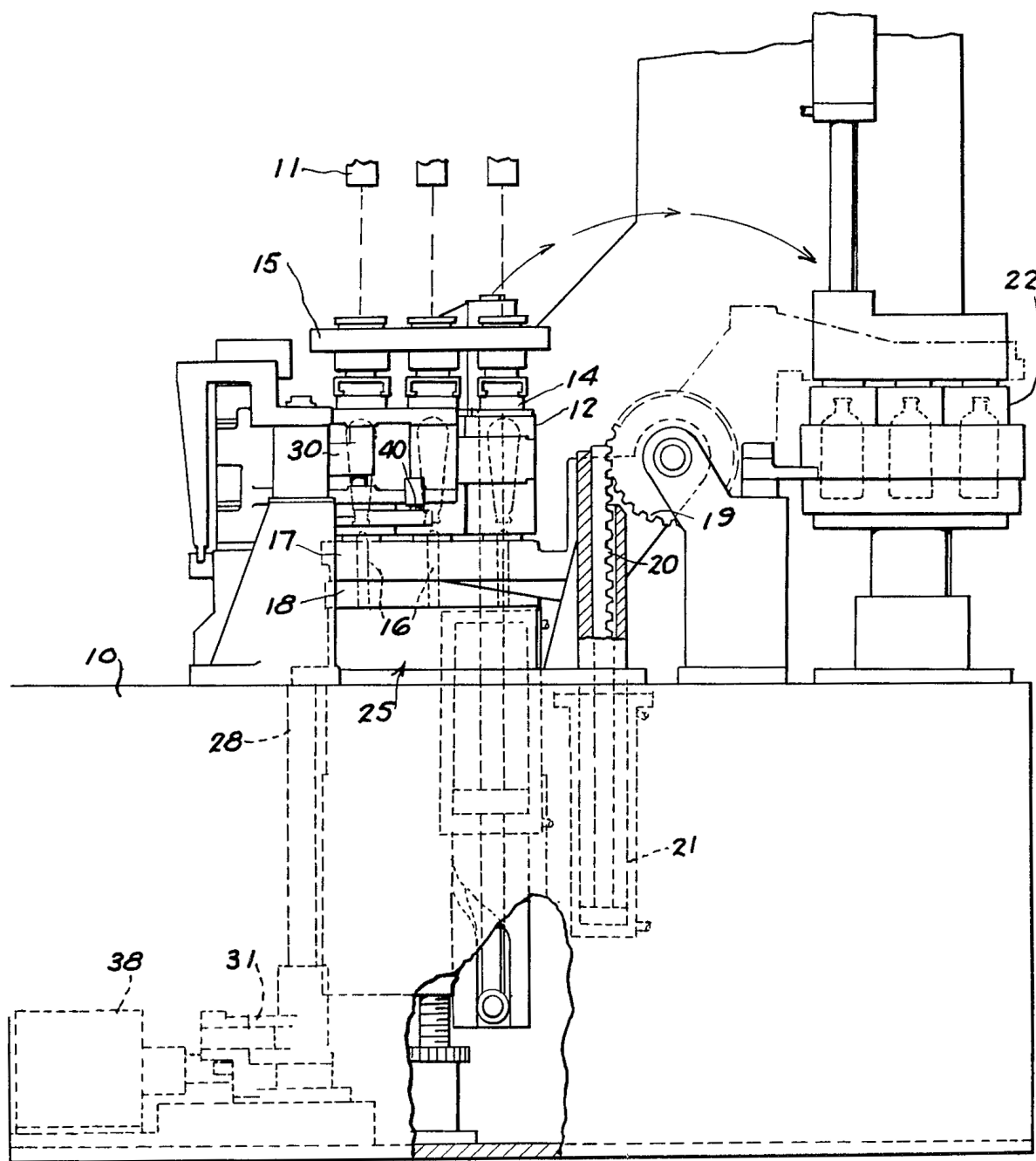


FIG. 1

INVENTOR.
GEORGE W. IRWINBY *D. T. Irwin &*
E. J. Holler

Publication numbers with kind code & date

US3721545

A 1973-03-20 US3721545



Abstract

(US3721545)

1297704 Glass forming machine OVENS-ILLINOIS Inc 24 June 1970 [25 June 1969] 30568/70 Heading C1M A glass forming machine includes a pair of mould arms 26 pivotable about a common **axis** 27 each pivotally carrying an insert 25, each insert carrying a plurality of parison mould halves 12a, each insert also carrying a cam follower 40 located within a cam in the form of slot 41, the slot being curved in a first portion and thereafter straight so that when the arms 26 are opened the inserts initially follow a similar angular path but after passing the lines AA, since the follower 40 is then travelling along the straight part of the cam, the inserts move with an orientation parallel to the lines AA, i.e. parallel to their orientation when positioned at the lines AA. The arms 26 are each moved by oscillating an attached shaft 28. Each shaft 28 is fixed to a bracket 31 which is in turn connected to a bracket 33 on an idler shaft 34 by means of a **lever** 32. The shaft 34 is oscillated by piston- and-cylinder device 36, 38.

(From GB1297704 A)

Inventors

IRWIN G

Latest standardized assignees - inventors removed

OWENS ILLINOIS

Family 5/39 - FAMPAT - ©Questel

Title

(US4339264)

Glassware forming apparatus

Images

Inventors

IRWIN GEORGE W

MUMFORD EUSTACE H

Latest standardized assignees - inventors removed

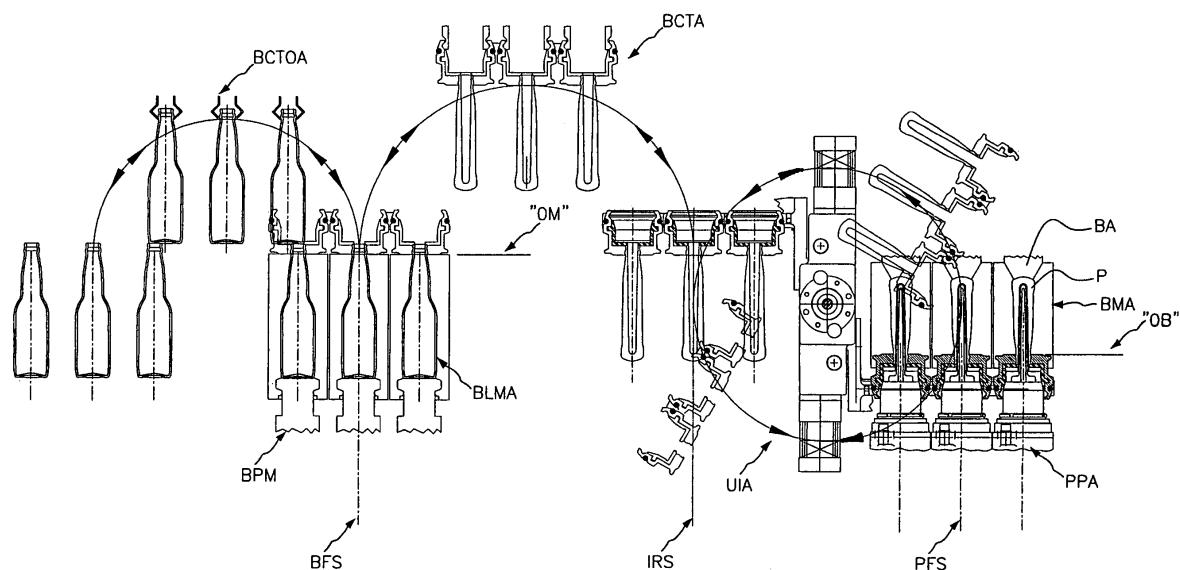
OWENS ILLINOIS

Family 7/39 - FAMPAT - ©Questel

Title

(EP1490306)

Method and machine for the production of hollow glassware

Images**Publication numbers with kind code & date**

JP5325762	B2	2013-07-26	JP5325762
IN256592	B	2013-07-12	IN-256592
CN101948233	B	2013-01-09	CN101948233B
BR0307750	B1	2012-12-11	BR200307750
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JP4990480	B2	2012-05-11	JP4990480
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EP2292565	A3	2011-05-25	EP2292565
EP2292563	A3	2011-05-18	EP2292563
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JP2010132548	A	2010-06-17	JP2010132548



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US7610776	B2	2009-11-03	US7610776				
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TW200400925	A	2004-01-16	TW200400925				
AU2003209600	A1	2003-09-16	AU2003209600				
WO03/74433	A2	2003-09-12	WO200374433				
US20030167799	A1	2003-09-11	US20030167799				

Abstract

(EP1490306)

The invention relates to a method and a machine for the production of hollow glassware, such as bottles, jars, glasses and other glass items, by means of the following processes: blowing-blowing, pressing-blowing, paste mould pressing-blowing or direct pressing, in glassware-forming machines comprising multiple sections. The inventive method comprises the following steps: a first preform or parison is formed in an inverted orientation in a parison mould and a first transferable crown mould which is supported by an inversion apparatus comprising a first arm and a second, diametrically-opposed arm which can be rotated by 180 DEG in an indexed manner, each of said arms supporting a crown mould; the parison supported by the first crown mould is inverted by rotating the first arm by 180 DEG at a vertical orientation towards an intermediary station, thereby enabling the parison to be reheated and stretched in said station, while the second arm with the second crown mould is simultaneously positioned at a parison-forming station in order to perform another parison-forming cycle; the first crown mould supporting the first parison in a vertical orientation is transferred along a semi-circular trajectory from the intermediary station to a blow-moulding station by means of a longitudinal transfer apparatus; the first

parison is removed in a blow mould and the first crown mould is returned to the first arm of the inversion apparatus at the intermediary station in order to be repositioned at the parison-forming station by rotating the first arm by an additional 180 DEG , thereby completing a 360 DEG rotation, while the second arm reaches the intermediary station in order to perform a transfer cycle; the first parison is blown in a blow mould in order to form a finished product; and the finished product in a vertical orientation is transferred along a semi-circular trajectory, once the blow mould is opened, by means of an emptier such that said finished product is positioned on a dead plate for cooling and transferred to a conveyor belt.

Inventors

TIJERINA RAMOS VICTOR

SADA TREVINO ADRIAN

Latest standardized assignees - inventors removed

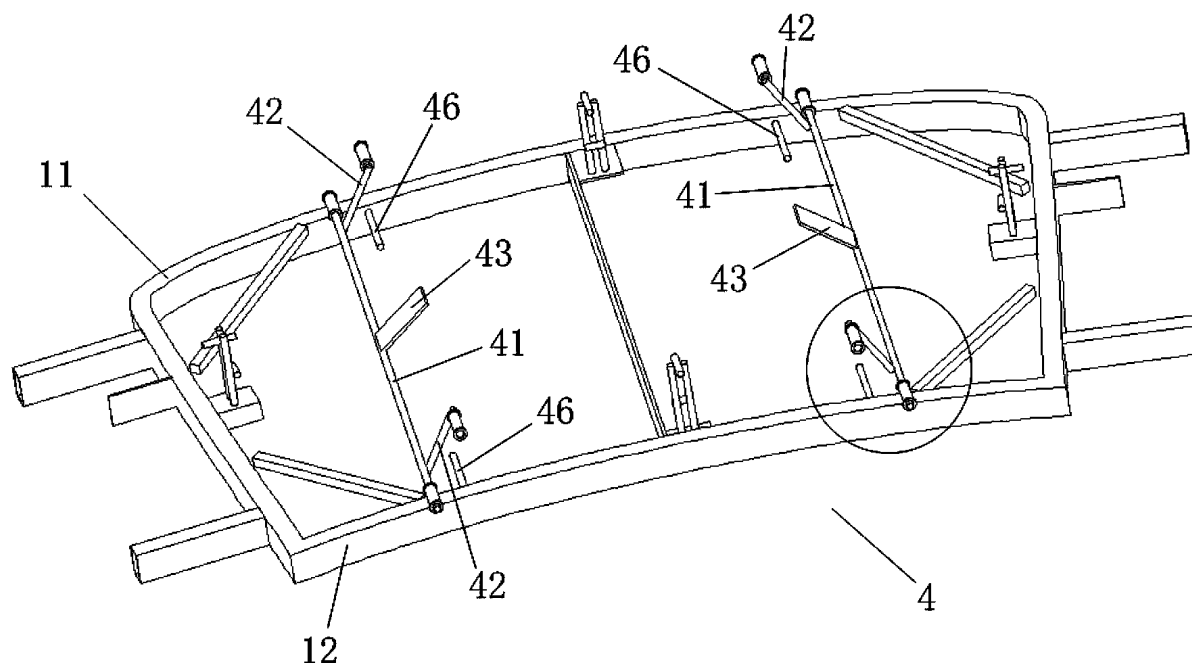
VITRO

Family 8/39 - FAMPAT - ©Questel

Title

(CN102701574B)

Roast-bending die for secondary forming of automobile glass

Images**Publication numbers with kind code & date**

CN102701574	B	2014-04-02	CN102701574B
CN102701574	A	2012-10-03	CN102701574

**Abstract**

(CN102701574)

The patent refers to the field of 'manufacture, shaping, or supplementary processes of glass; mineral or slag wool'. The invention relates to the technical field of roast-bending forming of automobile glass, in particular to a roast-bending die for the secondary forming of automobile glass, and more specifically, the invention relates to the roast-bending die which can be reset automatically and is used for the secondary forming. The roast-bending die comprises a substrate, a first forming frame, a second forming frame and a reset mechanism. According to the roast-bending die for the secondary forming of the automobile glass, the reset mechanism can be matched with a reset top rod of a sheet loading area of the conventional roast-bending furnace by improving the reset mechanism further, so that the roast-bending die is reset quickly, manual operation is avoided, the automation of equipment is realized, the reset speed is improved further, the flow of reset operation and labor are saved, and the sheet loading speed in a roast-bending process and the production efficiency are improved.

Inventors

LIU FU

LI QIFANG

YE QIGUI

Latest standardized assignees - inventors removed

FUYAO GLASS INDUSTRY

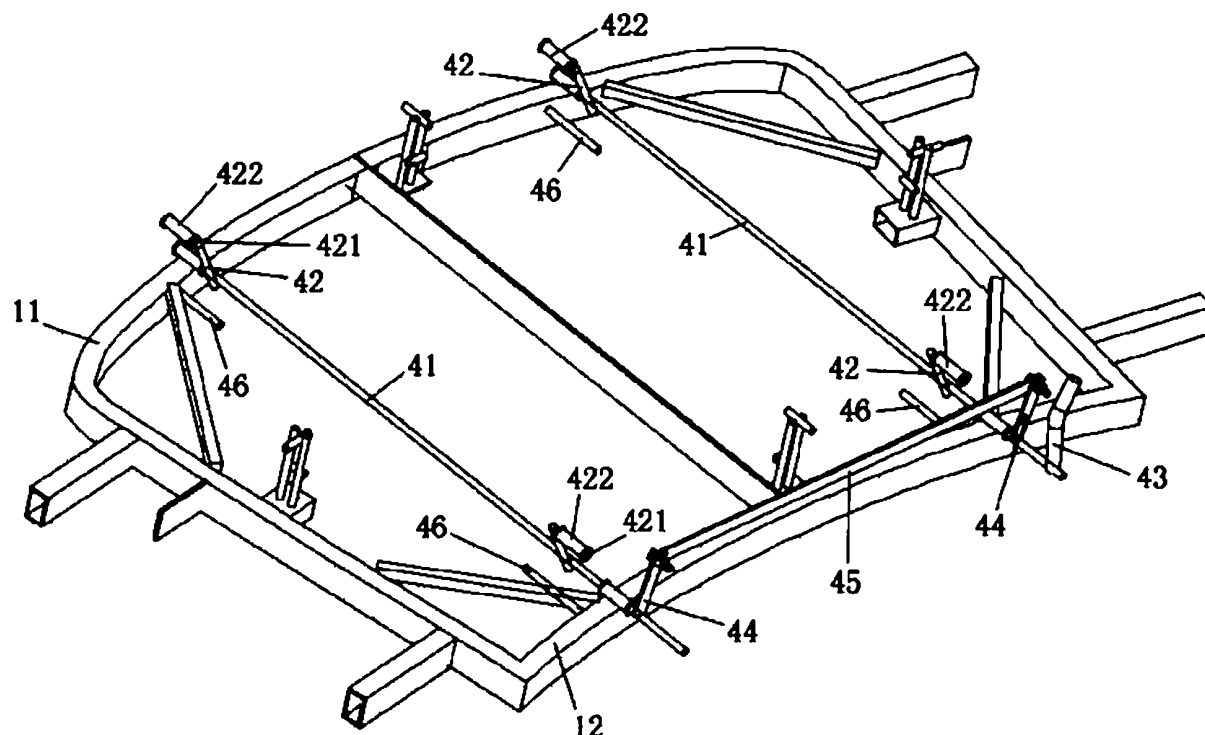
FUJIAN WANDA AUTOMOBILE GLASS INDUSTRIES

Family 9/39 - FAMPAT - ©Questel

Title

(CN102491624B)

Secondary forming baking and bending die of automobile glass

Images**Publication numbers with kind code & date**

CN102491624	B	2013-07-03	CN102491624B
CN102491624	A	2012-06-13	CN102491624

**Abstract**

(CN102491624)

The patent refers to the field of 'manufacture, shaping, or supplementary processes of glass; mineral or slag wool'. The invention relates to the technical field of baking, bending and forming of automobile glass and particularly relates to a secondary forming baking and bending die for automobile glass. The baking and bending die comprises a base, a first forming frame, a second forming frame and a reset mechanism. The secondary forming baking and bending die of the automobile glass, disclosed by the invention, can enable the baking and bending die to realize rapid reset by improving the reset mechanism, improve the reset speed, save the time of reset operation, further avoid the defect that the die is easy to deform when the reset operation is respectively performed on the two sides of the forming frames, meet the requirements of high-efficient reset, improve the piece feeding speed of a baking and bending process step, and improve the production efficiency and the quality of a baked and bent product.

