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問 1

[0006]

As a solution to the quality degradation of refractories due to erosion, for instance, Patent Literature 1 proposes that the entirety of a fusion cell made of a refractory (e.g., fire brick) should be coated with platinum or a platinum alloy by flame thermal spraying.

[Citation List]

[Patent Literature]

[0007]

[Patent Literature 1] JP-A-2099-99999

[Summary of the Invention]

[Problems to Be Solved by the Invention]

[0008]

As depicted in Fig. 1 in an enlarged manner, a fusion cell 100 made of a fire brick or the like has a lower end 103 rounded to some degree. This is because, if the lower end 103 of the fusion cell 100 is sharp, the lower end 103 may be easily damaged during the production of the fusion cell 100 or during the production of sheet glass (g), and the fusion cell 100 may be cracked from the damages to the lower end 103. In addition, the damages to the lower end 103 may lead to other serious problems.

[0009]

On the other hand, when the lower end 103 of the fusion cell 100 is rounded, however, molten glass (gm) may be separated from lateral surfaces 102 of the fusion cell 100 before the molten glass (gm) integrally fuses together at the lower end 103 of the fusion cell 100. If such separation is caused, a

gap (X) as depicted in Fig. 1 may be formed between the lower end 103 of the fusion cell 100 and the molten sheet glass (g).

[0010]

With the presence of the gap (X), the air within the gap (X) may enter the fused portion of the sheet glass (g) when the molten glass (gm) integrally fuses together, and form voids in the sheet glass (g). The gap (x) may lead to other defects of the sheet glass (g), and may deteriorate the quality of the sheet glass (g).

[0011]

The above-described problem is also relevant with respect to the fusion cell 100 (i.e., made of a refractory) coated with platinum or the like by thermal spraying, as in Patent Literature 1. More specifically, even when the surface of the fusion cell 100 is coated, the coating is necessarily rounded in accordance with the shape of the lower end 103 of the fusion cell 100. Accordingly, even in the fusion cell 100 coated with platinum or a platinum alloy by thermal spraying, the gap (X) as depicted in Fig. 1 may be formed, and the problems of air voids or other defects are still relevant.

[0012]

In view of the background described above, the invention serves to prevent air voids or other defects from being made in produced sheet glass.

問2

[Example 2]

The knitted gloves according to the aspect of the invention were made of 5 composite yarns produced in Example 1 by a 7-gauge knitted-gloves manufacturing machine (made by SHIMA SEIKI MFG., LTD.). In terms of the cut resistance, the knitted gloves according to the aspect of the invention were resistant to 16,256 cuts. As a reference, reference knitted gloves were made of 5 yarns of no. 20/2 count and 100% made of Twaron, by a 7-gauge knitted-gloves manufacturing machine (made by SHIMA SEIKI MFG., LTD.). In terms of the cut resistance, the reference knitted gloves were resistant to 16 cuts. The knitted gloves according to the aspect of the invention did not exhibit as good wearing comfortableness as the reference knitted gloves because the knitted gloves according to the aspect of

the invention had the hard-touching texture. However, the knitted gloves according to the aspect of the invention were usable with no problem. In addition, the knitted gloves according to the aspect of the invention were manufactured at lower cost than the reference knitted gloves.

問3

1. A tensioner (10) for use in a belt drive system, comprising:
 - a cylinder (11) internally having a first bore (13) and an oil path (18) communicating with the first bore (13);
 - a piston (12) internally having a second bore (17), the piston (12) inserted in the first bore (13);
 - a coil spring (16) slidably housed within the second bore (17), ends of the coil spring (16) respectively contacting a bottom of the second bore (17) and a bottom of the first bore (13); and
 - a check valve (19) configured to permit hydraulic oil to flow from the oil path (18) to the first bore (13), but restrict the hydraulic oil from flowing reversely, wherein
 - an outer circumference of the piston (12) is partially provided with a piston rack (20), and
 - the cylinder (11) includes: an opening hole (22) communicating with the first bore (13); a cylinder rack (21) engaging with the piston rack (20) through the opening hole (22); and a biasing section (25) biasing the cylinder rack (21) toward the piston rack (20).