

J. ALLSOPP.
GLASS GRINDING APPARATUS.
APPLICATION FILED APR. 6, 1912.

1,076,012.

Patented Oct. 21, 1913.

FIG.1.

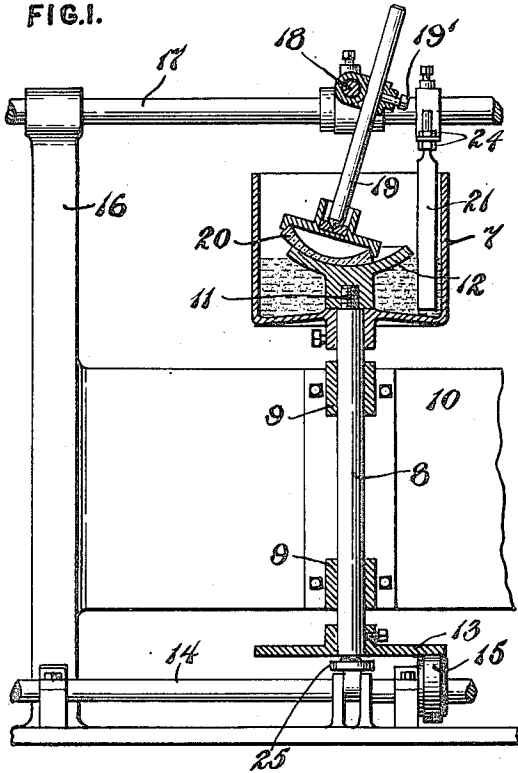


FIG.2.

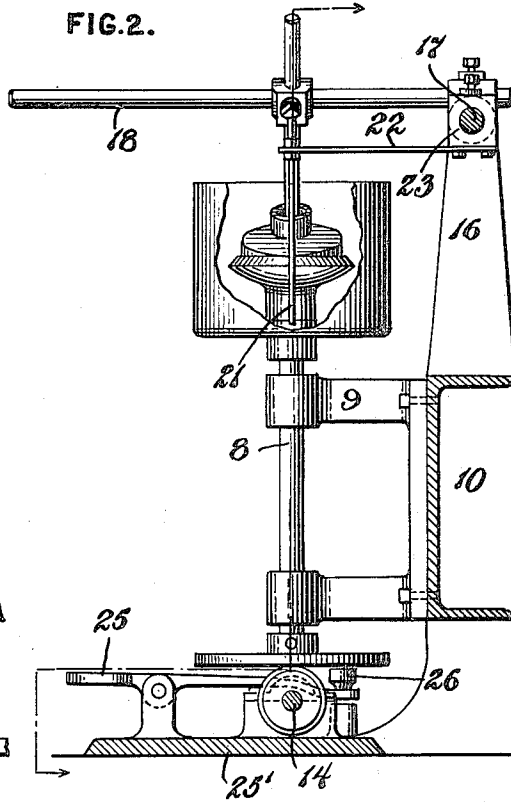
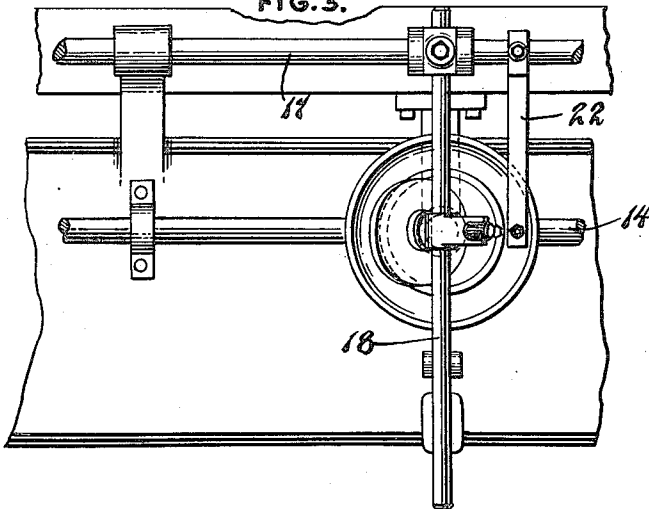


FIG.3.



WITNESSES

Julian H. Hendig.
Norway L. Lechner

INVENTOR

Joseph Allsopp
by *Paul Symes tredd*

UNITED STATES PATENT OFFICE.