Inventors

LIU FU

Latest standardized assignees - inventors removed

FUYAO GLASS INDUSTRY

FUJIAN WANDA AUTOMOBILE GLASS INDUSTRIES

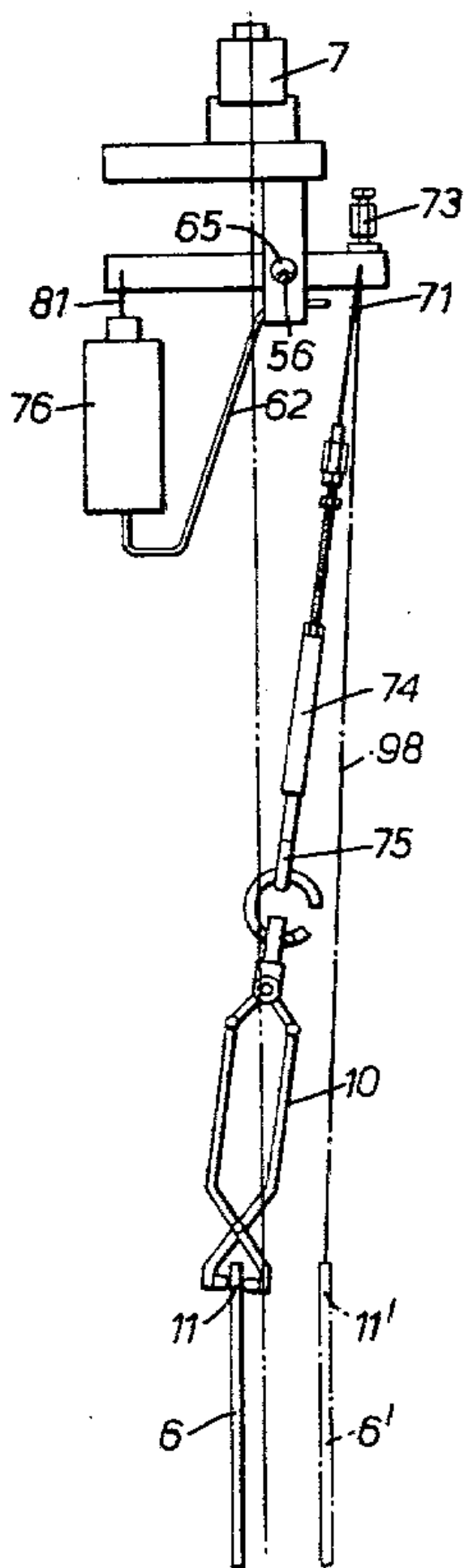
Family 10/39 - FAMPAT - ©Questel

Title

(US4283216)

Producing glass sheets of required curved shape

Images



Publication numbers with kind code & date

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IT1119967	B	1986-03-19	IT1119967
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JPS5580731	A	1980-06-18	JP55080731
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FI793870	A	1980-06-12	FI7903870
NO793987	L	1980-06-12	NO-793987
SE7910154	L	1980-06-12	SE7910154
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IL58908	A	1980-03-31	IL--58908
PT70563	A	1980-01-01	PT--70563
IT7969371	D0	1979-12-10	IT7969371



Abstract

(US4283216)

A glass sheet is suspended from a series of tongs which grip the upper margin of the sheet and apply individual forces at the gripping locations at least some of which have components acting out of the plane of the sheet. The magnitude and direction of each of said forces is selected to ensure that the suspended sheet, when at forming temperature, adapts towards a predetermined curved shape. The sheet may be bent with the forces acting at the gripping points before and/or after bending, and the sheet adopts the required curved shape when it is sufficiently stiffened to be influenced by the remanent forces applied at the gripping points.

Inventors

BRERETON PAUL A

Latest standardized assignees - inventors removed

TRIPLEX SAFETY GLASS

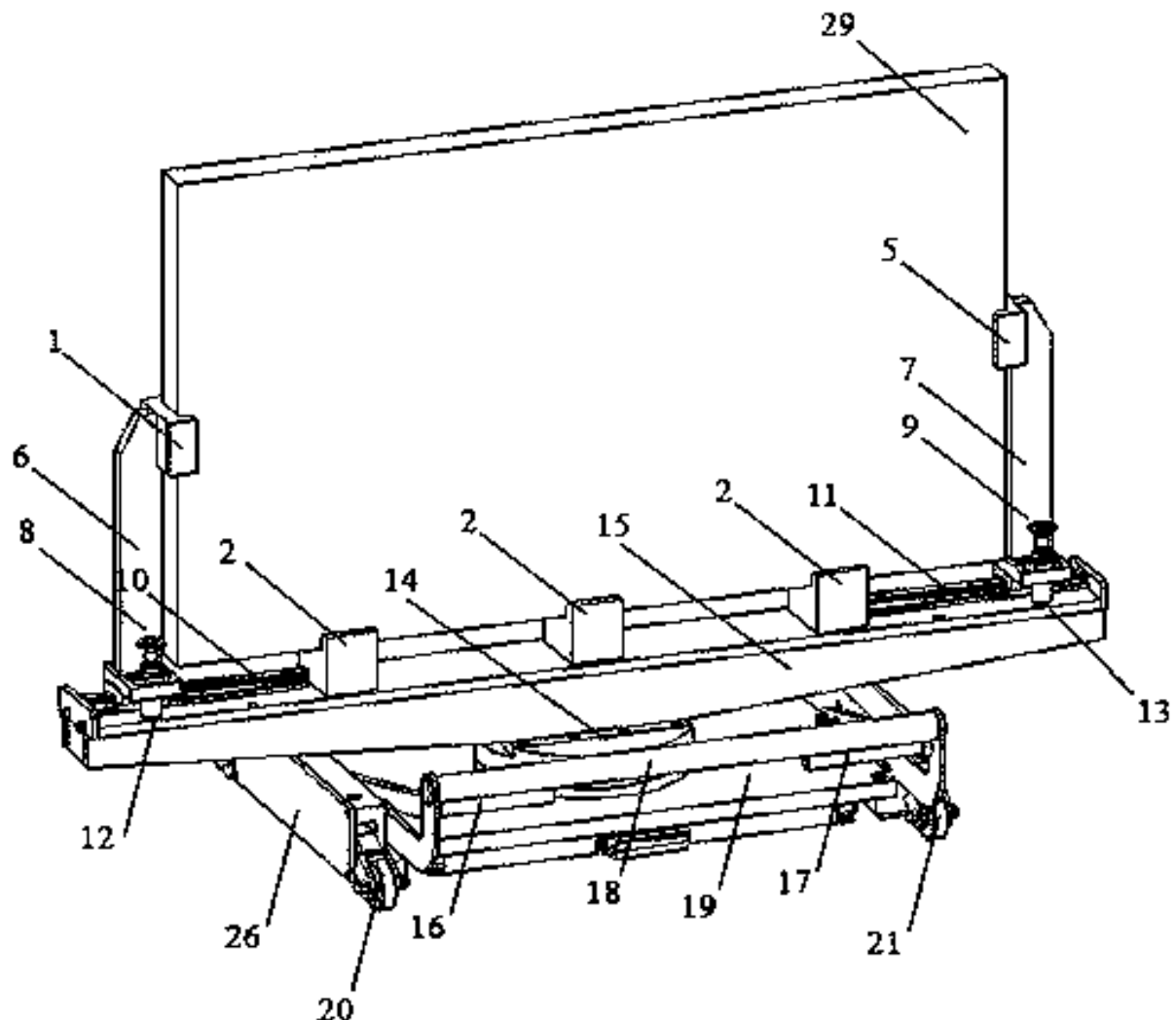
Family 11/39 - FAMPAT - ©Questel

Title

(CN104608075)

Fixture for detecting errors of transmission wave surface of large-sized neodymium glass plate

Images



Publication numbers with kind code & date

CN104608075	B	2016-04-06	CN104608075B
CN104608075	A	2015-05-13	CN104608075

**Abstract**

(CN104608075)

The invention discloses a fixture for detecting errors of a transmission wave surface of a large-sized neodymium glass plate, and relates to a clamping device for detecting errors of transmission wave surfaces of large-sized neodymium glass plates in the technical field of special-purpose fixtures. By the fixture for detecting the errors of the transmission wave surface of the large-sized neodymium glass plate, the large-sized neodymium glass plate can be clamped safely, and a placing angle can be adjusted conveniently and quickly. The fixture comprises a base, wherein two sides of the base are connected with travelling mechanisms; the top of the base is connected with a base rotating plate; the top of the base rotating plate is connected with a support frame; the support frame can rotate around the **axis** of the base along with the base rotating plate; an H-shaped left sliding track, a bottom concave clamping block and an H-shaped right sliding track are sequentially arranged on the top of the support frame from left to right; the H-shaped left sliding track is provided with a left supporting arm capable of moving along the length direction of the H-shaped left sliding track; a left concave clamping block is arranged on the left supporting arm; a right supporting arm capable of moving along the length direction of the H-shaped right sliding track is arranged on the H-shaped right sliding track; and a right concave clamping block is arranged on the right supporting arm.

Inventors

YANG YI

REN HUAN

MA KE

ZHANG LIN

YUAN, Quan

SHI ZHENDONG

MA HUA

MA YURONG

FENG XIAOXUAN

Latest standardized assignees - inventors removed

LASER FUSION RESEARCH CENTER CHINA ACADEMY OF ENGINEERING PHYSICS

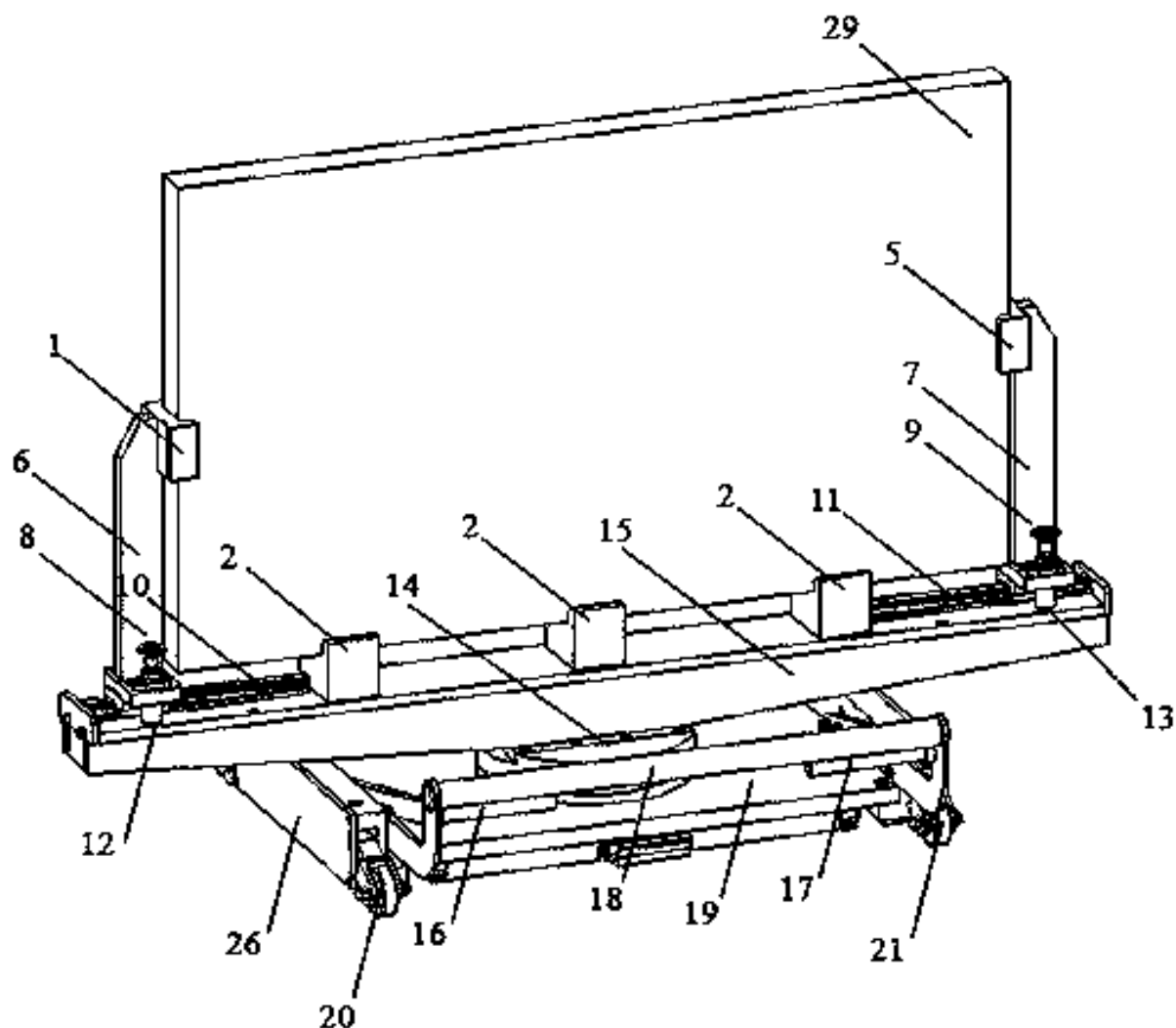
Family 12/39 - FAMPAT - ©Questel

Title

(CN204431116U)

Clamp for error detection of transmitted wave surfaces of large-size neodymium glass sheets

Images



Publication numbers with kind code & date

CN204431116

U 2015-07-01 CN204431116U



Abstract

(CN204431116)

The utility model discloses a clamp for the error detection of transmitted wave surfaces of large-size neodymium glass sheets, and relates to a clamping device for the error detection of the transmitted wave surfaces of large-size neodymium glass sheets in the technical field of special clamps. The clamp for the error detection of transmitted wave surfaces of large-size neodymium glass sheets can safely clamp large-size neodymium glass sheets and can more conveniently and rapidly regulate placing angles. The clamp comprises a base, wherein a rotating disc of the base is connected to the top surface of the base; a supporting rack is connected to the top of the rotating disc of the base; the supporting rack can rotate around the **axis** of the base along with the rotating disc of the base; a left I-shaped slide rail, concave bottom clamping blocks and a right I-shaped slide rail are sequentially arranged on the top surface of the supporting rack from left to right; a left supporting arm which can move in the length direction of the left I-shaped slide rail is arranged on the left I-shaped slide rail, and a left concave clamping block is arranged on the left supporting arm; a right supporting arm which can move in the length direction of the right I-shaped slide rail is arranged on the right I-shaped slide rail, and a right concave clamping block is arranged on the right supporting arm.

Inventors

YANG YI

REN HUAN

MA KE

ZHANG LIN

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SHI ZHENDONG

MA HUA

MA YURONG

FENG XIAOXUAN

Latest standardized assignees - inventors removed

LASER FUSION RESEARCH CENTER CHINA ACADEMY OF ENGINEERING PHYSICS

Family 13/39 - FAMPAT - ©Questel

Title

(EP2560925)

Glassware mold cooling air supply

Images

IN9739/CHENP/2012	A	2014-04-11	IN2012CN09739				
ZA201206407	B	2013-10-30	ZA201206407				
TH126550	A	2013-08-22	TH-126550				
BR112012026692	A1	2013-07-02	BR112012026692				
JP2013527109	A	2013-06-27	JP2013527109				
EP2560925	A1	2013-02-27	EP2560925				
CL2012002792	A1	2013-01-18	CL201202792				
CN102844277	A	2012-12-26	CN102844277				
MX2012011682	A	2012-12-17	MX2012011682				
US8316670	B2	2012-11-27	US8316670				
AR081825	A1	2012-10-24	AR--81825				
AU2011242653	A1	2012-09-27	AU2011242653				
TW201200475	A	2012-01-01	TW201200475				
US20110259054	A1	2011-10-27	US20110259054				
WO2011/133781	A1	2011-10-27	WO2011133781				

Abstract

(EP2560925)

A glassware forming machine includes a machine section box (12) having a cooling air outlet opening (20), at least one mold-carrying arm (22 or 24) disposed above the section box and movable between mold-open and mold-closed positions, and means for delivering cooling air from the outlet opening to the mold arms. The machine in accordance with this aspect of the disclosure is characterized in that the means for delivering cooling air includes a valve plate (40) mounted on the section box to pivot around an **axis** and having a valve plate opening (44) that registers with the outlet opening in the section box. A pressure plate (38) is mounted on the mold-carrying arm overlying the valve plate and has a pressure plate opening (36) that registers with the valve plate opening. A coupling (46, 48) between the valve plate and the pressure plate pivots the valve plate on the section box as a function of motion of the mold-carrying arm between the mold-open and mold-closed positions such that cooling air is continuously fed to the mold-carrying arm through the valve plate and the pressure plate. The coupling (46, 48) preferably is a lost motion coupling such that motion of the mold arm is not imparted to the valve plate during initial motion in either the opening or the closing direction.

