March 31, 1931. J. ROTHERAM 1,798,633

PLATE GLASS POLISHING BLOCK

Filed Dec. 22, 1928 2 Sheets-Sheet 1

Fig. 1.

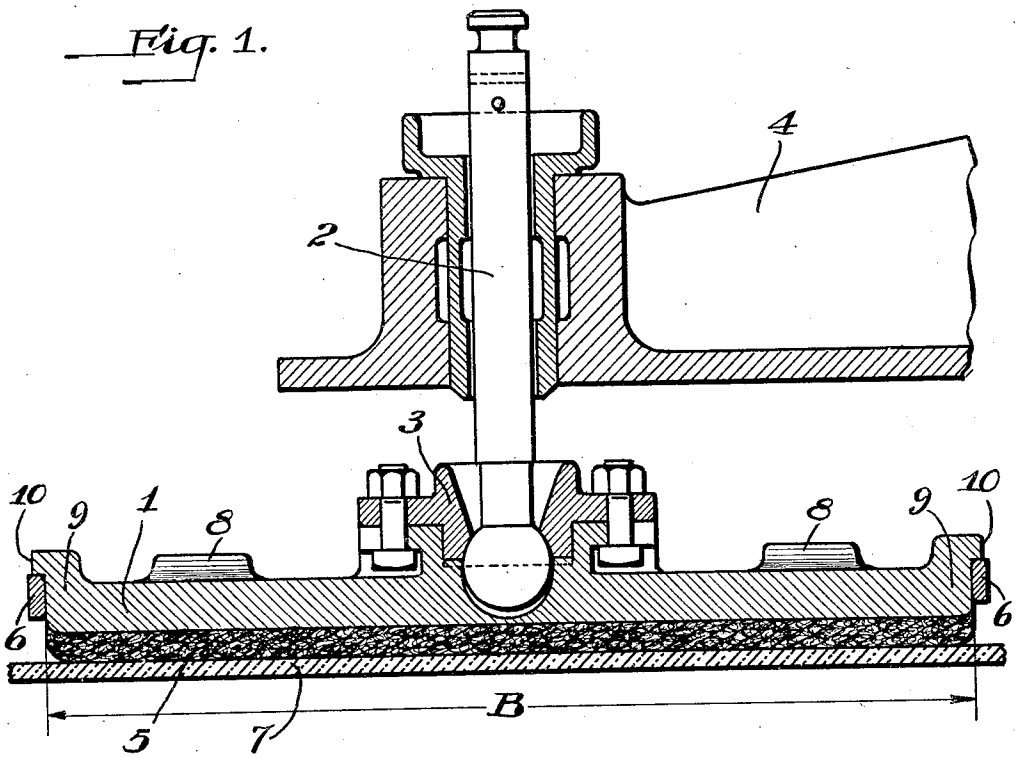
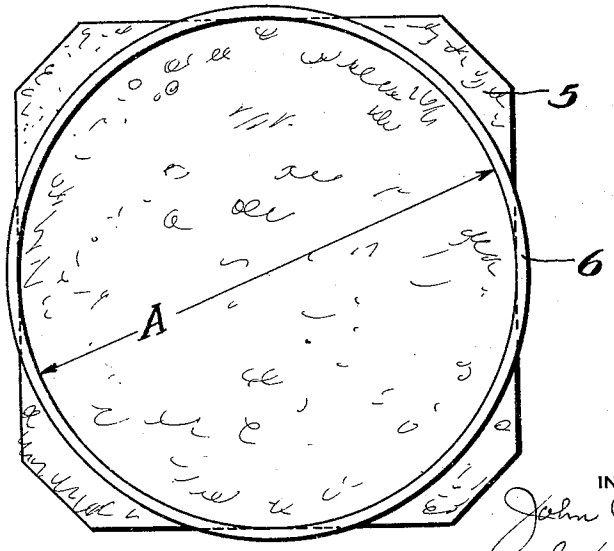


Fig. 5.



