LAMESCH Armand

(1898-1966)

Ettelbruck

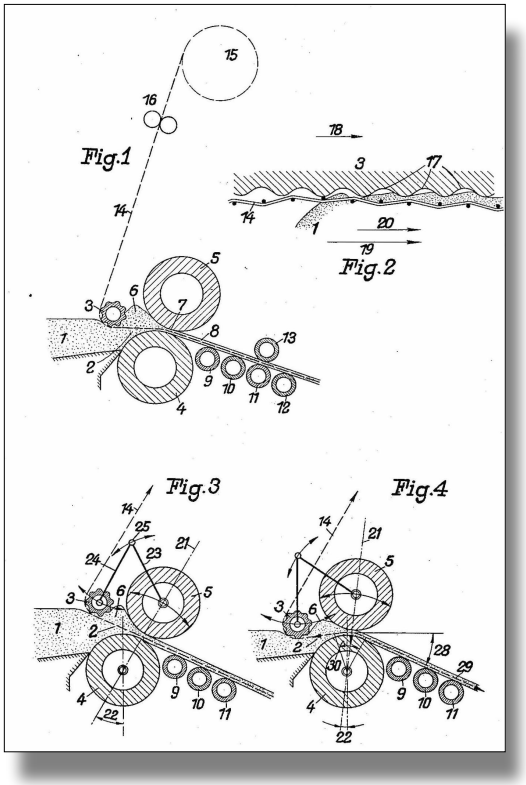
Patents (details)

1 - Method and device for producing single-layered wire glass

US patent	2062228
Application date	5 July 1934
Assigned to	Schlesische Spiegelglas-Manufactur Carl Tielsch, GmbH

This invention relates to a method and device for producing single-layered wire glass.

According to the invention, the wire insertion is placed in the fused glass mass around an adjustable roller serving as guide. This guide roller is disposed in front of the molding rollers, dips into the glass, possesses grooves which extend parallel to the generatrix of the roller surface or are helical or arrow-shaped and whose circumferential speed is lower than that of the molding rollers or has a direction opposite to the latter, and forms with the lower molding roller a passage or gap whose cross sectional area, per unit of width is greater than that of the gap formed by the upper and lower molding rollers.



Corresponding patents

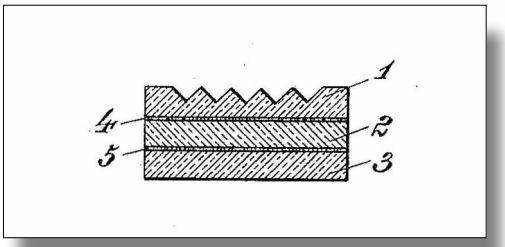
DE, FR

2 - Gauge glass

US patent	2071411
Application date	28 June 1934
Assigned to	Schlesische Spiegelglas-Manufactur Carl Tielsch, GmbH

This invention relates to an inspection glass, preferably for pressure and vacuum containers, and also for receptacles whose contents attack the glass as in water gauges, etc.

The sight glass according to this invention consists of several layers of single glasses, which are independent from one another and between which layers of a material having approximately the same refractive index as glass, are interposed. These intermediate layers do not effect a firm connection between the single glasses, but merely cause them to adhere to each other without interfering with their freedom of motion relative to one another in case of stresses due especially to different thermal expansion. The intermediate layers consist of a transparent material, which do not solidify even after a long period and which exclude the danger of interference phenomena, and interconnect the individual glasses so as to insure excellent transparency of the entire glass combination even if the surfaces of the single glasses coming into contact with the intermediate layers are not ground and polished.



3 - Fiber or filament of glass

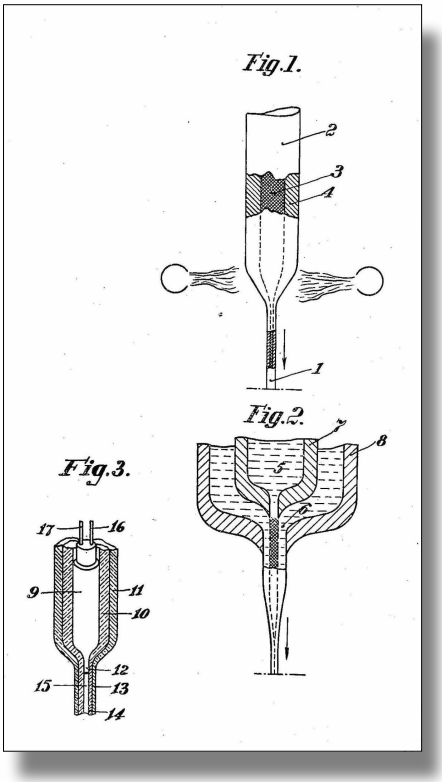
US patent	2313296
Application date	23 September 1937
	"Vested in the Alien Property Custodian" [1]

The invention relates to fibers or filaments of glass or like substances capable of being spun when in a molten condition and has for its main object to provide improved fibers or filaments of this kind having properties which render them particularly suitable for use in making, for example, glass wool, insulating wadding, threads, or the like. A further object of the invention is to provide a method of producing such fibers or filaments.