Inventors

NEWSOM DANIEL L

GARNES RICHARD H

Latest standardized assignees - inventors removed

OWENS BROCKWAY GLASS CONTAINER

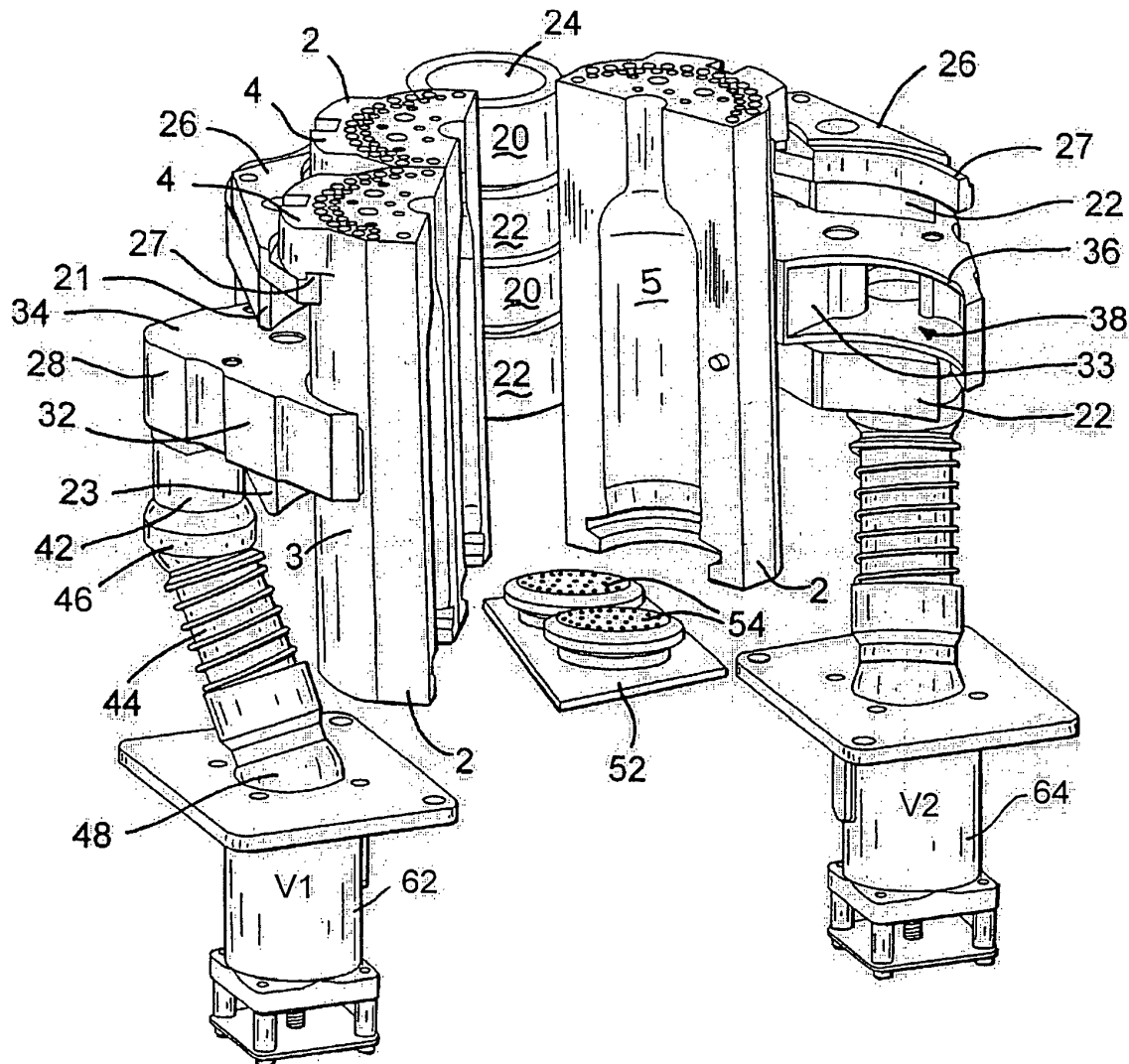
Family 14/39 - FAMPAT - ©Questel

Title

(US8127573)

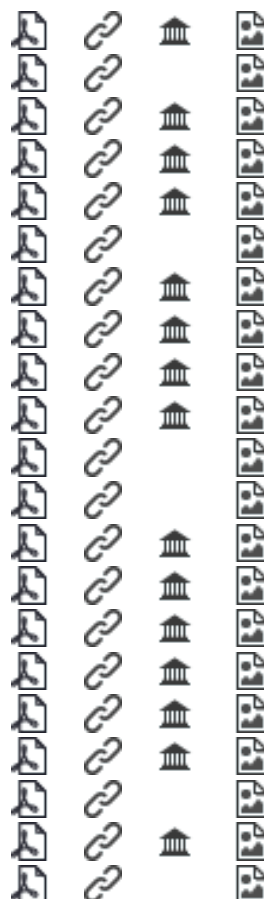
Mold cooling system for I.S. machine

Images



Publication numbers with kind code & date

DE102007012779	B4	2018-05-17	DE102007012779
CZ306832	B6	2017-08-02	CZ-306832
IN260353	B	2014-05-02	IN-260353
FR2899223	B1	2012-07-13	FR2899223
US8127573	B2	2012-03-06	US8127573
RU2443639	C2	2012-02-27	RU2443639
JP4864794	B2	2011-11-18	JP4864794
AU2007201028	B8	2011-11-10	AU2007201028
GB2436833	B	2011-09-21	GB2436833
AU2007201028	B2	2011-07-14	AU2007201028
RU2007112396	A	2008-10-10	RU2007112396
CZ2007185	A3	2008-10-01	CZ200700185
DE102007012779	A1	2007-10-25	DE102007012779
JP2007277083	A	2007-10-25	JP2007277083
AU2007201028	A1	2007-10-18	AU2007201028
GB2436833	A	2007-10-10	GB2436833
FR2899223	A1	2007-10-05	FR2899223
IN0557/DEL/2007	A	2007-10-05	IN2007DE00557
ITMI20070609	A1	2007-10-05	IT2007MI0609
US20070227192	A1	2007-10-04	US20070227192
GB0705041	D0	2007-04-25	GB200705041



Abstract

(US20070227192)

A mold cooling system for an I.S. machine wherein cooling air is supplied to vertical cooling holes defined in the molds either at their ends or midway along their length.

Inventors

MEYER WILLI

MUELLER THOMAS

Latest standardized assignees - inventors removed

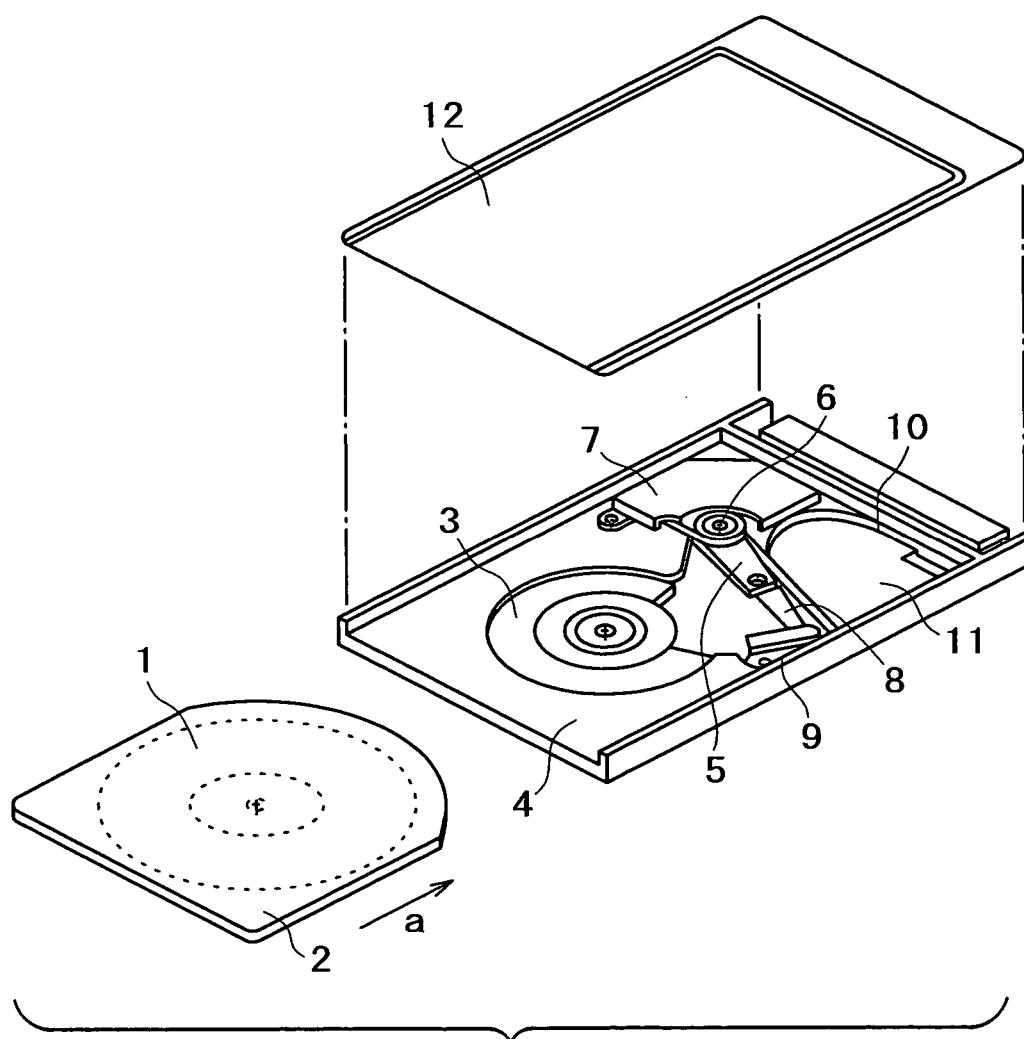
EMHART GLASS

Family 15/39 - FAMPAT - ©Questel

Title

(EP1513141)

Optical pickup apparatus, optical disk apparatus and optical pickup adjustment method

Images**Publication numbers with kind code & date**

JP4239762	B2	2009-01-09	JP4239762
EP1513141	A3	2008-01-09	EP1513141
CN1310231	C	2007-04-11	CN1310231C
US20050094505	A1	2005-05-05	US20050094505
TW200514065	A	2005-04-16	TW200514065
JP2005085290	A	2005-03-31	JP2005085290



JP2005085299	A	2005-03-31	JP2005085299				
JP2005085310	A	2005-03-31	JP2005085310				
CN1598945	A	2005-03-23	CN1598945				
KR20050024219	A	2005-03-10	KR20050024219				
EP1513141	A2	2005-03-09	EP1513141				

Abstract

(EP1513141)

An optical pickup apparatus is disclosed which can be formed in a minimized thickness while realizing improvement in focusing servo performance, improvement in heat radiation, reduction of the voltage, reduction in number of parts, and reduction of the cost. A swing arm having an optical pickup includes an optical pickup base plate (22) formed from a thin plate member of an iron alloy or a copper alloy, and a hole perforated in the optical pickup base plate (22) is closed up from the opposite sides with a silicon substrate and a glass cover (16) to form an enclosed space. An integrated optical pickup unit (17) including a semiconductor laser (27) and an optical system integrated on the silicon substrate is disposed in the enclosed space.

Inventors

KANAZAWA TAKAKIYO

Latest standardized assignees - inventors removed

SONY

Family 16/39 - FAMPAT - ©Questel

Title

(US4913716)

Plunger change apparatus and method

Images

Abstract

(US4913716)

A glass face plate press is provided with a semi-automatic, plunger changing apparatus. The changing apparatus takes the form of a movable plunger supporting head and carriage that is mounted adjacent the press station for movement into and out of position to insert a new plunger on the plunger clamping mechanism of the press. The press has a receiving box into which a plunger support plate is inserted prior to clamping and locking of the plate and supported plunger to the press.

Inventors

RAETHER SCOTT E

Latest standardized assignees - inventors removed

OI NEG TV PRODUCTS

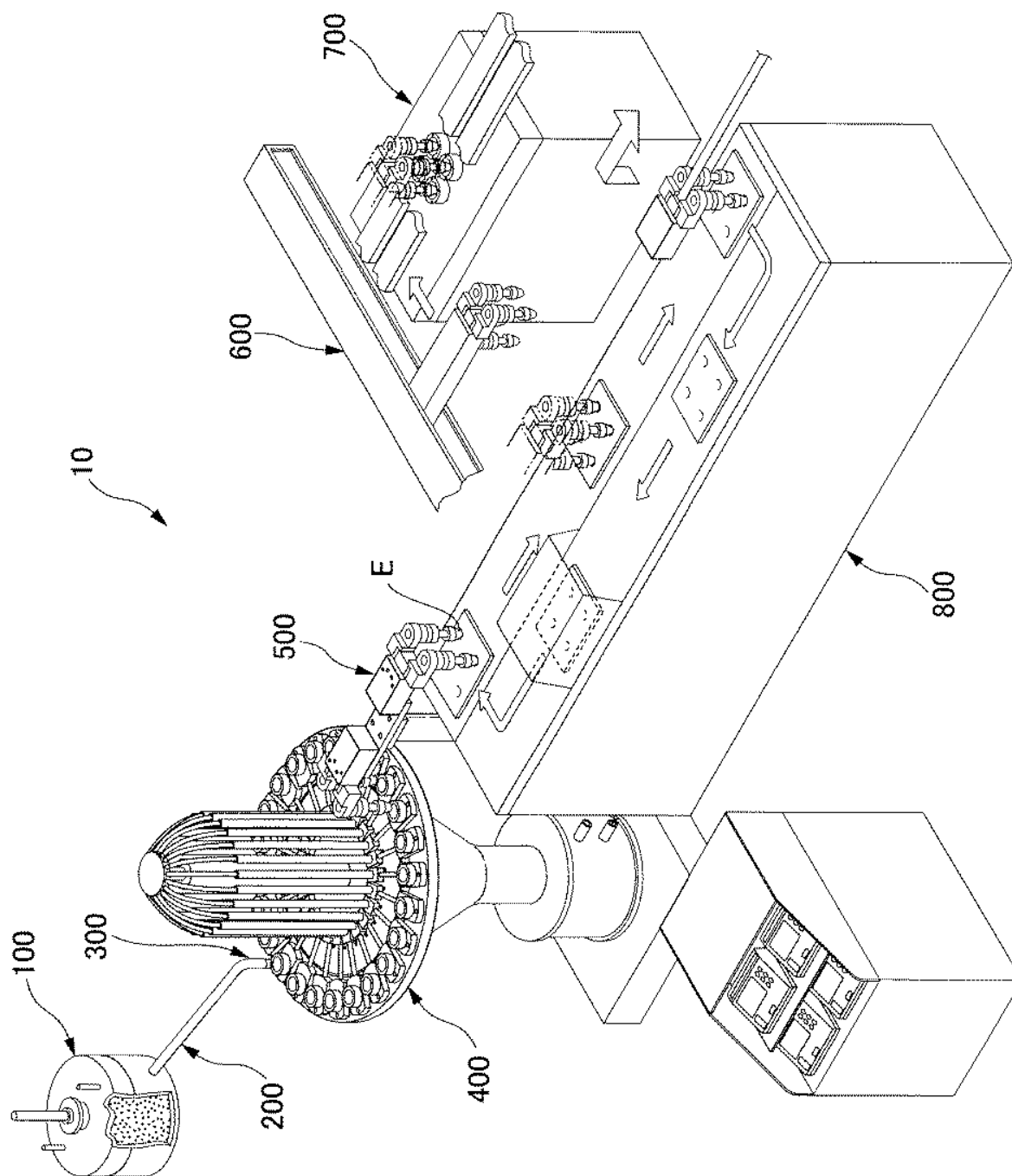
Family 17/39 - FAMPAT - ©Questel

Title

(JP2007254248)

Glass molding production device and method for producing glass molding

Images



Publication numbers with kind code & date

TWI398413	B	2013-06-11	TWI398413
JP4836627	B2	2011-10-07	JP4836627
CN101045603	B	2011-07-27	CN101045603B



TW200804205	A	2008-01-16	TW200804205
JP2007254248	A	2007-10-04	JP2007254248
CN101045603	A	2007-10-03	CN101045603

**Abstract**

(JP2007254248)

PROBLEM TO BE SOLVED: To provide a glass molding production device where raw materials are melted so as to produce glass moldings, and to provide a method for producing glass moldings.

SOLUTION: The glass molding production device 10 is provided with: a melting apparatus 100 comprising a melting tank of melting raw materials so as to be molten glass and an induction path 200 connected to the melting tank and making the molten glass to flow out from the melting tank; a flowing-down apparatus 300 of flowing down the molten glass made to flow out via the induction path 200; a glass molding apparatus 400 having a plurality of molding dies of molding the molten glass made to flow down; a carrying apparatus 800 of carrying the glass moldings molded by each of the plurality of molding dies; and a first transferring apparatus 500 of transferring the glass moldings to the carrying apparatus 800 one by one.

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Inventors

IGUSA MASAACKI

KISHI KAZUYUKI

KOJIMA TOMIO

TAJIMA MOTOHIRO

Makoto Kurita

Cedar Kid

Latest standardized assignees - inventors removed

OHARA

Family 18/39 - FAMPAT - ©Questel

Title

(US5938809)

I.S. machine

Images

US5938809	A	1999-08-17	US5938809
JP11217225	A	1999-08-10	JP11217225
CZ357298	A3	1999-07-14	CZ9803572
AU9051198	A	1999-05-27	AU9890511
DE19851098	A1	1999-05-12	DE19851098
GB2331096	A	1999-05-12	GB2331096
FR2770506	A1	1999-05-07	FR2770506
ITMI982394	A1	1999-05-07	IT98MI2394
FR2770506	A	1999-04-30	FR2770506
GB9824196	D0	1998-12-30	GB9824196



Abstract

(US5938809)

An I.S. machine has a plurality of individual sections arranged in side by side relation. Each section has a blank station for forming a parison from a gob of molten glass, and a blow station for forming a parison into a bottle. An invert and neck ring holder mechanism is located between these stations for transferring a parison between from one station to the other. Each station has a mold opening and closing mechanism which has a pair of opposed mold support mechanisms supported for linear displacement between a retracted position and an advanced position. Each mold support mechanism is supported by a first shaft on one side of the center of the mold opening and closing mechanism, proximate the invert and neck ring holder mechanism, extending perpendicularly to the engagement plane, and by a second shaft on the other side of the center of the mold opening and closing mechanism, remote from the invert and neck ring holder mechanism, extending perpendicularly to the engagement plane. The second shaft is second interconnected with the mold support mechanism enabling relative motion between the mold support mechanism and the second shaft in the parison transfer direction so that expansion of the mold support mechanism will take place in the transfer direction away from the invert and neck ring holder mechanism.

Inventors

MUNGOVAN JOHN P

VOISINE GARY R

LOVELL WALTER E

BORBONE JOSEPH A

PINKERTON STEVEN J

ROBERTS DOUGLAS J

SLOCUM ALEXANDER H

Latest standardized assignees - inventors removed

EMHART GLASS

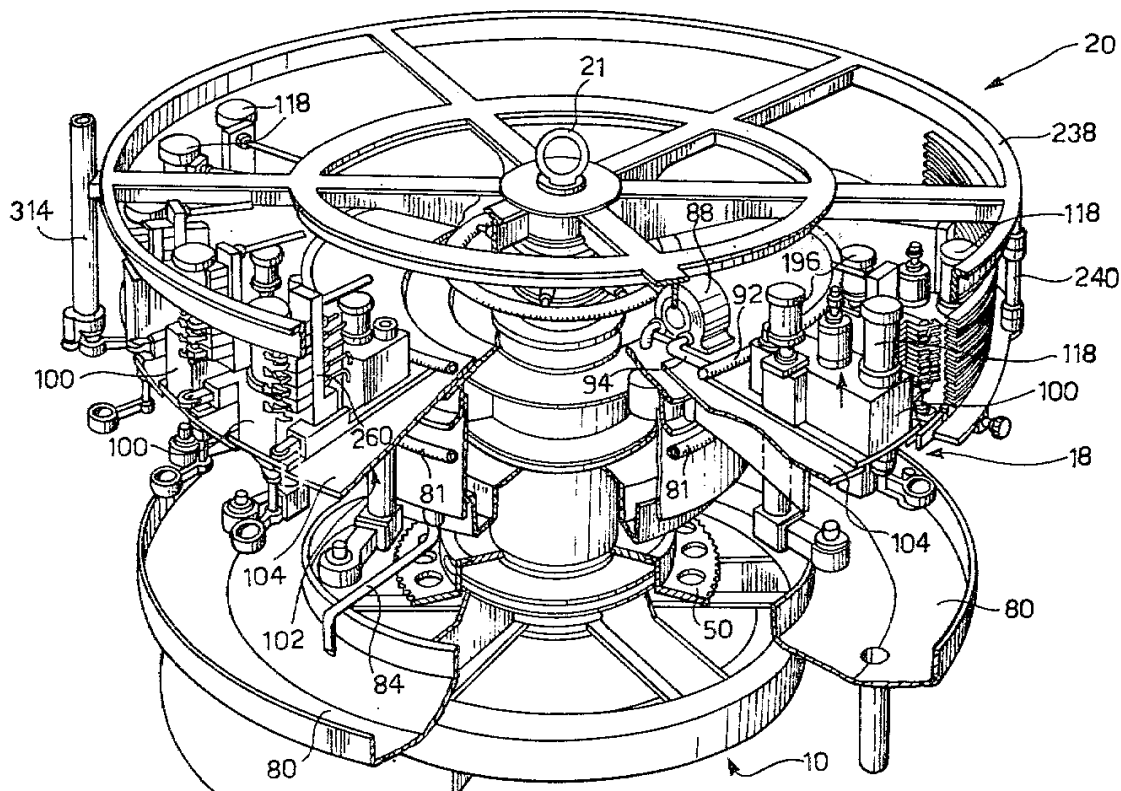
Family 19/39 - FAMPAT - ©Questel

Title

(US4276075)

Machine for the manufacture of glass articles by blow moulding glass

Images



Publication numbers with kind code & date

DE2946382	C2	1990-05-10	DE2946382
IT1108799	B	1985-12-09	IT1108799
FR2442800	B1	1985-08-30	FR2442800
US4276075	A	1981-06-30	US4276075
FR2442800	A1	1980-06-27	FR2442800
DE2946382	A1	1980-06-19	DE2946382
IT7869747	D0	1978-11-30	IT7869747



Abstract

(US4276075)

A machine for the manufacture of glass articles by blow moulding comprises a plurality of article-forming assemblies mounted in a circular array on a rotatable carousel. Each assembly has a number of operating means which cooperate to shape a gob of molten glass, first by rough-blanking using a plunger, and then by blow-moulding, into the required article. Control of said operating means is effected by a set of primary control members adjustably positioned in fixed locations around the carousel, and a respective set of carousel-mounted secondary control members associated with each assembly. As the carousel rotates, the secondary control members are moved past and influenced by corresponding ones of the primary control members and, as a result, the operating means of each assembly are appropriately controlled to shape the required article.