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Fig. 2.

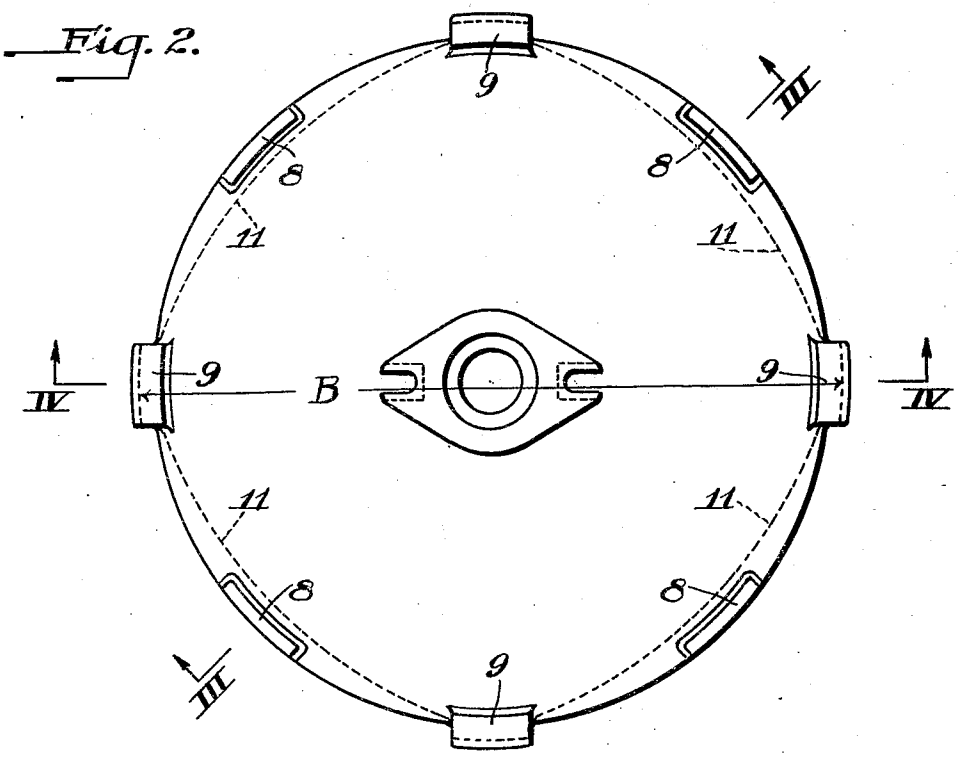


Fig. 3.

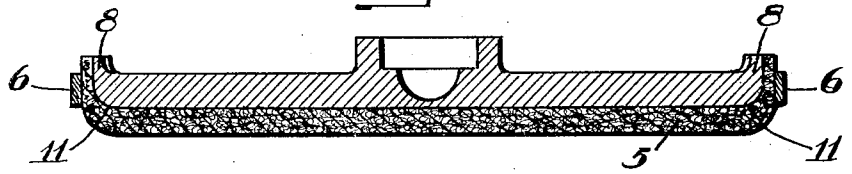
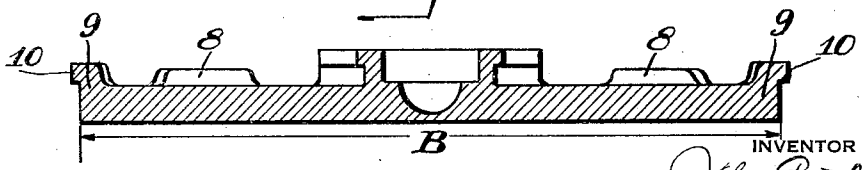


Fig. 4.



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UNITED STATES PATENT OFFICE

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PLATE-GLASS-POLISHING BLOCK

Application filed December 22, 1928. Serial No. 327,971.