According to the invention the glass fibers or filaments comprise concentrically disposed interfused glass layers of different composition.

Preferably each fiber or filament consists of a glass core fused with an outer layer or shell of glass having a different coefficient of expansion from that of the glass core. The effect of this combination is that during cooling the tendency of the core to contract to a degree different from that of the shell causes the latter to assume a different condition of tension from that which it would have assumed without this influence. The core is under compressive stresses and the shell is under tensile stresses; that is, the opposite of the form described above. Such filaments are produced by using for the core a glass having a smaller coefficient of expansion than that used for the shell.

Irrespective of whether the shell or the core is subjected to the compressive stresses, the filaments according to the invention have the favourable property that they can be heated up to such temperatures at which the glass expands and, nevertheless, again take up their former condition with regard to the tensions difference between the shell and the core after cooling



[1] *vested (seized during WW II as foreign owned or controlled property located in the United States)*

This property makes it possible for such filaments to be produced in a comparatively simple manner by heat deformation without it being necessary to cool the surfaces thereof suddenly, as is essential in the known glass hardening processes.

If the coefficient of expansion of the core is greater than that of the shell, the core is subjected to tensile stresses and the shell to compressive stresses when the filament is cold; that is, the filament has the same properties which are produced in glass articles in known manner by means of the so-called hardening process.

A filament constructed in such a manner possesses considerably improved physical and mechanical properties as compared with ordinary glass filaments; above all, it breaks less easily and can be deformed to a much greater extent.

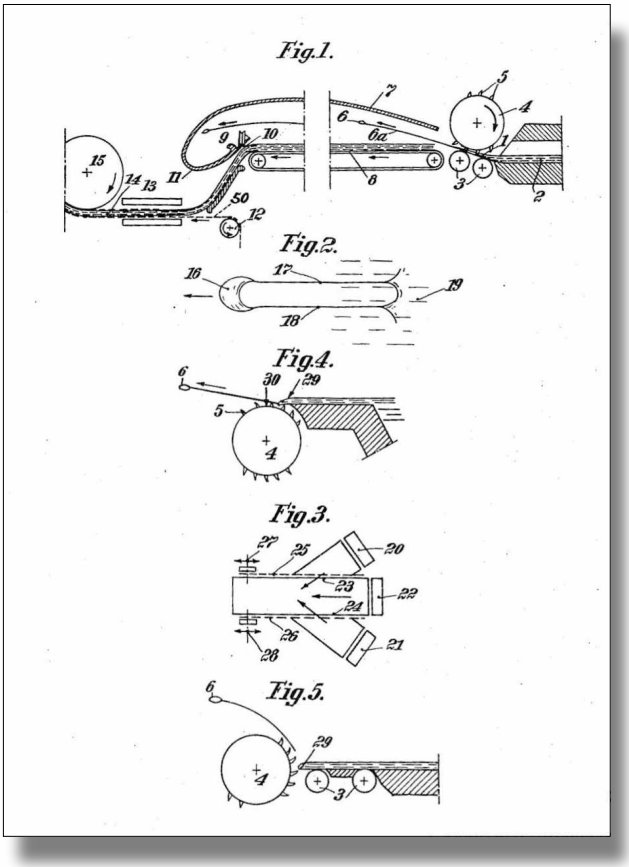
Corresponding patents

DE, CH, FR, GB, NL, BE

4 - Method of and apparatus for producing filaments or the like of glass and structures thereof

US patent	2314944
Application date	23 September 1973
	"Vested in the Alien Property Custodian" [2]

This invention relates to a method and device for the production of threads or filaments of glass or similar substances capable of being spun in molten condition, to serve as elements for constructing therefrom structures such as yarns, webs, mats or glass wool, and further to means for directly working such threads or filaments into products of this nature, such for example as heat and sound insulating materials.