Inventors

OLIVOTTO VANFRIDO

Latest standardized assignees - inventors removed

OLIVOTTO VETROMECC

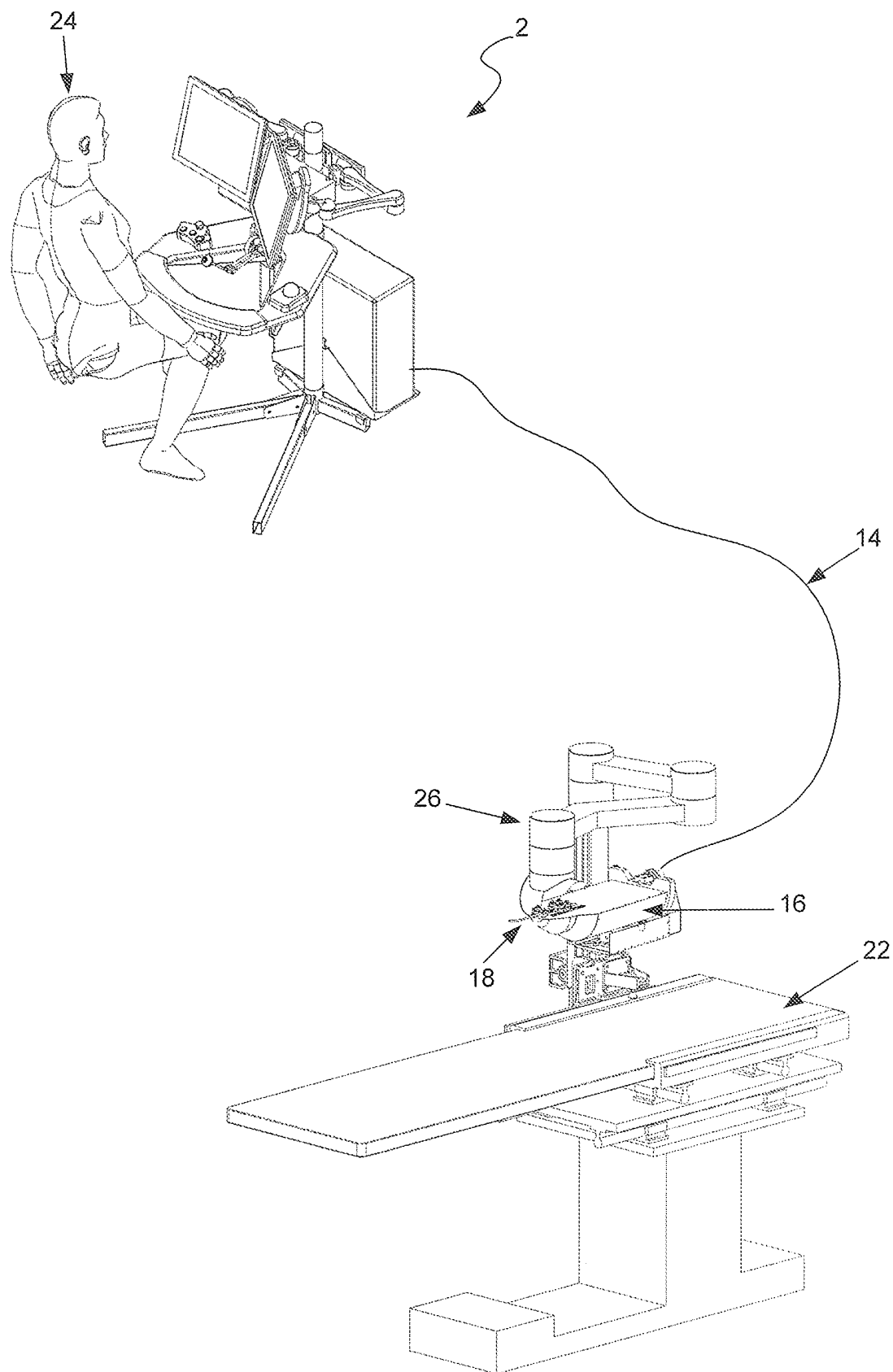
Family 20/39 - FAMPAT - ©Questel

Title

(EP1890630)

Robotic catheter system

Images

**Publication numbers with kind code & date**

US8968333	B2	2015-03-03	US8968333
US7963288	B2	2011-06-21	US7963288
US20100308195	A1	2010-12-09	US20100308195
US7789874	B2	2010-09-07	US7789874
JP2008541797	A	2008-11-27	JP2008541797
EP1890630	A2	2008-02-27	EP1890630



WO2007/005757	A3	2007-05-18	WO200705757				
WO2006/119495	A3	2007-03-15	WO2006119495				
WO2007/005757	A2	2007-01-11	WO200705757				
US20060276775	A1	2006-12-07	US20060276775				
US20060253108	A1	2006-11-09	US20060253108				
WO2006/119495	A2	2006-11-09	WO2006119495				

Abstract

(EP1890630)

A robotic catheter system (32) includes a controller with a master input device (12) . An instrument driver (116) is in communication with the controller and has a guide instrument interface including a plurality of guide instrument drive elements responsive to control signals generated, at least in part , by the master input device . An elongate guide instrument (18 , 30 , 174 , 176 , 178 , 180 , 182 , 184 , 186) has a base (44 , 48) , distal end, and a working lumen , wherein the guide instrument base is operatively coupled to the guide instrument interface . The guide instrument includes a plurality of guide instrument control elements (192) operatively coupled to respective guide drive elements and secured to the distal end of the guide instrument . The guide instrument control elements are axially moveable relative to the guide instrument such that movement of the guide instrument distal end may be controlled by the master input device .

Inventors

ROSENBERG CRAIG R

MOORE DAVID F

SCHLESINGER RANDALL L

MOLL FREDERIC H

WALLACE DANIEL T

Latest standardized assignees - inventors removed

AURIS HEALTH

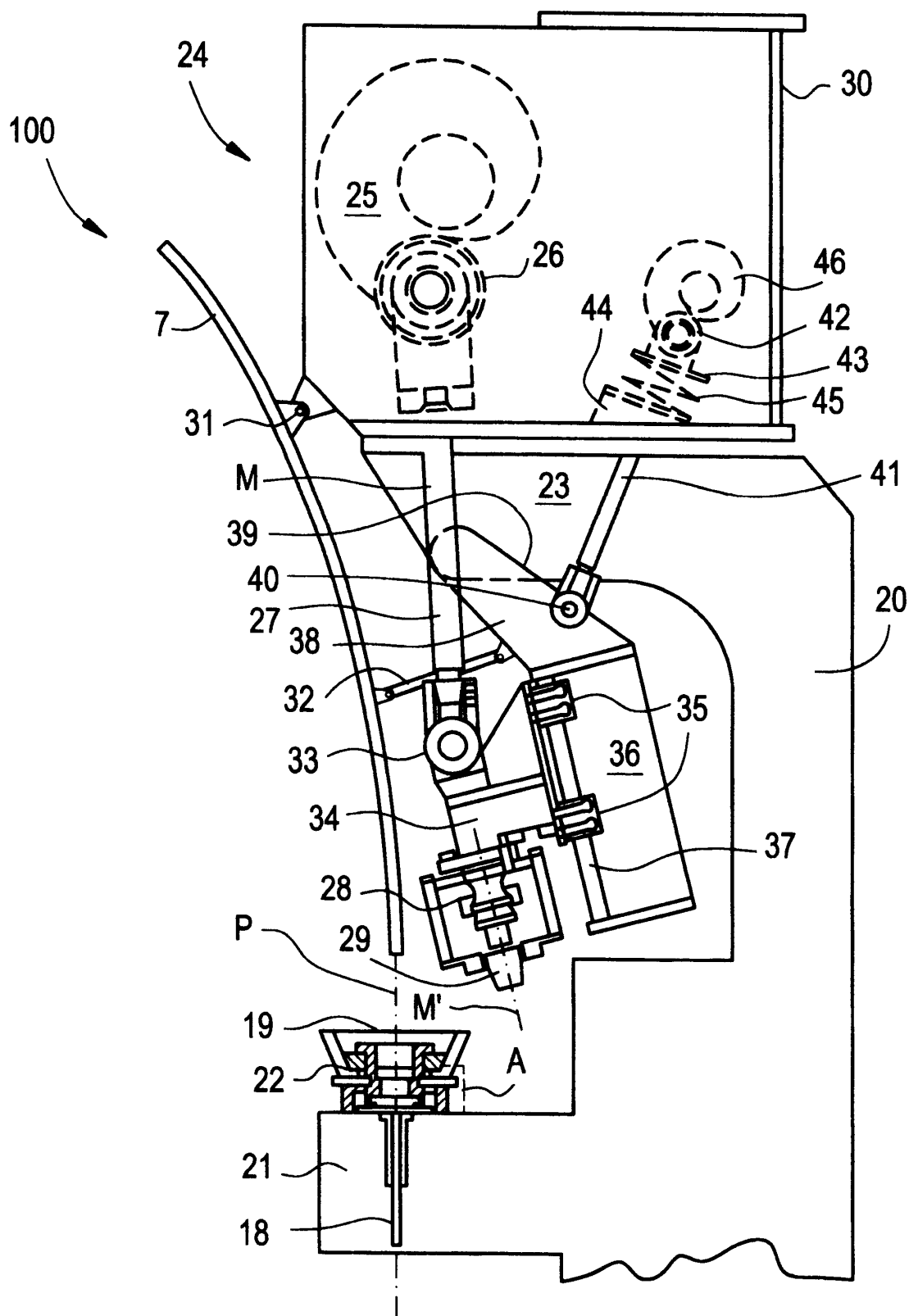
Family 21/39 - FAMPAT - ©Questel

Title

(EP-787111)

Process for manufacturing moulded glass articles using a press process, and a device which is especially suitable for carrying out the process

Images



Publication numbers with kind code & date

JP3210347	B2	2001-09-17	JP3210347
US6282922	B1	2001-09-04	US6282922
KR100225663	B1	1999-10-15	KR100225663
DE59502782	D1	1998-08-13	DE59502782
EP0787111	B1	1998-07-08	EP-787111
JPH10504274	A	1998-04-28	JP10504274



KR19977006211	A	1997-11-03	KR19977006211				
KR970706211	A	1997-11-03	KR19970706211				
CN1161682	A	1997-10-08	CN1161682				
EP0787111	A1	1997-08-06	EP-787111				
WO96/12681	A1	1996-05-02	WO9612681				
DE9416814	U1	1996-02-15	DE9416814				

Abstract

(EP0787111)

In the process according to the invention, it is proposed that a divided quantity of molten glass required for manufacturing moulded glass articles by the press process should be fed into a press mould before insertion of the die while the press mould is in the press station and the moulded glass article should be removed from the press mould after the die has been withdrawn while the press mould is still in the press station. With this process, it is possible to dispense with a mould conveyor. The invention also concerns a device suitable for carrying out said process, in which the die (29) can pivot sideways from its starting position outside the press mould (22) about an **axis** which is perpendicular to the central **axis** (M') of the die (29).

Inventors

POETING KLAUS

Latest standardized assignees - inventors removed

POTING

Family 22/39 - FAMPAT - ©Questel

Title

(EP-585232)

Channel device for a glass moulding machine.

Images

EP0654451	B1	1998-01-21	EP-654451				
JP2680193	B2	1997-11-19	JP2680193				
US5599370	A	1997-02-04	US5599370				
ES2080487	T3	1996-02-01	ES2080487				
DE59204514	D1	1996-01-11	DE59204514				
AT130830	T	1995-12-15	ATE130830				
EP0585232	B1	1995-11-29	EP-585232				
EP0650935	A3	1995-08-09	EP-650935				
EP0654451	A3	1995-08-09	EP-654451				
EP0654451	A2	1995-05-24	EP-654451				
EP0650935	A2	1995-05-03	EP-650935				
JPH06503299	A	1994-04-14	JP06503299				
EP0585232	A1	1994-03-09	EP-585232				
DE4116593	C1	1993-01-07	DE4116593				
WO92/20631	A1	1992-11-26	WO9220631				
CA2099361	A1	1992-11-23	CA2099361				
MX9202329	A	1992-11-01	MX9202329				

Abstract

(EP0585232)

Drops of molten glass fall in succession into a scoop channel (8) pivotable about a vertical **axis** which supplies several channel systems (3), e.g. of an I.S. glass moulding machine, with drops in succession. The drop moves along a path (13) from the scoop channel (8) freely on a sliding body (9), then into a longitudinal channel (10) and then again freely into a downwardly curved end channel (11). The end channel (11) delivers the drop in such a way that its longitudinal **axis** runs coaxially with the longitudinal **axis** (31) of a mould (4) to be filled. The sliding body (9) is rigidly supported on the machine. The upper end (18) of the longitudinal channel (10) is supported on the sliding body (9) via a universal joint (38). The lower end (23) of the longitudinal channel (10) is guided in a vertical duct (42) of the end channel (11) and can be raised and lowered by an adjusting device (43).

Inventors

STRUCKMEIER MANFRED

GRAEFE ANDREAS

MOELLER ECKHARD

Latest standardized assignees - inventors removed

HEYE HOLDING

Family 23/39 - FAMPAT - ©Questel

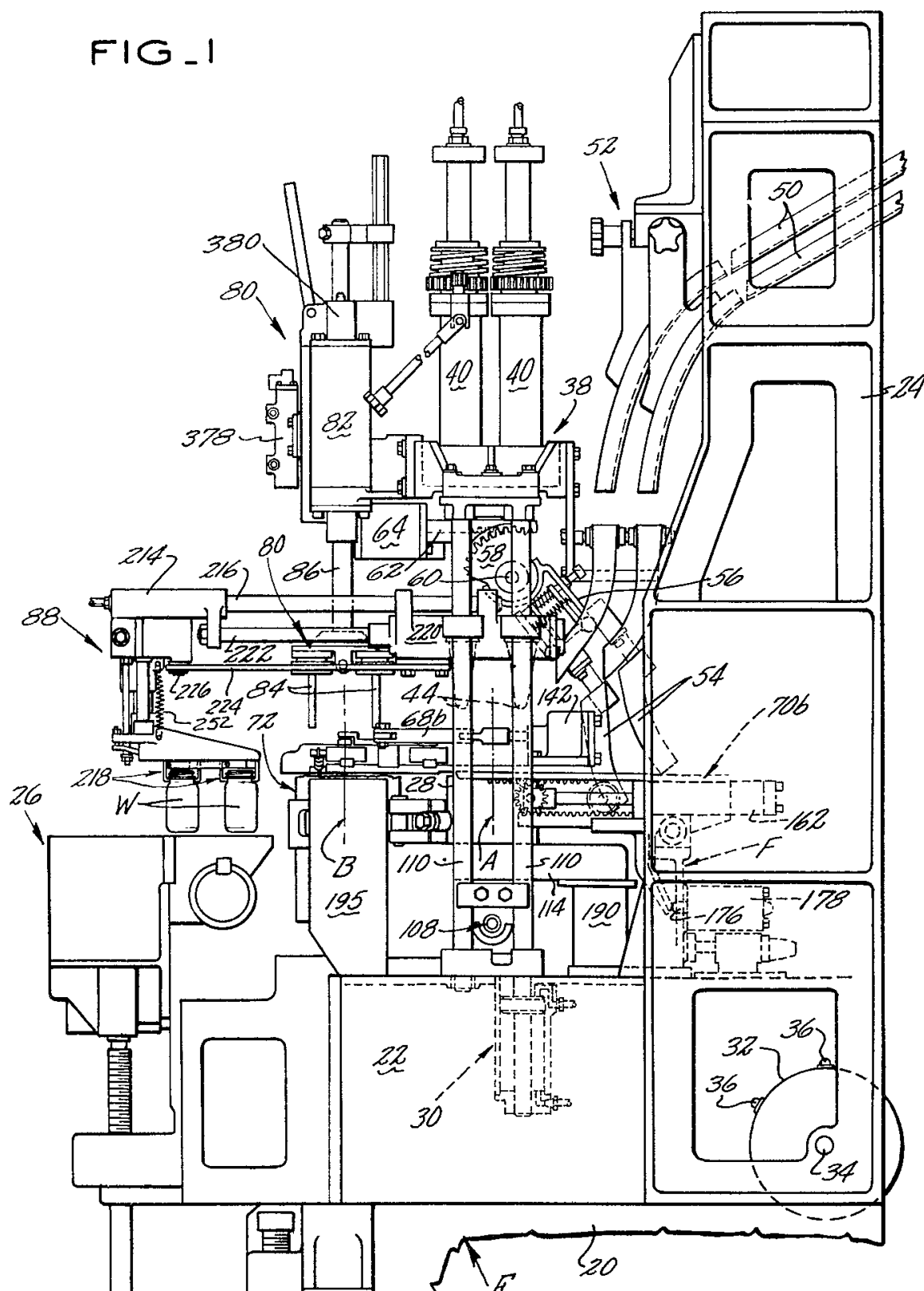
Title

(US3223511)

