Feb. 9, 1932. A. E. SPINASSE 1,844,049

METHOD OF AND APPARATUS FOR DRAWING GLASS

Filed March 27, 1924

Fig. 1.

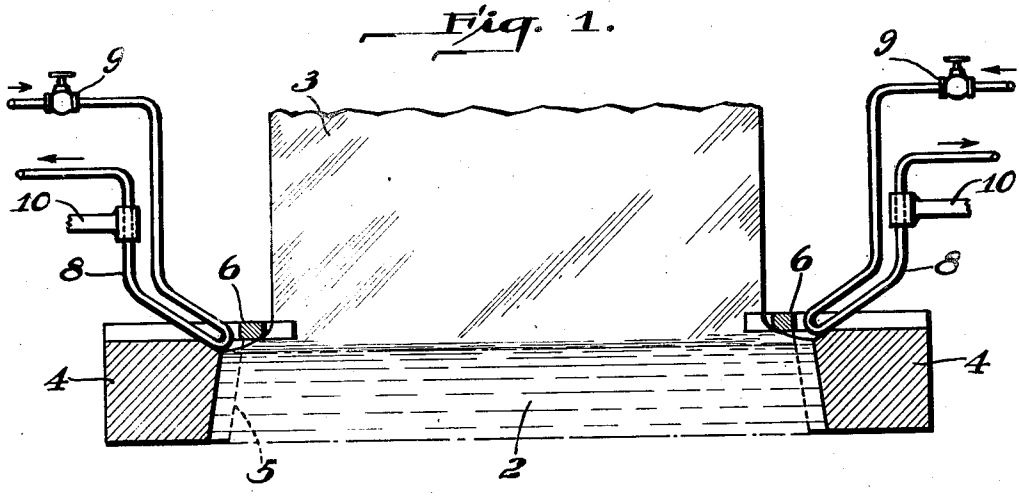
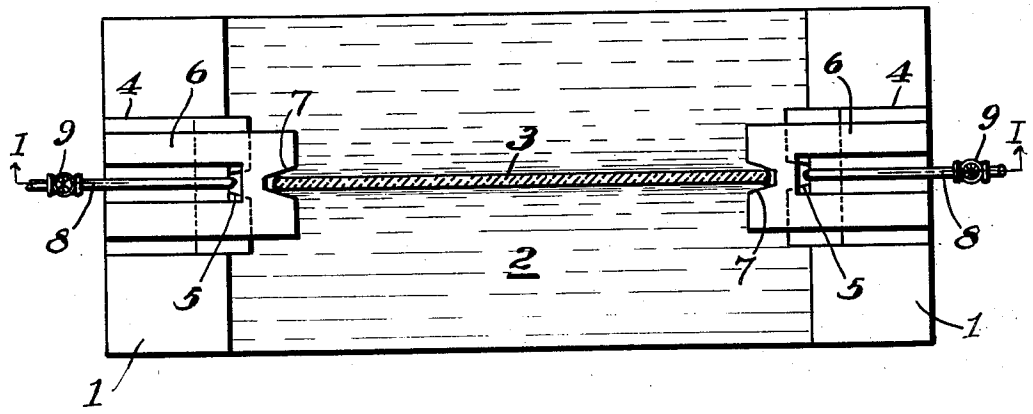


Fig. 2.



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UNITED STATES PATENT OFFICE

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METHOD OF AND APPARATUS FOR DRAWING GLASS

Application filed March 27, 1924. Serial No. 702,198.

This invention relates to the drawing of flat sheet glass substantially uniform in thickness throughout its width and including the extreme side edges or margin portions thereof, without the use of any forming device for the body portion of the sheet between the edges or margin portions thereof at its source of generation. It further comprises specific means and method of procedure providing points of anchorage so localized and restricted at the edge or margin producing portions of the glass, that the drawn edges or margin portions of the sheet form in substantially the same thickness as that of the finished body portion of the sheet.

One embodiment of the invention is shown in the accompanying drawings wherein:

Figure 1 is a vertical section through the apparatus on the line I—I of Fig. 2. And Fig. 2 is a plan view.

Referring to the drawings, 1, 1 (Fig. 2) are the side walls of a drawing tank, containing a body of molten glass 2 from which the sheet 3 is drawn by any suitable means (not shown).

The rear ends of the members 6, 6 are preferably slotted to receive the ends of the pipes 8, 8. Cooling means, such as air or water may be supplied through these pipes to control the temperature of the blocks 4, 4 and plates 6, 6 and that of the body of glass anchored in the slots 5, 5. The pipes are provided with suitable regulating valves 9, 9 and are supported by means of suitable brackets 10, 10.

The cooling, as provided by the pipes 8, 8, increases the adhesion of the glass to the blocks 4, 4, so that the width of the sheet is maintained, the edges of such sheet passing through the slots 7, 7 and being maintained of substantially the same thickness as the body of the sheet, although this may be adjusted to meet requirements so that a slight thickening of the edge may be permitted, if desired.

What I claim is:

1. A device of the class described comprising a pair of open-ended slot means engaging the sheet edge producing portion of the glass, one on each side of the sheet, said slot means being composed of a refractory clay member partially immersed in the glass and a metal member above the surface of the glass.

2. A device of the class described comprising a pair of independent slot means engaging the sheet edge-margin producing portion of the glass, one on each side of the sheet, said slot means being composed of a refractory clay member partially immersed in the glass and a metal member above the surface of the glass, and means for cooling the glass in the refractory clay member.

3. A device of the class described comprising a pair of sheet edge anchor forming members, one on each side of the sheet, each member comprising a refractory clay body and a metal member forming a slot engaging the sheet edge producing portion of the glass.

4. A device of the class described, comprising a pair of sheet edge anchor forming members, one on each side of the sheet, each member comprising a lower refractory clay body and an upper metal member forming each a slot engaging the sheet edge producing portion of the glass, the slot in the metal member being narrower in cross section than the slot in the refractory clay body beneath.

5. A device of the class described comprising a pair of sheet edge anchor forming members one on each side of the sheet, each member comprising a lower refractory clay body and an upper metal member forming each a slot engaging the sheet edge producing portion of the glass, the slot in the metal member being narrower in cross section and projecting beyond the slot in the refractory clay body, and means for modifying and controlling the temperature of the glass in the refractory clay body.

6. In apparatus for drawing sheet glass, a receptacle having opposite side walls and adapted for containing a bath of molten glass at a particular level from which to draw the sheet transversely thereof, an open slotted refractory clay block at each side wall of the receptacle disposed to receive molten glass from the bath adjacent the source of the edges of the sheet glass being drawn, means for regulating the temperature of the glass

within the slot in said refractory clay block, and a metallic shielding plate above each block having each a substantially V-shaped open slot therein, said slotted metallic shielding plate projecting above the bath beyond said block to receive the rising border portion of the thickly drawn meniscus which forms the sheet, and the walls of the slot in said metallic shielding plate normally contacting with the side of said border portion during drawing.

In testimony whereof, I affix my signature.

ARTHUR E. SPINASSE.