The invention relates to blocks or runners for polishing plate glass, and has for its objects the provision of an improved means for securing the felt to the metal body of the block. Heretofore the rectangular sheet of felt has been secured by a clamping ring fitting around the metal body of the block and around the turned up corners of the felt sheet. This forms a secure attachment as long as the felt remains intact, but in the course of time one of the corners may be torn loose or the felt may lose its resistance to such an extent that the ring becomes loose and drops down, thus scratching or cracking the glass. The present invention overcomes this difficulty, the arrangement being such that the clamping ring will never loosen on the block, and drop down regardless of anything which may happen to the felt. One embodiment of the invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a section through the complete block in position of use, such section being taken on a line corresponding to the line IV—IV of Fig. 2. Fig. 2 is a plan view of the metal body or plate. Figs. 3 and 4 are sections on the lines III—III and IV—IV respectively of Fig. 1. And Fig. 5 is a plan view showing the clamping ring seated upon the polishing felt to illustrate their relative over-all proportions.

Referring to the drawings, 1 is the metal body portion of the block secured to the pin or shaft 2 by means of the usual clamp 3, the pin in turn being mounted for rotation in the arm 4 of a polishing runner, and 5 is the polishing felt held on the body portion or plate 1 by the clamping ring 6. In operation the felt engages the glass sheet 7 to be polished as indicated in Fig. 1.

The felt 5 is of general rectangular shape, as indicated in Fig. 5, with the corners cut off, and when applied to the bottom of the plate 1, the corner portions are turned up along the edge of the plate, as indicated in Fig. 3, such corners coming opposite the four lugs 8, 8, 8, 8 which extend upward from the top of the plate 1. The plate 1 is also provided with four other lugs 9, 9, 9, 9 projecting out past the edge of the plate. The clamping ring 6 which secures the corners of the felt 5 to the periphery of the plates has an interior diameter A (Fig. 5) which is just equal to the diameter B (Figs. 1, 2 and 4) which is the diameter of the plate at the lugs 9, 9, so that when the ring is driven over the plate to clamp the corners of the felt, it has a tight metal to metal fit with the outer surfaces of the lugs 9, 9, 9, 9. The tightness of this fit with the lugs 9, 9, 9, 9 is increased, due to the fact that the driven fit of the ring over the felt tends to distort the ring and thus decrease its diameter A at the lugs 9, 9, 9, 9. The ring, therefore, stays permanently in position due to its tight metal to metal fit with the lugs, regardless of what may happen to the felt, so that the ring will never drop off, even after the felt loses some of its elasticity or one or more of the corners are torn off. The lugs 9, 9, 9, 9 are preferably provided with shoulders 10 (Figs. 1 and 4) for engaging the upper edge of the clamping ring and limiting its movement when it is pressed or driven to clamping position. The corners of the plate are rounded as indicated at 11 (Figs. 2 and 11) to avoid giving the felt a sharp turn at these points, which would tend to cause it to crack and decrease its life. While the clamping ring is guarded against accidental removal during service, it may be readily driven off when it becomes necessary to remove the worn felt in order to replace it with a new one.

What I claim is:

1. In combination in a polishing block, a body portion in the form of a horizontal circular metal plate having at spaced intervals lugs projecting out beyond the edge of the plate, a sheet of felt extending over the bottom of the disc and having corner portions intermediate said lugs turned up over the edge of the plate, and a ring around the edge of the plate having a driving fit over said lugs and in clamping engagement with the turned up corner portions of the sheet of felt.

2. In combination in a polishing block, a body portion in the form of a horizontal circular metal plate having at spaced intervals lugs projecting out beyond the edge of the plate, a sheet of felt extending over the bot-

tom of the disc and having corner portions intermediate said lugs turned up over the edge of the plate, and a ring around the edge of the plate having a driving fit over said lugs and in clamping engagement with the turned up corner portions of the sheet of felt, said lugs being provided with stop shoulders for engaging the upper edge of said ring.

In testimony whereof, I have hereunto subscribed my name this 4th day of December, 1928.

JOHN ROTHERAM.