Glassware forming machine

Images

FIG. 1



Publication numbers with kind code & date

US3223511	A	1965-12-14	US3223511
GB983592	A	1965-02-17	GB-983592



CH383563

A 1964-10-31 CH-383563

FR1328562

A 1963-05-31 FR1328562

**Abstract**

(US3223511)

A glassware forming machine comprises a first station A with press moulds 46 for forming two parisons, a second, forwardly spaced station B having blow moulds 78 for forming finished glassware and a first and a second separable ring unit 66a and 66b each of which carries a pair of parisons from station A to station B along a generally horizontal path and thereafter moves upwardly, rearwardly and downwardly to interchange with the other unit, and means for opening and closing the separable ring units. The operation of the machine is timed by spaced dogs 36 on a rotating drum 32 which engage valves in a

valve bank 302 receiving air from a pressurized source S and thereby operates various control valves in the machine. At the beginning of a cycle the conduit 304 is vented to operate the fluid motor 64 via a two-way control valve 306 and bring the glass feeder shoot sections 54 into position over the press moulds 46 at the station A. Line 328 is vented to operate the neck ring opening cylinder 142 and thereby close the neck ring unit 66a by means of springs 140. At the same time air cylinder 178 is operated to push the arm 174 and operate the rack-and-pinion mechanism 158, 166, 168 to tilt the plate 138 about the shaft 172 and raise the neck ring unit 66a. Line 314 is then vented to operate a fluid motor 162 via a two-way control valve 316 thereby retracting the neck ring unit to the station A, passing over the neck ring unit 66b and being lowered when the air in cylinder 178 is exhausted. Meanwhile, the blow moulds at station B are closed by raising the bottom plates 76 in two stages by venting conduits 332, 334 thereby operating air cylinders 204, 206 and venting lines 336, 340 to bring together blow mould halves 74a and 74b by means of control valve 338 and air cylinder 200. The neck ring unit 66b carrying parisons P by means of engagement with the thread 126 formed during pressing is then lowered on to the blow moulds by venting line 350 to air cylinder 180 and the blow head 80 is lowered to insert the blow nozzles 84 through the necking unit 66b by actuation of two-way spring-biased control valve 378 which supplies air to the blow head cylinder 82. At the same time a valve 380 is opened to supply air under pressure to the nozzles 84 and blow the parisons into final shape. The blow moulds are cooled at the same time by means of air directed through passages in the blow mould arms 114 and through hollow posts 195 in the machine table 22. Meanwhile the double press mould carrier 28 is elevated to the neck ring unit 66a by means of a control valve 354 to receive the press head 38 and the anvils 102 for supporting the press moulds against the pressure of the press head are spring-biased into position by means of air cylinders 108 actuated by air pressure

from the conduit 360. The press head 38 is lowered to press parisons in the glass charges by venting a conduit 362 which, if the anvils are set up operates a valve 112, venting a conduit 364 which if the neck ring unit 66a is down in position operates a further valve 188 to vent a conduit 366 which operates a spring-biased control valve 368 and a further conduit 370 to finally operate the press head cylinders 40. The press moulds are cooled at the same time by air flow from the blow mould support arms 114. The blow head and the press head are depressed together and remain in position for about the same length of time. The blow head is retracted and the blow mould opened by venting the conduits 376, 336 so as to reverse the control valves 378, 338 and the neck ring unit 66b is opened by pressurizing cylinder 142, releasing the glassware to rest on the plates 76. Air is supplied to the tilt cylinder 178 via line 330 to elevate ring unit 66b and to the cylinder 204, lowering the plates 76 carrying glassware W. The cylinder 220 is then actuated to operate the take-out mechanism 88, the gripper heads 218 engage the top of the glassware W, the pressure in cylinder 206 is released to further lower the plates 76 so as to clear the glassware and pressure is provided in the take-out cylinder 220 to thrust the take-out mechanism over the conveyer 90, when the glassware is released. At the same time the press head 38 is retracted by operating the control valve 368 and the press mould carrier 28 is lowered from the parisons which are hanging from the neck ring unit 66a by actuating the air cylinders 108 to remove the anvils 102 and the control valve 354 to operate the press mould elevating cylinder 30. The neck ring unit 66a is then transferred from station A to station B by operating slide cylinder 162 by the valve 316 and the cylinder 180 is also operated so that the neck ring unit 66a is slightly raised to clear the tops of the blow moulds. The glass feeder shoot sections are meanwhile swung into operative position by actuation of the cylinder 64, completing one cycle of operations.

(From GB983592 A)

Inventors

ROWE GEORGE E

Latest standardized assignees - inventors removed

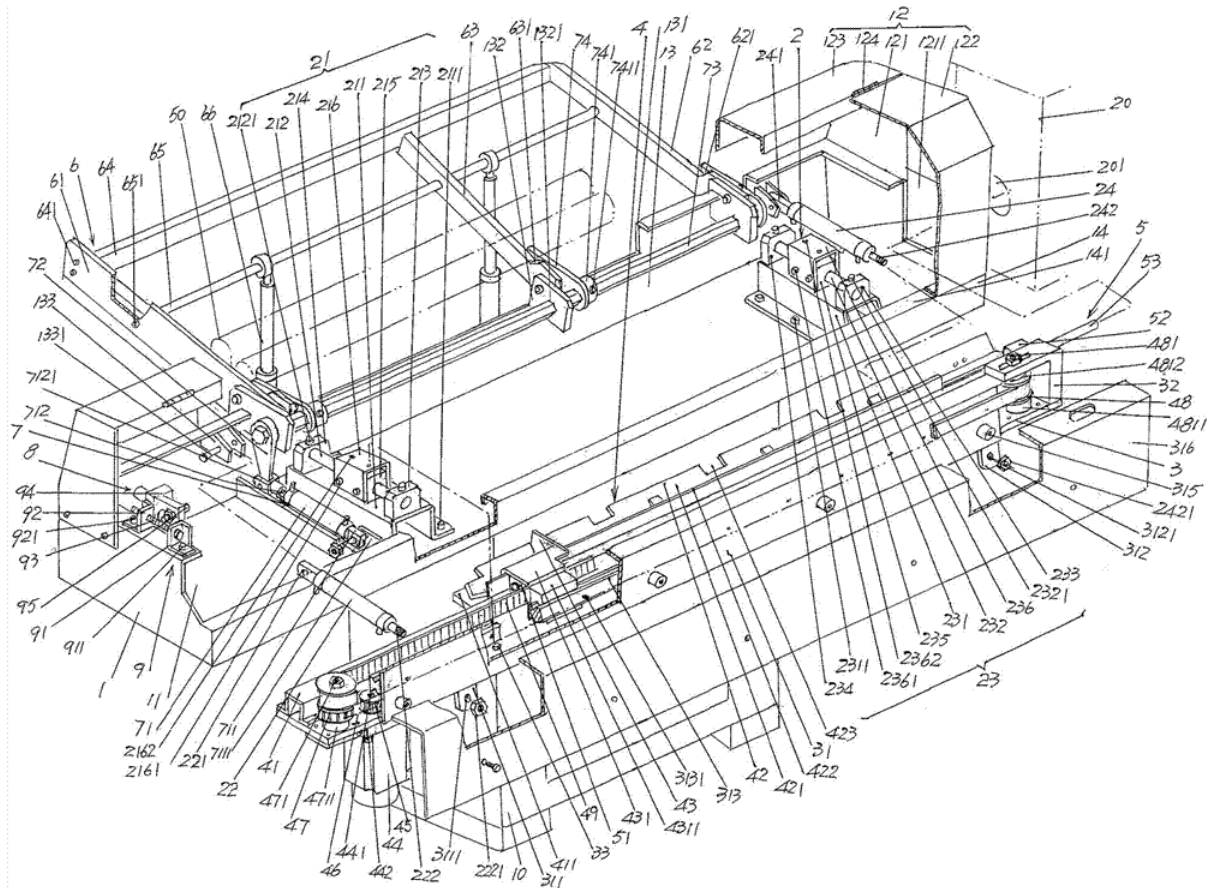
EMHART

Family 24/39 - FAMPAT - ©Questel

Title

(CN208450617U)

Metal bar material autoloader

Images**Publication numbers with kind code & date**

CN208450617 U 2019-02-01 CN208450617U

**Abstract**

(CN208450617)

The utility model provides a metal bar material autoloader, belongs to lathe auxiliary facilities technical field. Including engine case base, the machine case is established on engine case base, sets organic box cover on the quick-witted case and corresponding to the position in quick-witted case chamber, has offered the bar propelling movement chamber of stepping down on the wall body of the quick-witted box cover right side and corresponding to the position of introducing mouthful, and the length direction's of lateral wall middle part constitutes the breach of stepping down behind the quick-witted case, reciprocating motion drive mechanism establishes at quick-witted case intracavity around removing the bottom plate, removes the bottom plate and establishes on removing bottom plate front and back reciprocating motion drive mechanism, bar push mechanism establishes on removing the bottom plate, and bar workpiece length compensation advancing mechanism and bar push mechanism are connected, material preparation rack, the supporting on the terrace and with quick-witted case rear side wall connection, a feed mechanism who is used for transferring to the metal bar material on the material preparation rack bar push mechanism, this feed mechanism establish at quick-witted case intracavity and extend extremely material preparation rack. The working strength is lightened. The processing efficiency is improved. Automatic material loading is effectual.

Inventors

YAN QINGBAO

SU QIAN

HUANG XIAOLEI

HE ZHONG

HAN ZHIQIANG

YU WEIFENG

Latest standardized assignees - inventors removed

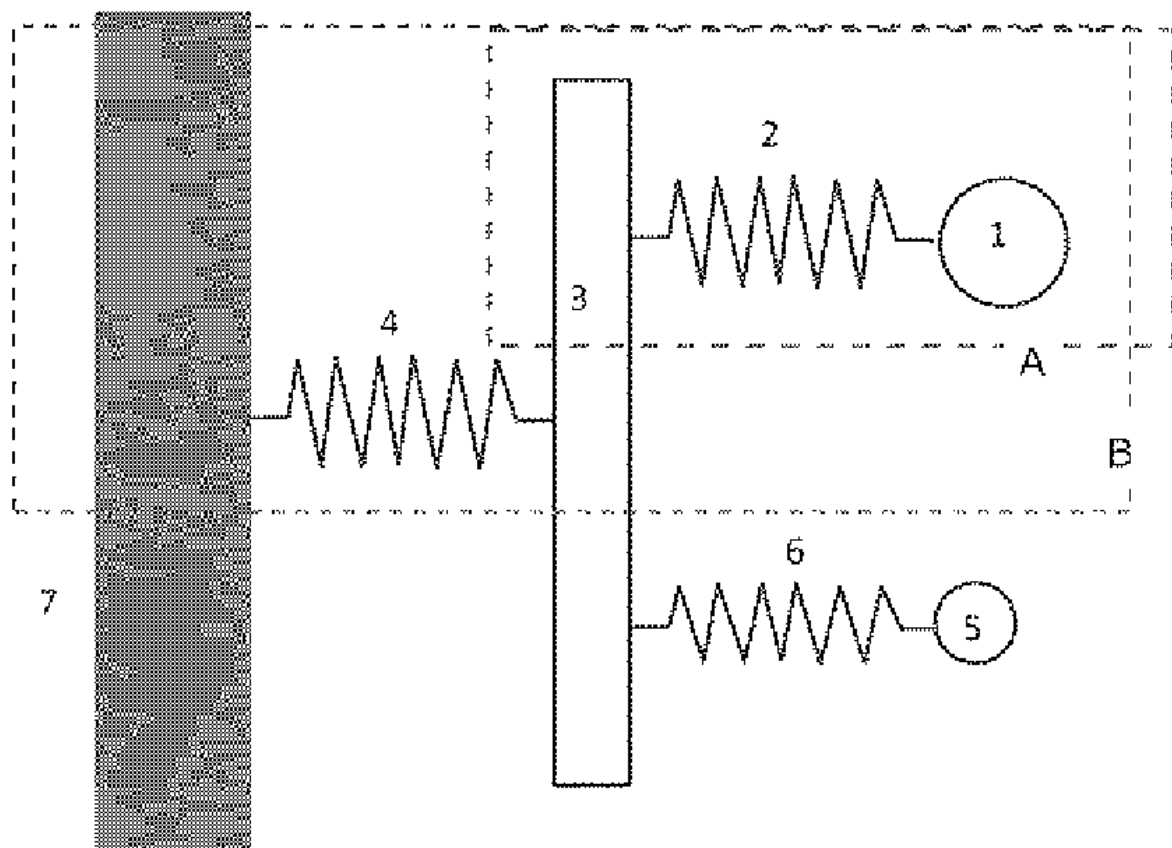
CHANGSHU JIANHUA DIES SETS

Family 25/39 - FAMPAT - ©Questel

Title

(WO2014126177)

Trajectory control device

Images**Publication numbers with kind code & date**

JP6453750	B2	2019-01-16	JP6453750
JPWO2014126177	A1	2017-02-02	JP2014126177W
WO2014/126177	A1	2014-08-21	WO2014126177

**Abstract**

(WO2014/126177)

By treating an oscillation body to be controlled as a portion of a three-body oscillator which moves under a conservative force, and which is designed such that Grover's Algorithm holds, using an energy transition between oscillators which is a characteristic of this algorithm, a control function is analytically derived whereby it is possible to arbitrarily change the location and velocity of a second support body after a natural period of the oscillation body to be controlled which includes the second support body. By forcibly displacing the portion of the oscillation body to be controlled according to the control signal which is determined from the location and velocity of the second support body which is measured for each natural period and/or applying an external force to the portion of the oscillation body to be controlled, a sample value control of a

trajectory of the second support body is carried out to bring the second support body close to a target location and velocity for each natural period. A plurality of control devices are provided, owing to differences in mechanisms of the oscillation body to be controlled and the control methods.

Inventors

KOTAKE SHIGEO

YAGI KAZUNORI

KAWAKITA YUICHIROU

Latest standardized assignees - inventors removed

MIE UNIVERSITY

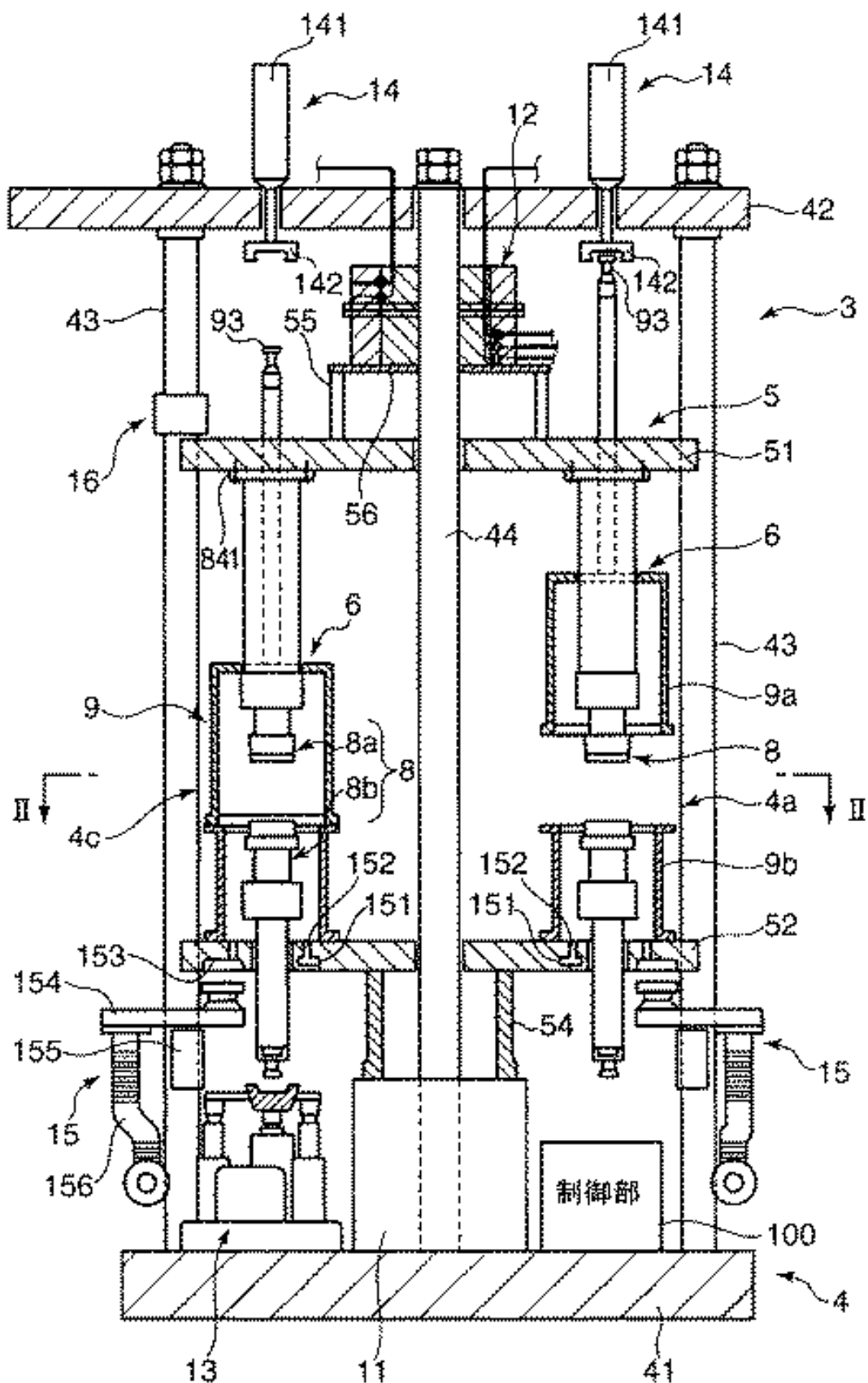
Family 26/39 - FAMPAT - ©Questel

Title

(JP2007008735)

Apparatus for molding optical product

Images



Publication numbers with kind code & date

JP2007008735	A	2007-01-18	JP2007008735
CN1887754	A	2007-01-03	CN1887754
KR20070000964	A	2007-01-03	KR20070000964
TW200700334	A	2007-01-01	TW200700334



Abstract

(JP2007008735)

PROBLEM TO BE SOLVED: To provide an apparatus for molding an optical product which can keep the accuracy of products good while enabling mass production.