JOSEPH ALLSOPP, OF CHARLEROI, PENNSYLVANIA, ASSIGNOR TO THE MACBETH-EVANS GLASS COMPANY, OF PITTSBURGH, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

GLASS-GRINDING APPARATUS.

1,076,012.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH ALLSOPP, a citizen of the United States, residing at Charleroi, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Glass-Grinding Apparatus, of which the following is a specification.

This invention has reference to glass grinding apparatus and particularly to mechanism for grinding lenses and the like, and it has for its primary objects the re-use of the abrasive, the provision of improved means for maintaining a substantially continuous application of abrasive material to the grinding surfaces; and the provision in apparatus of the character described of an improved splash mechanism to dash abrasive over the grinding surfaces and to stir the abrasive, preventing sedimentation thereof.

These, together with such other objects as may hereinafter appear or are incidental to my invention I attain by means of mechanism which I have illustrated in preferred form in the accompanying drawings, wherein: Figure 1 is a longitudinal section through my improved mechanism; Fig. 2 is an end elevation of Figure 1 with the parts partially broken away to disclose details of the invention; and Fig. 3 is a plan view of the apparatus shown in Fig. 1.

Referring to Figure 1, it will be seen that I have illustrated a grinding mechanism composed of a receptacle or basin 7 adapted to contain an abrasive mixture of sand and water of any desired consistency, the basin being mounted on a vertical shaft 8 so as to rotate therewith. The shaft 8 is mounted for vertical movement in the brackets 9 which are bolted to the frame-work 10, and it is provided at its upper end with a reduced threaded portion 11 on which is mounted a grinding disk 12 which may be of any desired configuration. Secured to the lower end of the shaft 8 is a disk 13 which is driven from the horizontal driving shaft 14 by means of the driving wheel 15. Mounted in the standard 16 of the frame-work 10 is a longitudinal supporting rod 17 on which a transverse supporting rod 18 is adjustably mounted, the transverse supporting rod being adapted to carry the holder or chuck 19 in which the glass or lens 20 is fastened in the usual manner. The chuck 19 is ro-

tatably mounted on the rod 18 so that it may be rocked to work the glass back and forth across the surface of the grinding disk. The elevation of the chuck may be readily varied by the set-screw 19'. In order to supply the grinding disk with abrasive, I have provided a splash or dash mechanism which comprises a flat blade 21 which projects into the basin 7 and which is mounted on the bracket 22 bolted to the block 23 which is adjustably carried on the main supporting rod 17. The splash blade 21 may be vertically adjusted by means of the nuts 24. The disk 13 is normally held in engagement with the driving wheel 15 by gravity and when it is desired to stop the rotation of the shaft 8 and basin 7, the foot treadle 25, mounted on the base portion 25' of the apparatus, is pressed down and the disk 13 elevated out of engagement with the driving wheel 15 by means of the buffer or brake 26 mounted on the end of the treadle.

It will be noted that as the basin 7 is rotated, by the shaft 8, a quantity of abrasive will be dashed onto the grinding surface of the disk 12 by the splash blade 21, thus securing a practically continuous application of abrasive to the grinding surface. It will also be apparent that this arrangement will prevent sedimentation of the abrasive and maintain it in the best condition for effective and continuous operation. The device is simple and readily adaptable for various grinding operations, and the splash blade may be adjusted to suit varying conditions.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent is the following:

1. A glass grinding apparatus comprising in combination, a frame, a grinding mechanism rotatably mounted in the frame and having a detachable grinding disk, said mechanism being adapted to contain an abrasive mixture, a bar mounted in a frame above the grinding mechanism, a work chuck detachably secured to the bar, a dash member slidably mounted on said bar and adapted to dash abrasive on the grinding disk, and means for detachably locking the dash member in position.

2. A glass grinding apparatus comprising in combination a frame, a rotary receptacle mounted in the frame adapted to contain an abrasive mixture, a grinding mechanism

within said receptacle, a work chuck detachably carried on the frame and projecting into the receptacle, a dash member projecting into the receptacle and slidably mounted for movement toward and from the work chuck, and means for detachably locking the dash member in position.

In testimony whereof I have hereunto signed my name in the presence of the two subscribed witnesses.

JOSEPH ALLSOPP.

Witnesses:

L. P. FLICKINGER,
C. R. PEREGRINE.