

W. B. MAYO.
GLASS GRINDING DISK.
APPLICATION FILED JAN. 3, 1911.

986,480.

Patented Mar. 14, 1911.

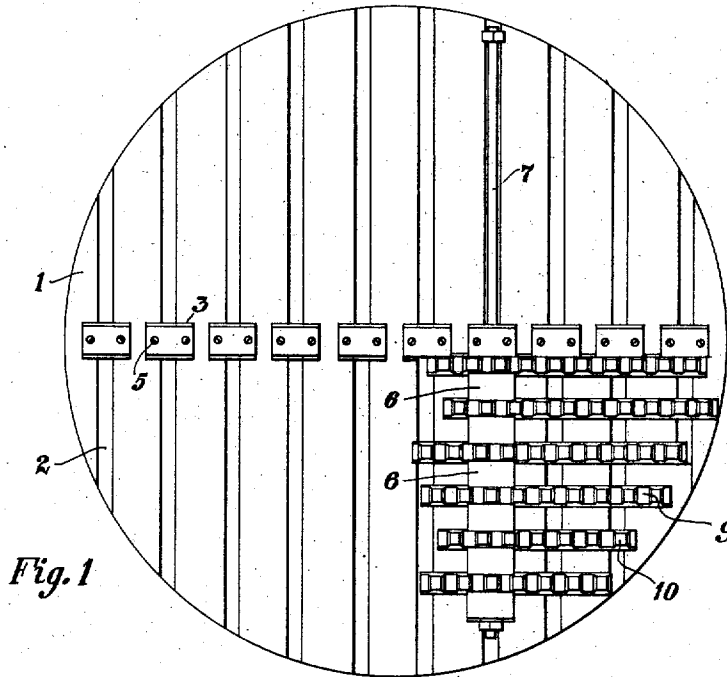


Fig. 1

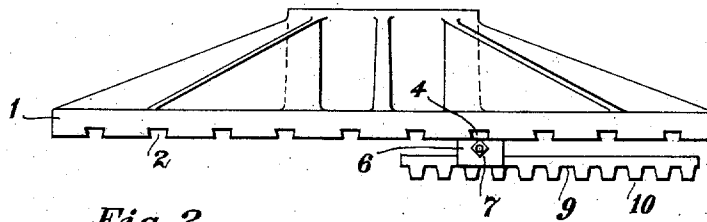


Fig. 2

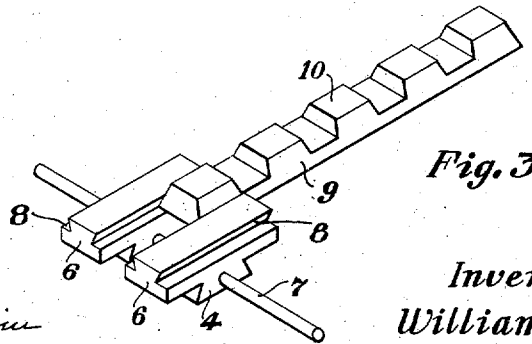


Fig. 3

Witnesses

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GLASS-GRINDING DISK.

986,480.

Specification of Letters Patent. Patented Mar. 14, 1911.

Application filed January 3, 1911. Serial No. 600,500.

To all whom it may concern:

Be it known that I, WILLIAM B. MAYO, a citizen of the United States, residing at Hamilton, Butler county, Ohio, have invented certain new and useful Improvements in Glass-Grinding Disks, of which the following is a specification.

This invention pertains to improvements in the grinding disks of glass grinding machines of that type in which a sheet of glass is secured to the surface of a rotating table and ground upon its upper surface by means of a suspended disk free for rotation and set eccentric to the table, the lower face of the disk being armed with metallic runner-blocks, abrasive material being applied to the glass while being operated upon by the runner-blocks of the disk.

The present invention relates to the system by which the runner-blocks are secured to the disk, the aim of the invention being to provide for equipping the disk with new or repaired runner-blocks without necessitating the removal of the disk from the machine.