SOLUTION: There are provided molding units 6 wherein each has a pair of upper and lower molds 8 and a bell jar 9 that constitutes a processing chamber by surrounding the molds 8 air-tightly. The optical product is molded by subjecting an object to be molded that is removably supported between the molds 8 to a plurality of processes containing heating, pressing and cooling. There are provided with a processing base 4 in which processing stations 4a, 4c that each performs one or plurality of the processes are allocated at a given interval along the circumference direction, and with a turn table 5 which supports a plurality of the molding units 6 corresponding to the number of the processing stations at a given interval along the circumference direction and conveys each molding units 6 to the adjoining processing station one after another by turning intermittently. In the molding unit 6 a heater part for heating the object to be molded is built-in respectively.

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Inventors

TAKEUCHI YASUNORI

Latest standardized assignees - inventors removed

TAKEUCHI MANUFACTURING

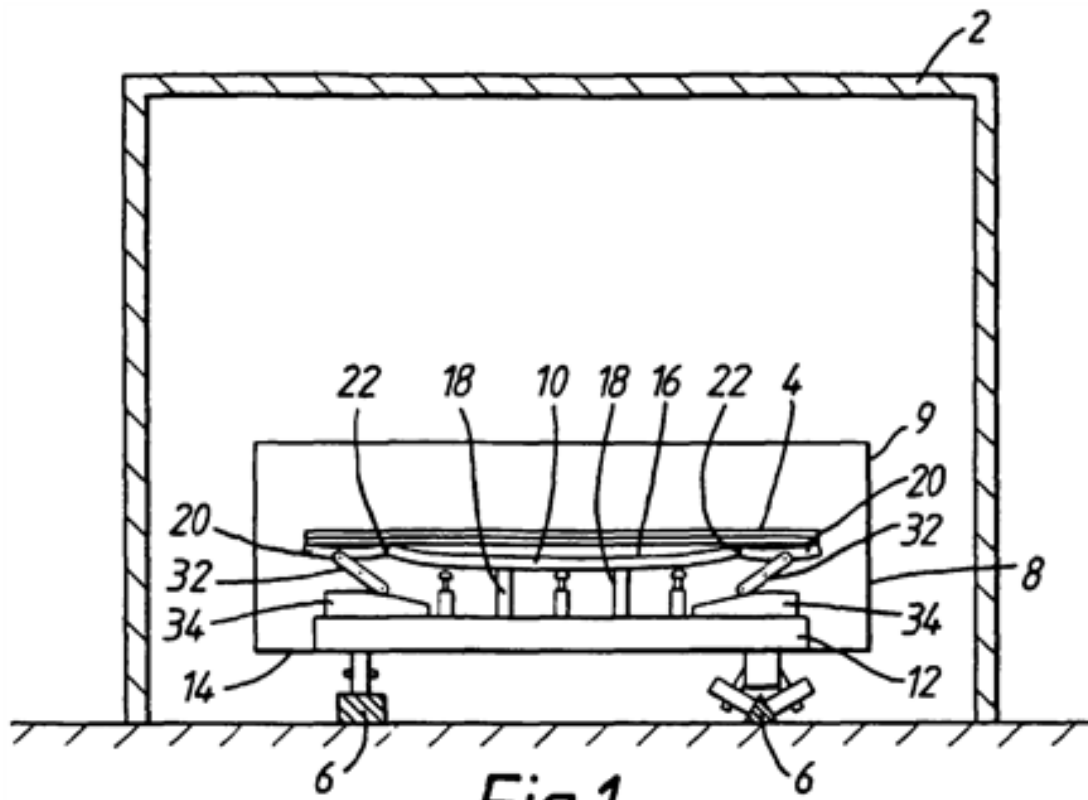
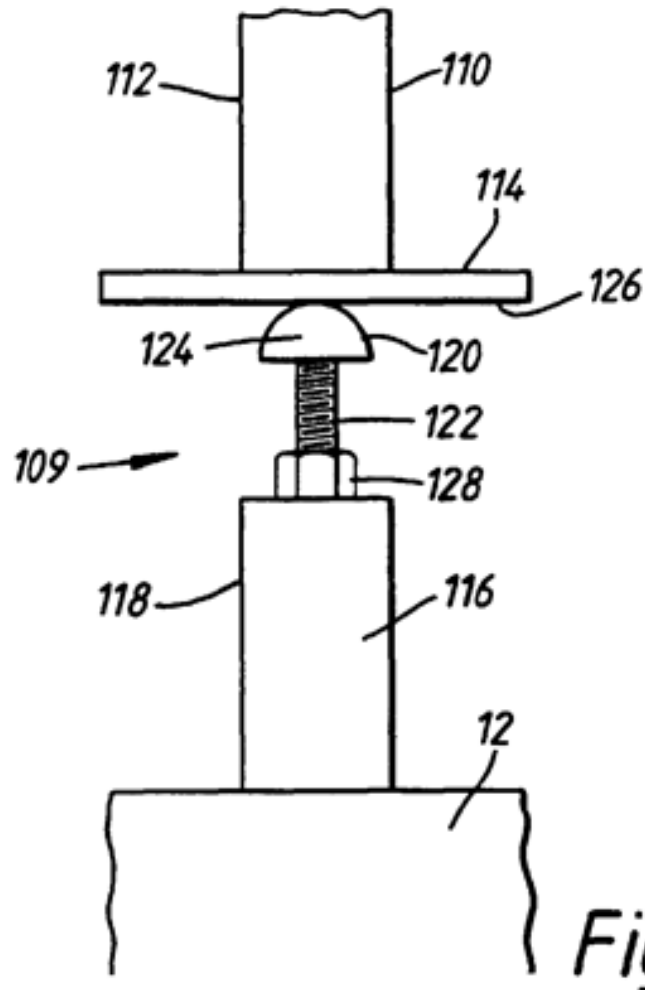
Family 27/39 - FAMPAT - ©Questel

Title

(EP-830321)

Apparatus for and method of bending glass sheets

Images

*Fig. 1**Fig. 7*

Publication numbers with kind code & date

JP4386461	B2	2009-10-09	JP4386461
CN1144764	C	2004-04-07	CN1144764C
PL181448	B1	2001-07-31	PL-181448
DE69605195	T2	2000-08-24	DE69605195
ES2140843	T3	2000-03-01	ES2140843
DE69605195	D1	1999-12-23	DE69605195
JPH11513966	A	1999-11-30	JP11513966
EP0830321	B1	1999-11-17	EP-830321
BR9609287	A	1999-05-11	BR9609287
MX9709628	A	1998-07-31	MX9709628
CN1187175	A	1998-07-08	CN1187175
PL323725	A1	1998-04-14	PL96323725
EP0830321	A1	1998-03-25	EP-830321
AU5507796	A	1997-01-09	AU9655077
WO96/41772	A1	1996-12-27	WO9641772
ZA9604449	B	1996-08-20	ZA9604449
GB9511544	D0	1995-08-02	GB9511544

**Abstract**

(EP0830321)

An apparatus for bending a glass sheet in a gravity bending step and in a subsequent press bending step, the apparatus including a gravity bending mould comprising a fixed mould portion and at least one articulated wing portion adjacent to the fixed mould portion, a base on which the fixed mould portion is mounted and at least one hinged locking arm mounted between the or each respective wing portion and the base, the at least one locking arm being movable by a camming action from an unlocked position in which the wing portion is capable of moving vertically relative to the base to a locked position in which the wing portion is fixed in position relative to the base.

Inventors

SYKES DAVID

Latest standardized assignees - inventors removed

PILKINGTON

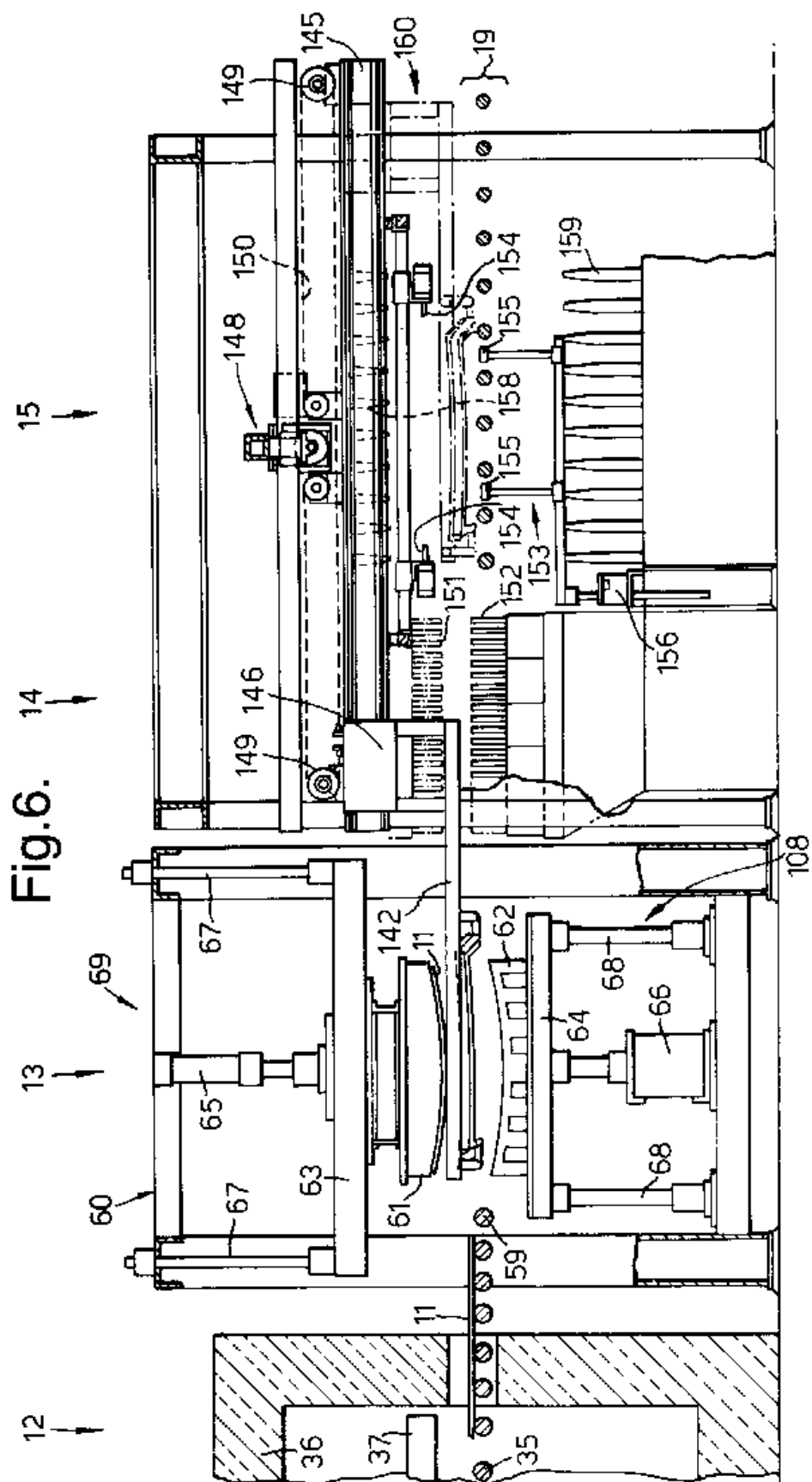
Family 28/39 - FAMPAT - ©Questel

Title

(EP-677491)

Bending and tempering glass sheets

Images



Publication numbers with kind code & date

IN188344	A1	2009-07-24	IN-188344
JP3801665	B2	2006-05-12	JP3801665
MXPA95001773	A	2004-09-27	MXPA95001773



KR100367539	B1	2003-02-25	KR100367539				
IN188344	B	2002-09-07	IN-188344				
DE69503689	T2	1999-01-14	DE69503689				
ES2123209	T3	1999-01-01	ES2123209				
DE69503689	D1	1998-09-03	DE69503689				
AT168974	T	1998-08-15	ATE168974				
EP0677491	B1	1998-07-29	EP-677491				
RU95105428	A	1997-01-27	RU95105428				
RU95105428	A1	1997-01-27	RU95105428				
NZ270927	A	1996-12-20	NZ-270927				
HUT72393	A	1996-04-29	HU-T72393				
CN1118769	A	1996-03-20	CN1118769				
JP8034629	A	1996-02-06	JP08034629				
EP0677491	A3	1996-01-24	EP-677491				
CZ93695	A3	1996-01-17	CZ9500936				
KR950031950	A	1995-12-20	KR19950031950				
BR9501542	A	1995-11-14	BR9501542				
AU1643295	A	1995-10-26	AU9516432				
EP0677491	A2	1995-10-18	EP-677491				
CA2146936	A1	1995-10-16	CA2146936				
FI951752	A	1995-10-16	FI9501752				
PL308101	A1	1995-10-16	PL95308101				
ZA9503035	B	1995-10-16	ZA9503035				
HU9501059	D0	1995-06-28	HU9501059				
BRPI9501542	A1	1995-05-30	BR9501542				
FI951752	A0	1995-04-12	FI9501752				
GB9407610	D0	1994-06-08	GB9407610				

Abstract

(EP0677491)

Glass sheets are press bent and tempered, especially for use as glazings in vehicles. Such glazings are required to be accurately bent to a complex shape while meeting high standards of optical quality and fracture safety at an acceptable cost. A method of bending and tempering a glass sheet (11) is provided comprising heating the sheet (11) in a furnace (12), including heating at least one portion of the sheet to a higher temperature than another portion, conveying the sheet out of the furnace and into a press bending station (13), shaping the sheet by pressing it between opposed complementary upper and lower press members (61,62), at least one of the members being internally heated, transferring the bent glass sheet onto a shuttle carrier ring (140) conforming to the periphery of the sheet, and tempering the sheet while supported on the carrier ring. A corresponding apparatus is also described.

Inventors

WOODWARD ALAN CHARLES

FUNK HANS-DIETER

HERRINGTON RICHARD A

YUKI KAZUNORI

Latest standardized assignees - inventors removed

PILKINGTON

FLACHGLAS

LIBBEY OWENS FORD

NIPPON SHEET GLASS

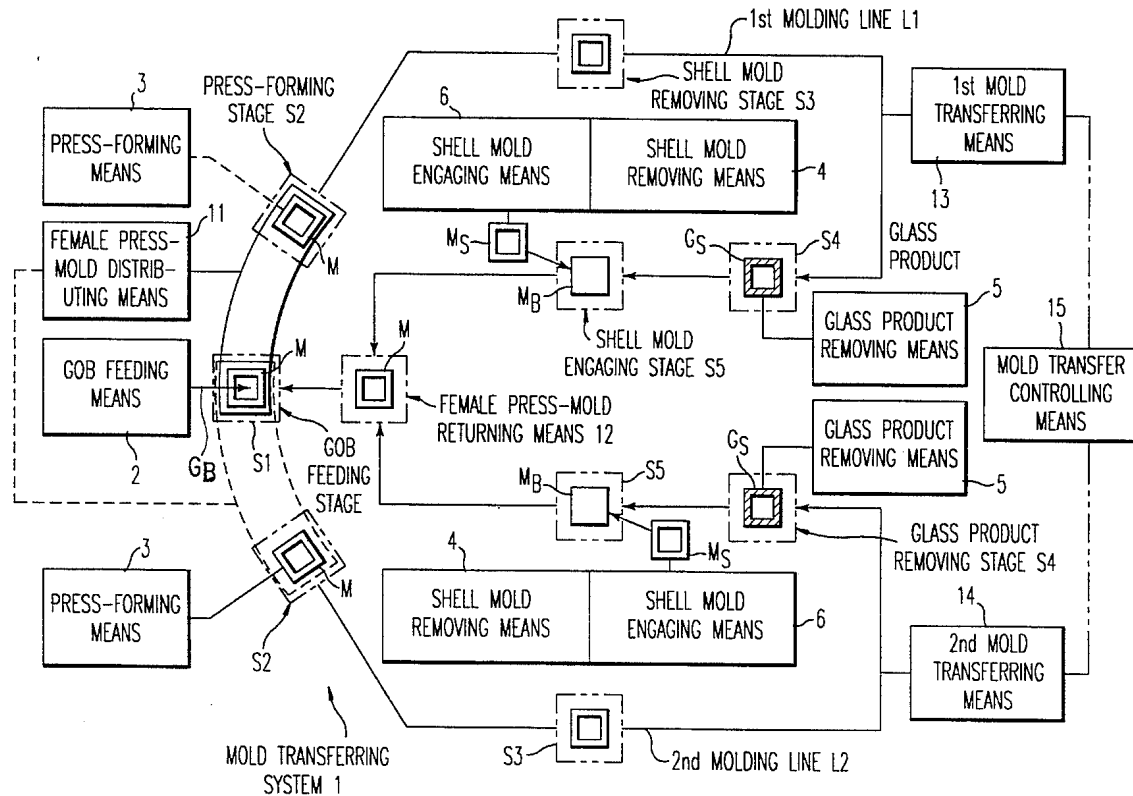
PPG INDUSTRIES

Family 30/39 - FAMPAT - ©Questel

Title

(US5498274)

Method and device for forming a glass product

Images**Publication numbers with kind code & date**

JP3333564	B2	2002-10-15	JP3333564
CN1049198	C	2000-02-09	CN1049198C
KR100214732	B1	1999-08-02	KR100214732
SG52421	A1	1998-09-28	SG--52421
TW290529	B	1996-11-11	TW-290529
GB2273293	B	1996-08-21	GB2273293
US5498274	A	1996-03-12	US5498274
JP07053222	A	1995-02-28	JP07053222
CN1092745	A	1994-09-28	CN1092745
KR940014210	A	1994-07-18	KR19940014210
JP06183754	A	1994-07-05	JP06183754
DE4342629	A1	1994-06-16	DE4342629
GB2273293	A	1994-06-15	GB2273293
GB9325471	D0	1994-02-16	GB9325471

**Abstract**

(US5498274)

A forming method of a glass product includes the steps of successively setting female press-molds on a gob feeding stage; feeding gob to the female press-molds at the gob feeding stage at predetermined intervals; successively transferring the female press-molds fed with the gob to a press-forming stage; press-forming the gob into a glass product at the press-forming stage; and removing the press-formed glass product at a product removing stage. A plurality of the press-forming

stages are provided surrounding the gob feeding stage, and wherein a plurality of closed loop molding lines are provided each of which independently performs a series of steps including the steps of press-forming the gob and removing the press-formed glass product, along with the step of successively transferring the female press-molds fed with the gob in the step of feeding the gob to the press-forming stage in each of the closed loop molding lines, and the step of successively returning the female press-molds after finishing the step of removing the press-formed glass product to the gob feeding stage from each of the closed loop molding lines.