Corresponding patents

DE, CA, FI, CH, NL, GB, FR

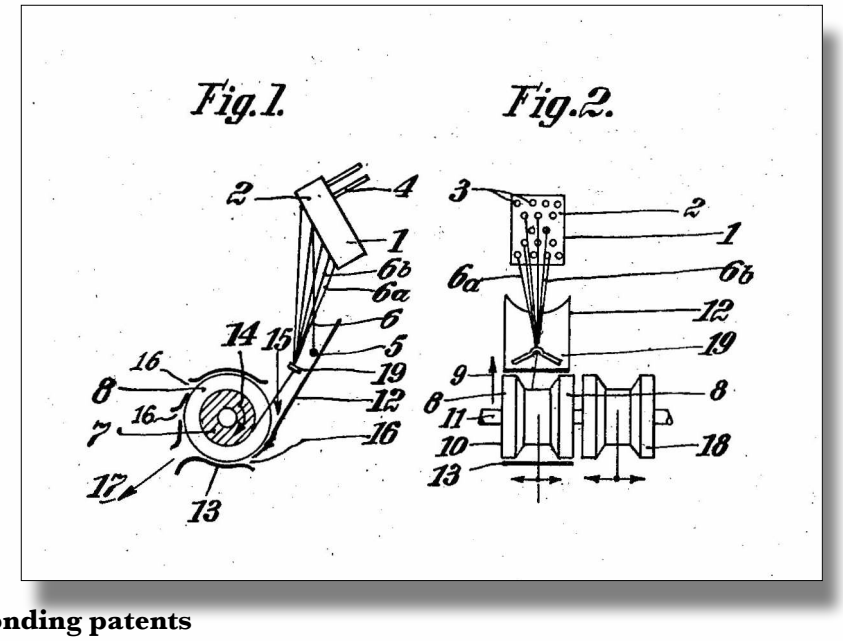
[2] *vested (seized during WW II as foreign owned or controlled property located in the United States)*

5 - Method of winding thin threads or filaments

US patent	2255426
Application date	23 September 1937
	"Vested in the Alien Property Custodian" [3]

This invention relates to the production of threads or filaments of glass or substances having properties similar to those of glass and has for its object to provide an improved method of winding such threads or filaments on a drum or spool whereby the disadvantages connected with existing methods are avoided.

The method according to the invention enables filaments to be wound in a much simpler and effective manner. The method consists in effecting the winding within a layer of air separated from the outside air by a shell or jacket which is substantially concentric to the spool, said layer of air thus being protected from the disturbing influences of the outside air and also of the air accelerated by the end surfaces of the spool. In this layer of air currents and variations of the intensity of the static pressure conditions are created. The velocity of the air current carried along by the spool in the direction of its rotation is reduced in a direction from the spool surface towards the stationary shell or jacket and at the same time the static pressures in the same direction increase. A body introduced into this air current is, owing to the pressure differences acting in the direction of the radius of the spool upon its surface, subjected to forces which tend to guide it towards the spool. This action is particularly strong in the case of threads or filaments, especially glass filaments, because they have a very great surface area relative to their mass.



Corresponding patents

DE, AT, BE, FR, GB, NL

6 - Spulkopf, insbesondere zum Aufspulen von Fäden aus Glas und ähnlichen Stoffen

German patent	906008
Application date	13 February 1942
Co-inventors	Ernst FISCHER
	Michael FINCKE
Assigned to	Société Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey, Paris

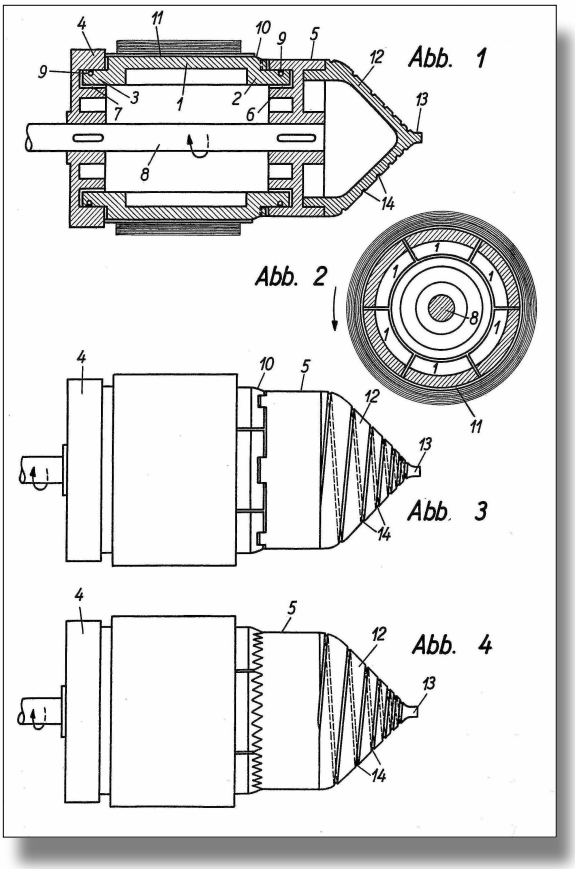
Beim Spinnen von Fäden aus Glas oder ähnlichen Stoffen stehen die Fäden beim Aufspulen von der Spinndüse aus unter Zug; dieser Zug verstärkt sich im Wickel noch durch die Verkürzung der Fäden infolge ihrer Abkühlung. Um die