The invention will be readily understood from the following description taken in connection with the accompanying drawing in which:—

Figure 1 is a view of the lower face of a grinding disk exemplifying my invention, the disk being illustrated as but partially equipped with the runner-blocks. Fig. 2 an edge view of the disk; and Fig. 3, a perspective view of one of the runner-blocks and a pair of the clamps.

In the drawing:—1, indicates the usual grinding disk; 2, a series of parallel dovetail grooves extending across the lower face of the disk; 3, a series of clamp-blocks at the face of the disk and extending diametrically across the disk at right angles to the grooves, there being one of these blocks for each groove; 4, dovetails projecting from the top of each block and fitting and engaging the appropriate grooves so that the blocks may be held snugly in their grooves; 5, fastenings, as screws, securing this series of clamp-blocks against movement in their grooves; 6, other similar clamp-blocks disposed in the grooves but left free for sliding motion in the grooves, each of the grooves at each side of the central series of blocks being provided with a number of the sliding clamp-

blocks; 7, a bolt passing through all of the clamp-blocks pertaining to a given groove, and serving as means by which all of the sliding clamp-blocks may be drawn toward the central series of clamp-blocks; 8, dove-tail jaws formed on the lower faces of all the clamp-blocks, the faces of these jaws extending in a direction at right angles to the grooves; 9, the runner-bars, the same having their tops of dove-tail cross-section to be properly engaged by the jaws 8 of the clamp-blocks; and 10, the grinding bosses projecting down from the bases of the runner-bars and having lower surfaces to act upon the glass.

The runner-bars may be of usual material and general dimensions, and it is recommended that each runner-bar carry about six of the grinding bosses. As the bars are easily broken between the bosses they may be varied in length to properly fill out the lines of runner-bars in the disk.

The clamp-blocks are to be made with accuracy, and the vertical dimension of the runner-bars is, by proper machining or grinding, to be made uniform for all of the runner-blocks to be employed.

The disk being idle, and empty of runner-bars, runner-bars are to be poked into the spaces between the fixed central line of clamp-blocks and the contiguous lines of clamp-blocks, enough runner-bars being applied to extend from edge to edge of the disk. In a similar manner the spaces between all of the other clamp-blocks are to be filled with runner-bars, after which the bolts are to be tightened up in order to clamp all of the runner-bars firmly to the disk. The fixing of the central line of clamp-blocks to the disk is not at all essential, but it is preferable as it provides for the other clamp-blocks being drawn toward a fixed diametrical line of the disk instead of leaving all of the clamp-blocks in a given groove to move in one direction. It is advisable, in placing the runner-bars in the clamps, to see that the abutting of the bars takes place within a pair of clamp-blocks instead of between two pairs of clamp-blocks, thus insuring the security of the runner-bars even if a bar breaks between grinding bosses, and for the same reason it is advisable to place the grooves but short distances from each other so that a

runner-bar needs to stretch but a very short distance from one of its clamps to the next clamp.

I claim:—

5 1. A glass grinding disk comprising, a disk, a series of sliding clamp-blocks carried by the lower face of the disk, means for forcing the clamp-blocks toward each other, and runner-bars clamped between the
10 clamp-blocks, combined substantially as set forth.

15 2. A glass grinding disk comprising, a disk provided with a series of parallel grooves in its under face, clamp-blocks arranged in series to slide in each set of
15 grooves, means for drawing the clamp-blocks of a series toward each other, and runner-bars clamped between the clamp-blocks, combined substantially as set forth.

20 3. A glass grinding disk comprising, a disk provided with a series of parallel grooves in its under face, clamp-blocks ar-

ranged in series to slide in each set of grooves, means for drawing the clamp-blocks of a series toward each other, runner- 25 bars clamped between the clamp-blocks, and means for securing one clamp-block in each series against sliding in its groove, combined substantially as set forth.

4. A glass grinding disk comprising, a 30 disk provided with dovetail grooves in its lower face, clamp-blocks having top dovetailed projections slidably engaging said grooves, a bolt passing through the series of clamp-blocks in each groove, dovetail jaws 35 projecting down from the clamp-blocks, and runner-bars dovetailed in cross-section to be engaged by the jaws of the clamp-blocks, combined substantially as set forth.

WILLIAM B. MAYO.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