Inventors

MATSUMOTO ITSUO

FURUI YUJI

TSUCHIMOTO YOSHIHIRO

Latest standardized assignees - inventors removed

ASAHI GLASS

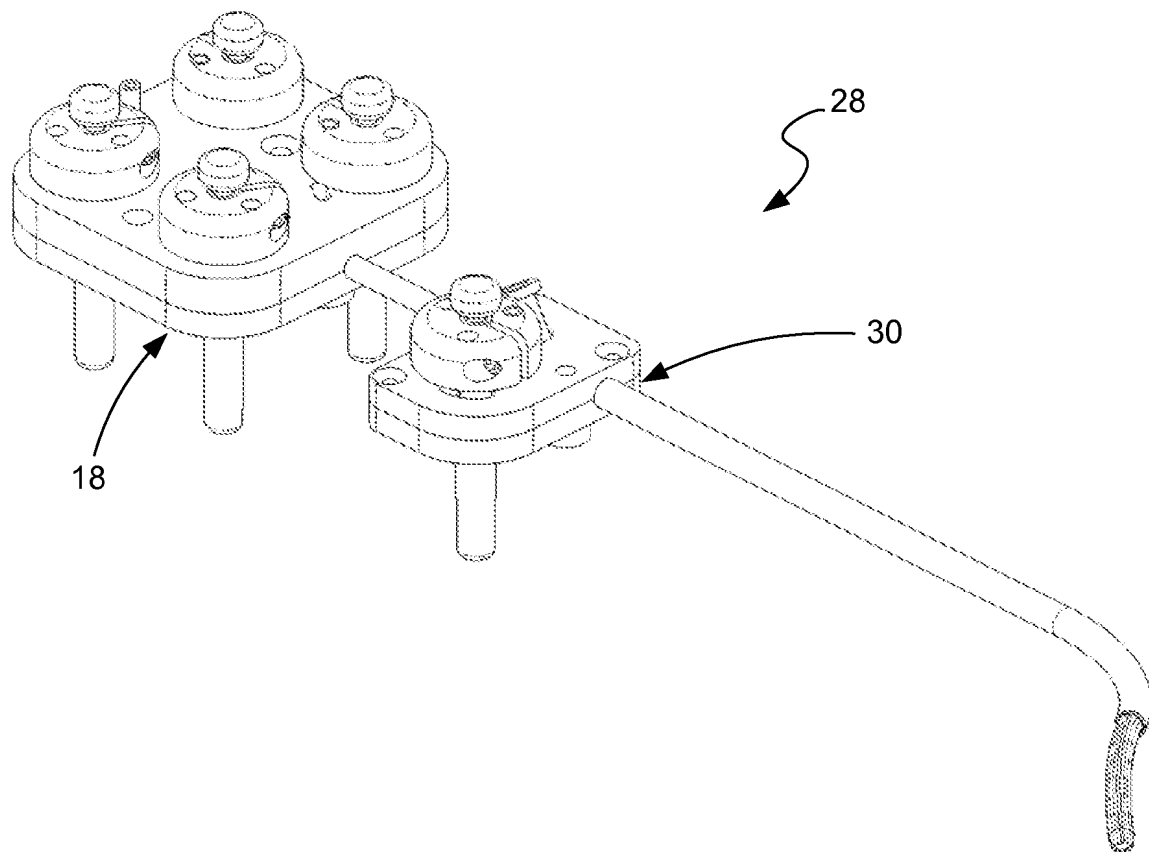
Family 31/39 - FAMPAT - ©Questel

Title

(EP1906858)

Robotic catheter system

Images



Publication numbers with kind code & date

EP1906858	B1	2016-11-16	EP1906858
US9457168	B2	2016-10-04	US9457168
US20140296875	A1	2014-10-02	US20140296875
US8801661	B2	2014-08-12	US8801661
US20140081292	A1	2014-03-20	US20140081292
US8617102	B2	2013-12-31	US8617102
US8257303	B2	2012-09-04	US8257303
US20120209174	A1	2012-08-16	US20120209174



US20120065467	A1	2012-03-15	US20120065467				
US20110238083	A1	2011-09-29	US20110238083				
JP2009500086	A	2009-01-08	JP2009500086				
EP1906858	A1	2008-04-09	EP1906858				
WO2007/005976	A1	2007-01-11	WO200705976				

Abstract

(EP1906858)

The apparatus of one embodiment of the present invention is comprised of a flexible sheath instrument (Fig. 500, Nr. 30), a flexible guide instrument (18), and a tool (800, 801, etc.). The flexible sheath instrument comprises a first instrument base (Fig. 500, Nr. 46) removably coupleable to an instrument driver and defines a sheath instrument working lumen. The flexible guide instrument comprises a second instrument base (48) removably coupleable to the instrument driver and is threaded through the sheath instrument working lumen. The guide instrument also defines a guide instrument working lumen. The tool is threaded through the guide instrument working lumen. For this embodiment of the apparatus, the sheath instrument and guide instrument are independently controllable relative to each other.

Inventors

MOLL FREDERIC H
WALLACE DANIEL T
STAHLER GREGORY J
MOORE DAVID F
ADAMS DANIEL T
MARTIN KENNETH M
YOUNGE ROBERT G
ZINN MICHAEL R
NIEMEYER GUNTER D
LUNDMARK DAVID

Latest standardized assignees - inventors removed

AURIS HEALTH

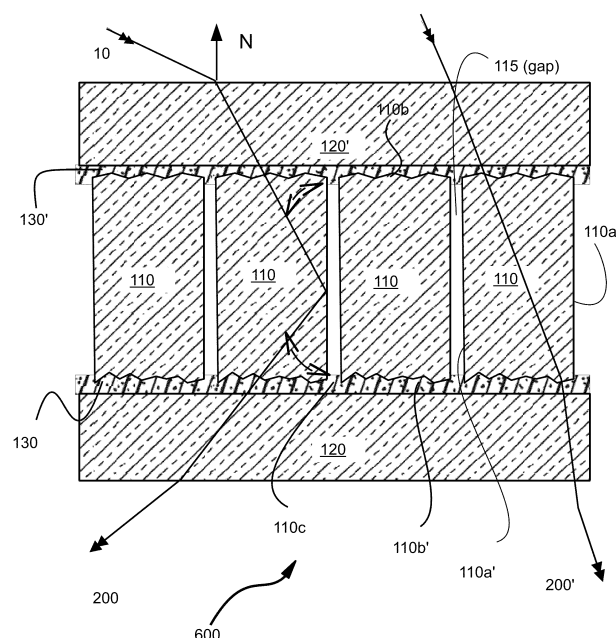
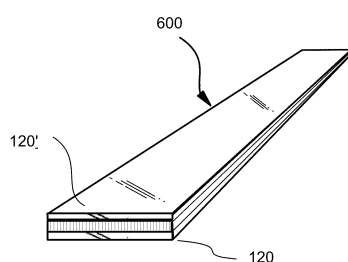
Family 32/39 - FAMPAT - ©Questel

Title

(WO201640705)

Louvered light re-directing structure

Images



Publication numbers with kind code & date

CN105421932	B	2019-08-30	CN105421932B
US9784030	B2	2017-10-10	US9784030
HK1218320	A1	2017-02-10	HK1218320
HK1216767	A1	2016-12-02	HK1216767
CN205743638	U	2016-11-30	CN205743638U
CN205477094	U	2016-08-17	CN205477094U
TW201623868	A	2016-07-01	TW201623868
US20160186488	A1	2016-06-30	US20160186488
US20160186948	A1	2016-06-30	US20160186948
TW201621145	A	2016-06-16	TW201621145
CN105569542	A	2016-05-11	CN105569542
CN105421932	A	2016-03-23	CN105421932
WO2016/040705	A1	2016-03-17	WO201640705
WO2016/040706	A1	2016-03-17	WO201640706



Abstract

(WO2016/040705)

Generally plano rectangular louvers are capable of being ganged in a stacked tiltable array to enhance light re-direction when titled to follow the solar elevation. Combinations of features and optical characteristic avoid optical artifacts and enhance efficiency of light utilization and manufacturing. Different louvers can be combined in alternative ways in such arrays.

Inventors

GARDINER MARK E
FORD ROBERT S
LOCKETT DAVID A

Latest standardized assignees - inventors removed

SERRALUX

Family 33/39 - FAMPAT - ©Questel

Title

(FR1184381)

Removal device for glass articles on the continuous machines to blow the bottles

Publication numbers with kind code & date

[FR1184381](#) A 1959-07-21 FR1184381

**Latest standardized assignees - inventors removed**

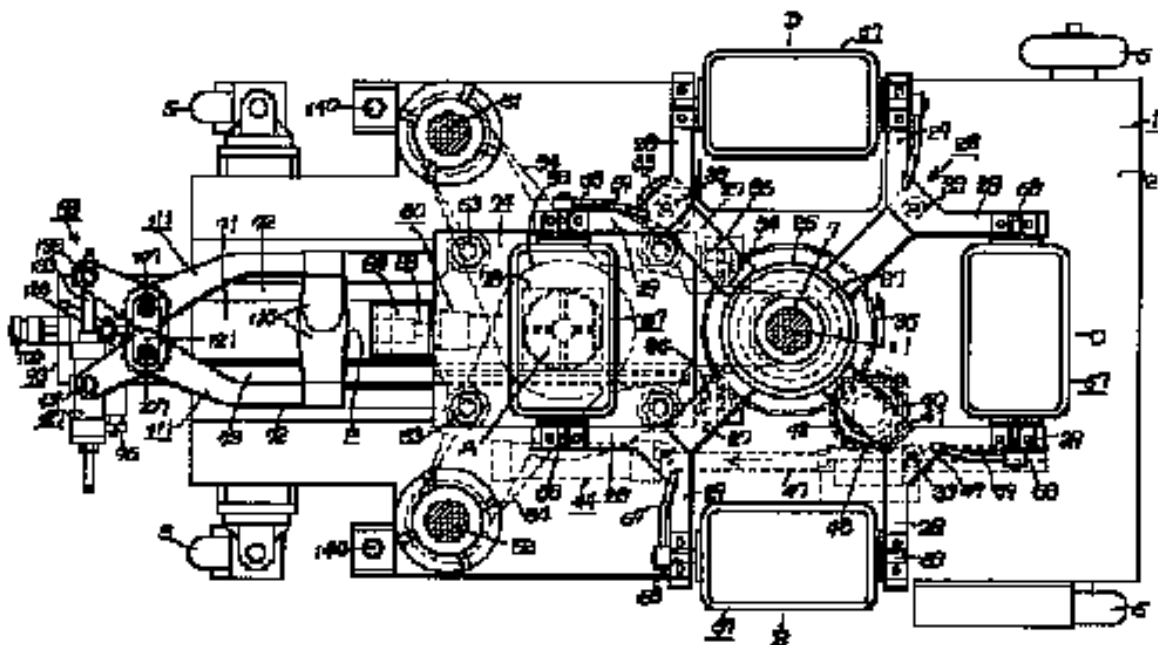
BERLINER MASCHB VORM L SCH

Family 34/39 - FAMPAT - ©Questel

Title

(JP06293525)

Glass molding device

Images

Publication numbers with kind code & date

KR960008628	B1	1996-06-28	KR960008628
JP2509788	B2	1996-06-26	JP2509788
KR19940023813	A	1994-11-17	KR19940023813
JP06293525	A	1994-10-21	JP06293525
TW219925	B	1994-02-01	TW-219925

**Abstract**

(JP06293525)

PURPOSE:To provide a glass molding device which can easily control the temps. of lower molds and molded goods, can easily control seed rods for supplying molten glass to the lower molds and does not require particular skill for controlling these seed rods. **CONSTITUTION:**This glass molding device is freely vertically movably and freely rotatably provided with a table spider 25 which supports the lower molds 67 and successively rotates and moves toward cooling positions B, C and molded goods taking-positions D in one side part of a press position A. The other side part of the press position A is freely advanceably and retreatably provided with a sliding base 74, the lower molds 67 are retreated to the position parted outward from the press position A on the slide base 74 and the lower molds 67 receiving the molten glass in this position are moved toward the press position A.

Inventors

SAKAI YOSHIO

Latest standardized assignees - inventors removed

SAKAI YASUE

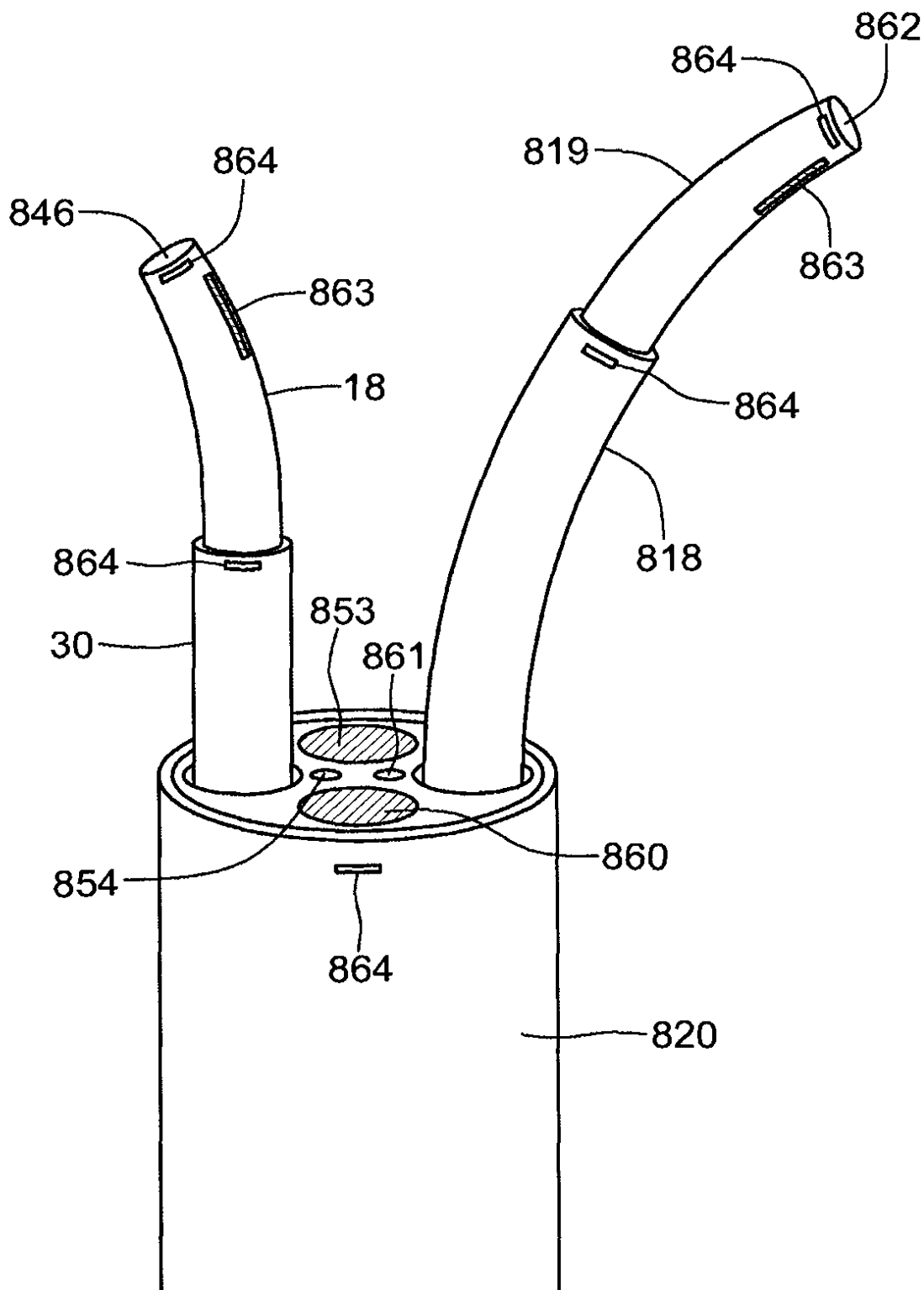
Family 35/39 - FAMPAT - ©Questel

Title

(US20170215978)

Robotic catheter system

Images



Publication numbers with kind code & date

US10368951	B2	2019-08-06	US10368951
US20170215978	A1	2017-08-03	US20170215978
US9629682	B2	2017-04-25	US9629682
US20170086929	A1	2017-03-30	US20170086929
US20150157412	A1	2015-06-11	US20150157412
US8974408	B2	2015-03-10	US8974408
US20130231679	A1	2013-09-05	US20130231679
US8409136	B2	2013-04-02	US8409136
US8394054	B2	2013-03-12	US8394054



US20120004668	A1	2012-01-05	US20120004668				
US20110230896	A1	2011-09-22	US20110230896				
US7972298	B2	2011-07-05	US7972298				
US20050222554	A1	2005-10-06	US20050222554				

Abstract

(US20170215978)

A robotic catheter system includes a controller with a master input device. An instrument driver is in communication with the controller and has a guide instrument interface including a plurality of guide instrument drive elements responsive to control signals generated, at least in part, by the master input device. An elongate guide instrument has a base, distal end, and a working lumen, wherein the guide instrument base is operatively coupled to the guide instrument interface. The guide instrument includes a plurality of guide instrument control elements operatively coupled to respective guide drive elements and secured to the distal end of the guide instrument. The guide instrument control elements are axially moveable relative to the guide instrument such that movement of the guide instrument distal end may be controlled by the master input device.