[3] *vested (seized during WW II as foreign owned or controlled property located in the United States)*

Auswirkung dieser Zugkräfte in den Wicklungslagen unschädlich zu machen, sind Vorrichtungen bekannt, bei denen die Spulköpfe, d. h. die Träger der Spinn spulen, mit einer Anzahl parallel zur Spulenlängsachse liegenden Längsgliedern versehen sind, die durch Stellmittel in eine innere und äußere Lage gebracht werden oder die als Fliehgewichte arbeiten und

sich beim Spulen mit zunehmender Drehgeschwindigkeit begrenzt radial nach außen be wegen. Nach beendetem Spulen werden die Längsglieder durch die Stellmittel in ihre innere Lage zurückgeführt bzw. kehren von selbst durch das Aufhören der Fliehkraft in die innere Lage zurück, so daß die Fadenspannung innerhalb des Wickels verringert wird. Bei Spulvorrichtungen mit Fliehkraftgliedern hat man auch auf den Spulkopf auf zuschiebende Spulen oder Hülsen aus begrenzt dehnbarem Stoff benutzt, gegen deren Innenseite sich die Fliehgewichte anlegen, sie bis zu einem gewissen Grad ausdehnen und durch Reibung in der Drehbewegung mitnehmen.

Gegenstand der Erfindung ist ein ähnlich der zuletzt genannten Spule gebauter Spulkopf, der aber so ausgebildet ist, daß der Fadenwickel gegebenenfalls unter Verwendung einer auf den Kopf aufgeschobenen, einfachen billigen Trägerhülse von der Spule abgeschoben werden kann und daß am freien Ende der Spule Anlauf- bzw. Auflaufflächen für den Faden vorgesehen sind, die, wie nachstehend des Näheren ausgeführt, besonders beim Aufspulen von Glasfäden vorteilhaft sind.

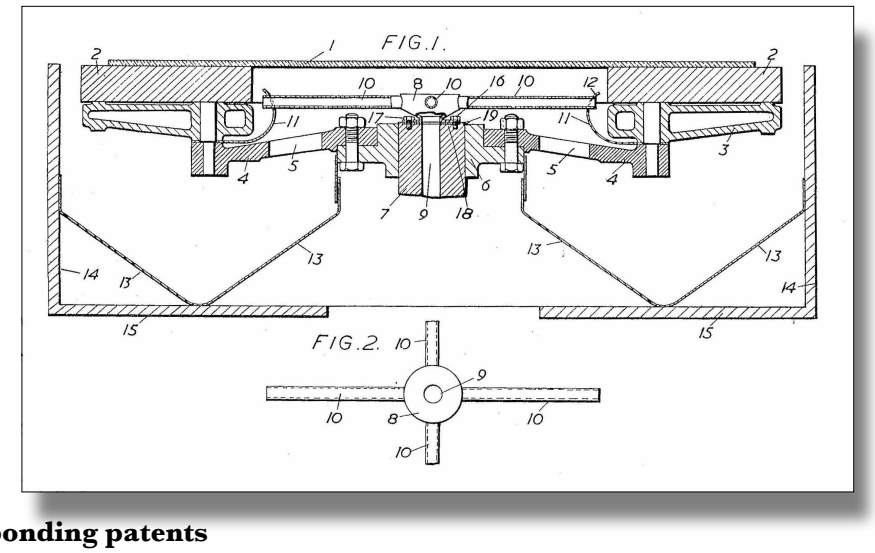


7 - Apparatus for grinding the bottom surface of a ribbon of glass

US patent	2809479
Application date	3 May 1955
Assigned to	Société Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey, Paris

The present invention relates to apparatus for simultaneously grinding both surfaces of a ribbon of glass.