Inventors

WALLACE DANIEL T

MOLL FREDERIC H

YOUNGE ROBERT G

MARTIN KENNETH M

STAHLER GREGORY J

MOORE DAVID F

ADAMS DANIEL T

ZINN MICHAEL R

NIEMEYER GUNTER D

Latest standardized assignees - inventors removed

AURIS HEALTH

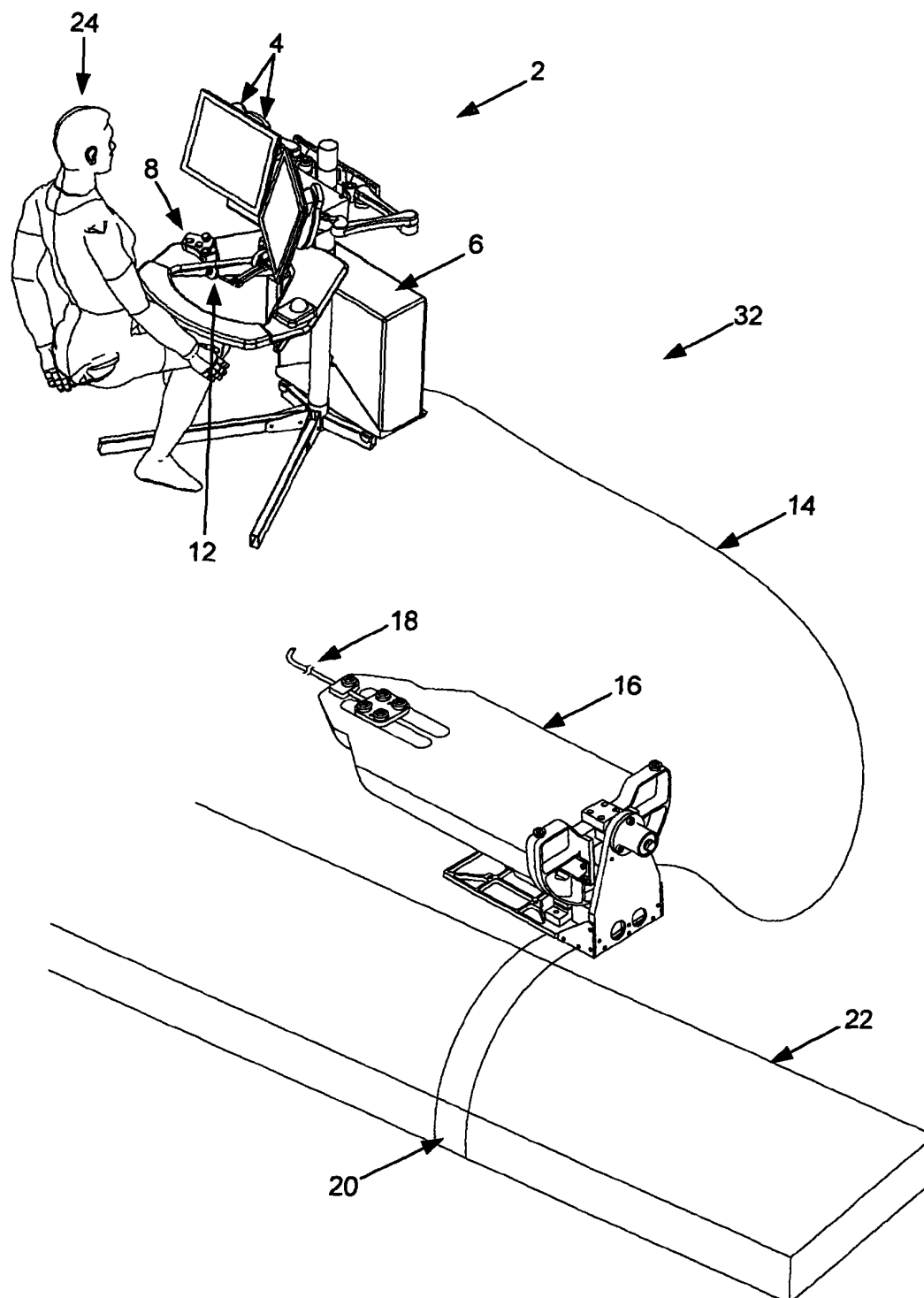
Family 36/39 - FAMPAT - ©Questel

Title

(US8498691)

Robotic catheter system and methods

Images



Publication numbers with kind code & date

US8498691	B2	2013-07-30	US8498691
US8190238	B2	2012-05-29	US8190238
US20070197896	A1	2007-08-23	US20070197896
US20070156123	A1	2007-07-05	US20070156123



Abstract

(US20070156123)

A robotically controlled guide instrument system, comprising an elongate flexible guide instrument; a drive assembly coupled to a proximal portion of the guide instrument and configured to maneuver a distal portion of the guide instrument; a master controller including a user interface that may be manipulated to actuate the drive assembly and thereby maneuver the distal portion the guide instrument; and a closure device detachably coupled to a delivery member carried by the guide instrument, the guide instrument maneuverable to position the closure device proximate an opening of a left atrial

appendage of a person's heart such that the prosthesis may be detached from the delivery member and implanted to substantially close off the left atrial appendage.

Inventors

MOLL FREDERIC H

CARLSON CHRISTOPHER R

BARBAGLI FEDERICO

WALLACE DANIEL T

LUNDMARK DAVID

Latest standardized assignees - inventors removed

AURIS HEALTH

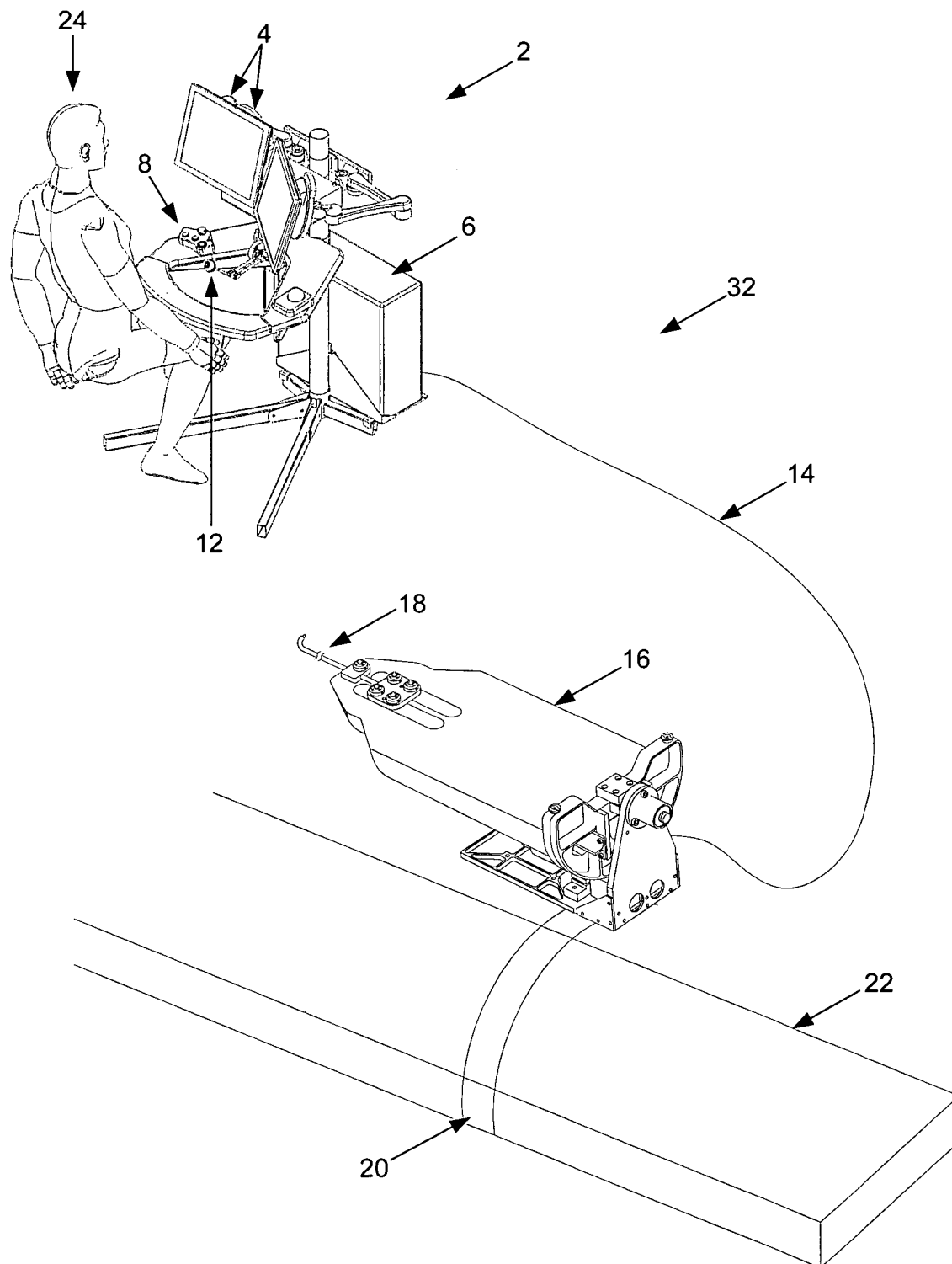
Family 37/39 - FAMPAT - ©Questel

Title

(US20190350660)

Robotic catheter system and methods

Images



Publication numbers with kind code & date

US20190350660	A1	2019-11-21	US20190350660
US8052636	B2	2011-11-08	US8052636
US20070043338	A1	2007-02-22	US20070043338



Abstract

(US20190350660)

The apparatus of one embodiment of the present invention is comprised of a flexible sheath instrument, a flexible guide instrument, and a tool. The flexible sheath instrument comprises a first instrument base removably coupleable to an instrument driver and defines a sheath instrument working lumen. The flexible guide instrument comprises a second instrument base removably coupleable to the instrument driver and is threaded through the sheath instrument working lumen. The guide instrument also defines a guide instrument working lumen. The tool is threaded through the guide

instrument working lumen. For this embodiment of the apparatus, the sheath instrument and guide instrument are independently controllable relative to each other.

Inventors

Moll Frederic H.

Wallace Daniel T.

Stahler Gregory J.

Moore David F.

Adams Daniel T.

Martin Kenneth M.

Younge Robert G.

Zinn Michael R.

Niemeyer Gunter G.

Lundmark David

Latest standardized assignees - inventors removed

AURIS HEALTH

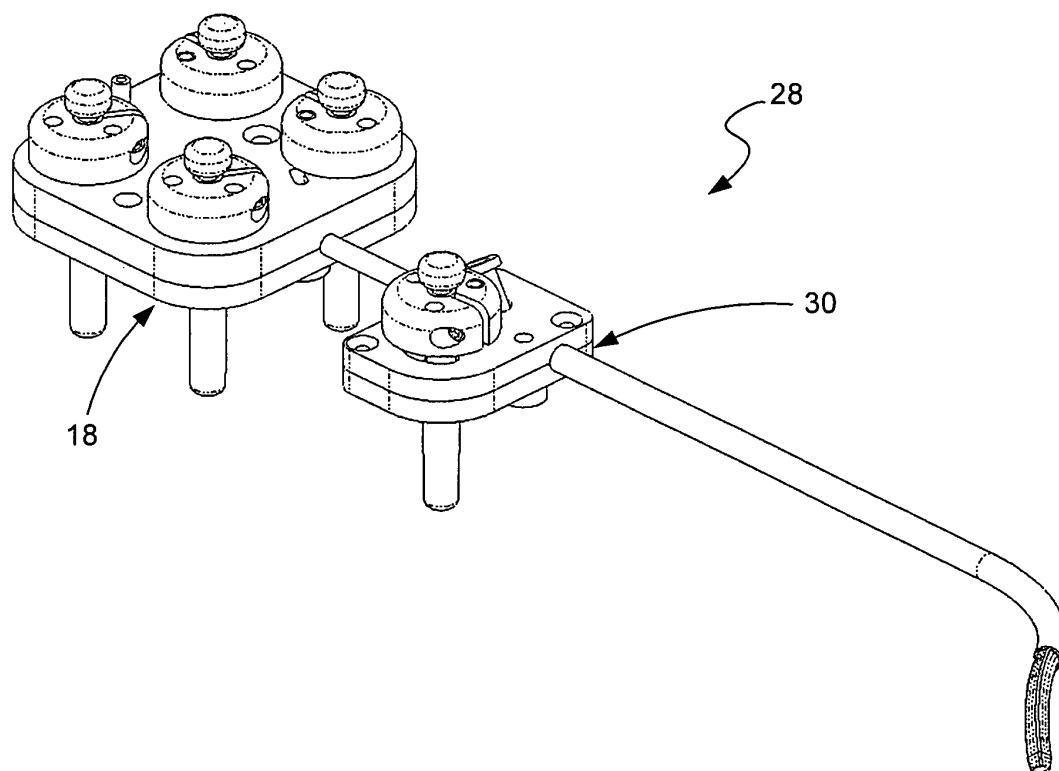
Family 38/39 - FAMPAT - ©Questel

Title

(US20060100610)

Methods using a robotic catheter system

Images



Publication numbers with kind code & date

US8926603	B2	2015-01-06	US8926603
US8311626	B2	2012-11-13	US8311626
US20120016291	A1	2012-01-19	US20120016291
US8021326	B2	2011-09-20	US8021326
US8005537	B2	2011-08-23	US8005537
US7976539	B2	2011-07-12	US7976539



US7974681	B2	2011-07-05	US7974681				
US20110160724	A1	2011-06-30	US20110160724				
US7850642	B2	2010-12-14	US7850642				
US20060293643	A1	2006-12-28	US20060293643				
US20060200026	A1	2006-09-07	US20060200026				
US20060111692	A1	2006-05-25	US20060111692				
US20060100610	A1	2006-05-11	US20060100610				
US20060095022	A1	2006-05-04	US20060095022				
US20060084945	A1	2006-04-20	US20060084945				
US20060057560	A1	2006-03-16	US20060057560				

Abstract

(US20060100610)

A method using a robotic system to perform a procedure on a patient, includes moving a control interface provided on a master input device, generating control signals corresponding, at least in part, to movement of the interface, moving one or more drive elements of an instrument driver in response to the control signal, the one or more drive elements operatively coupled to a corresponding plurality of control elements of an elongate guide instrument, the control elements secured to a distal end of the guide instrument and moveable axially relative to the guide instrument such that movement of the drive elements causes a corresponding movement of the guide instrument. The method may further comprise providing tactile feedback through the interface.

Inventors

WALLACE DANIEL T

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BARBAGLI FEDERICO

MOORE DAVID F

STAHLER GREGORY J

ADAMS DANIEL T

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MARTIN KENNETH M

Latest standardized assignees - inventors removed

AURIS HEALTH

Family 39/39 - FAMPAT - ©Questel

Title

(EP-555955)

Mould mechanism

Images

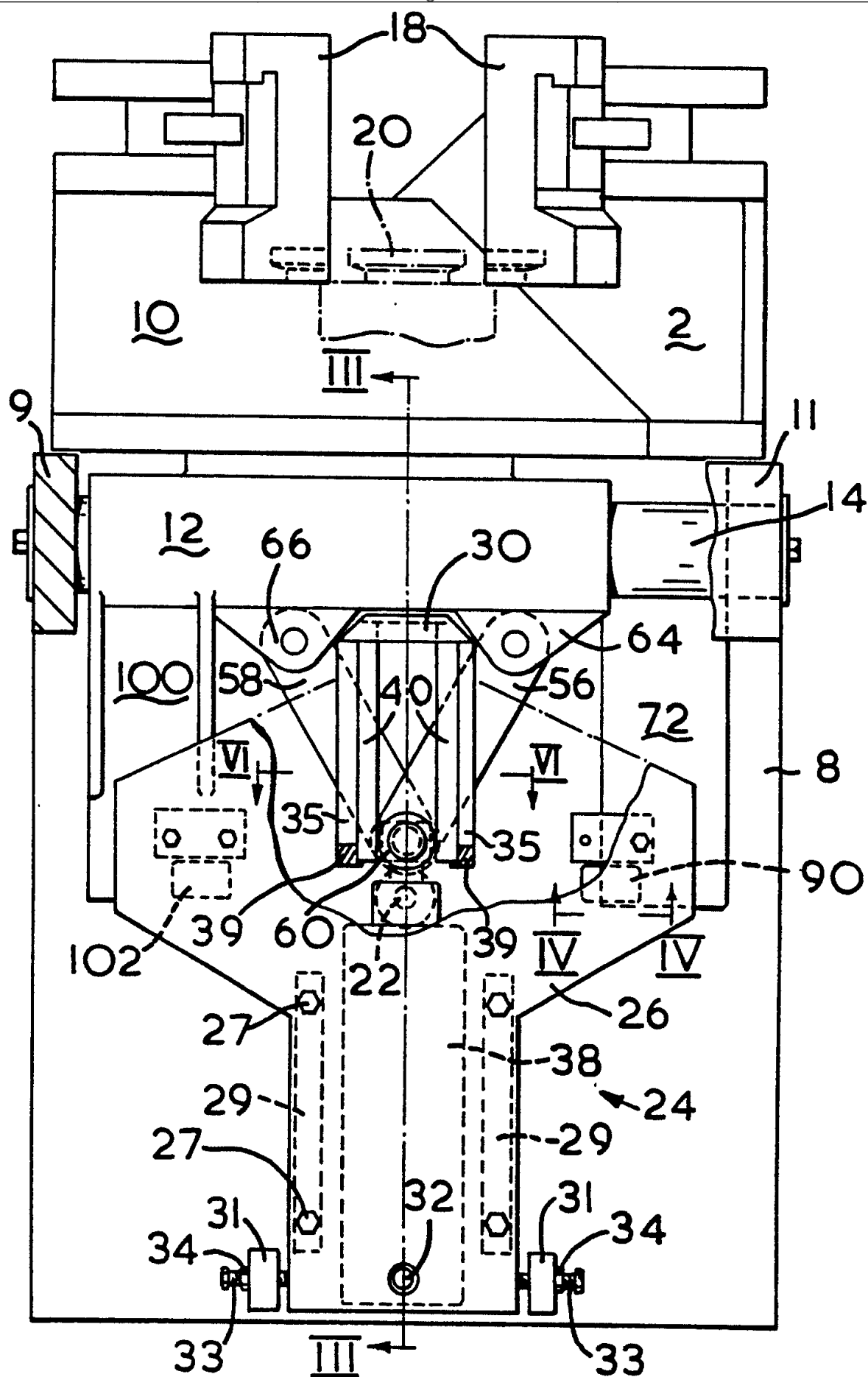


FIG 1

Publication numbers with kind code & date

DE69302497	T2	1996-11-28	DE69302497
ES2086875	T3	1996-07-01	ES2086875
DE69302497	D1	1996-06-13	DE69302497
EP0555955	B1	1996-05-08	EP-555955
AU662198	B2	1995-08-24	AU-662198
US5275638	A	1994-01-04	US5275638
JPH05279052	A	1993-10-26	JP05279052
EP0555955	A1	1993-08-18	EP-555955
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**Abstract**

(EP0555955)

A parallel movement mould mechanism for use in a glassware forming machine comprises mould supports (2,10) mounted for movement on horizontal shafts (6,14) and means for moving the mould supports comprising a cage assembly (24) in which a piston and cylinder device (38) linked to the mould supports is mounted, the cage assembly (24) being mounted for adjustable pivotal movement with respect to shafts so that adjustment of the position of the cage assembly adjusts the position of the centre line of moulds supported on the mould supports. <IMAGE>

Inventors

SIDLER WERNER

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