The present invention consists in conducting the suspension of abrasive from the hollow driving shaft of a bottom grinding disc through conduits into the inner end channels in the disc which separate the nogs, in contradistinction to present practice in which the suspension is supplied to the channels from the central cavity itself, the wall of the central cavity being formed with apertures through which cullet may escape during operation of the machine.



Corresponding patents

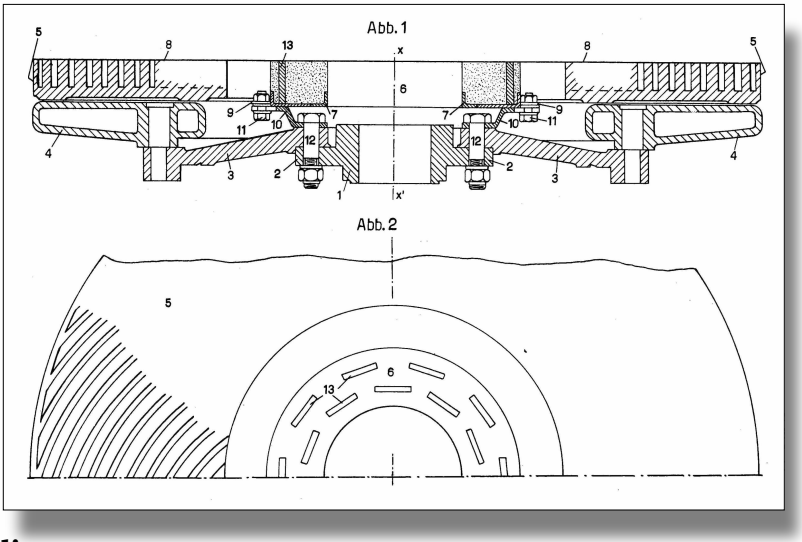
DE, FR, BE

8 - Unterer Schleifkörper bei einer Einrichtung zum gleichzeitigen Schleifen beider Seiten eines Glasbandes

German patent	1090990
Application date	9 March 1957
Assigned to	Compagnie de Saint-Gobain, Neuilly-sur-Seine

Die Erfindung bezieht sich auf eine Einrichtung zum Schleifen von Glasbändern, bei der gleichzeitig beide Flächen des Glasbandes mittels Paaren von sich drehenden, oberen und unteren Schleifkörpern mit kreisringförmigem Schleifkranz geschliffen werden, zwischen denen das Glasband fortbewegt wird. Um zu vermeiden, daß das Glasband unter der Wirkung seines Eigengewichtes über der zentralen Ausnehmung des unteren Schleifkörpers eine Durchbiegung erfährt, die zum Bruch des Glasbandes führen kann, ist es bei : derartigen Einrichtungen bekannt, in der mittleren Ausnehmung des unteren Schleifkörpers eine drehfest mit diesem verbundene Abstützung für das Glasband vorzusehen.

Gegenstand der Erfindung ist eine vorteilhafte Ausbildung dieser Abstützung, indem dieselbe aus einem Material gebildet ist, dessen Härte im Vergleich zu derjenigen des Materials der Arbeitsfläche der Scheibe so gering ist, daß trotz der Unterschiede der linearen Geschwindigkeiten der Arbeitsfläche und der mittleren Abstützung der Verschleiß beider Teile der gleiche ist. Auf diese Weise bleibt die Oberfläche des Abstützorgans stets bündig mit der Arbeitsfläche der Schleifscheibe und bewirkt dadurch eine dauernde Abstützung des Glasbandes.



Corresponding patents

CA, US

9 - Runner

US patent	3068618
Application date	19 July 1960
Assigned to	*Compagnie de Saint-Gobain, Neuilly-sur-Seine*

This invention relates to the surfacing of glass by rotary runners acting with abrasive simultaneously on the upper and lower faces of a glass sheet. These runners are usually provided, on their working faces, with alternate lands and grooves, spiralling outward toward the rim, the grooves being supplied with abrasive sludge and closed at their outer ends to retain the sludge for even distribution to the lands.

In accordance with the invention the outer ends of the grooves of the lower runner are provided with relief ports which have a radial dimension sufficient to allow the glass fragments to escape downward, but still small enough to permit even feeding of the abrasive sludge. As the sludge also escapes through these ports this results in a regular flow of sludge along the grooves.