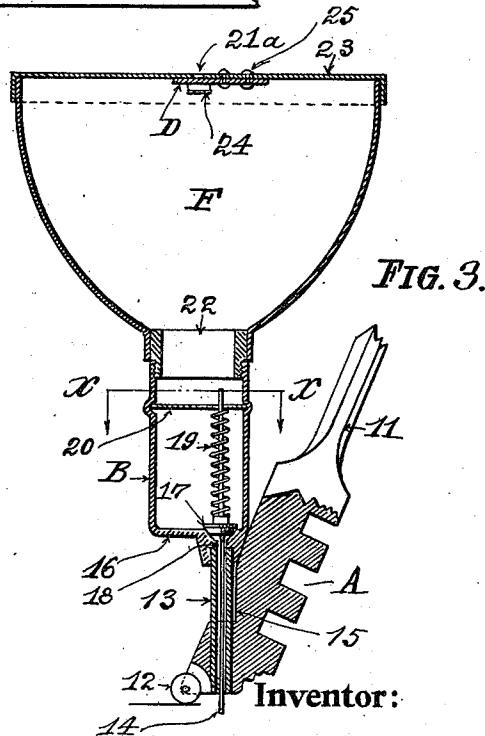
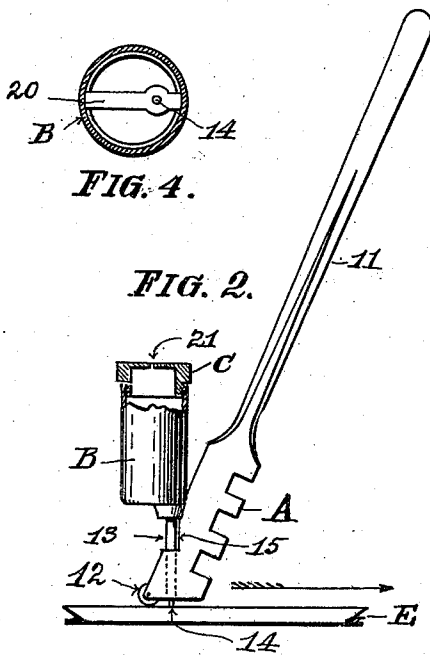
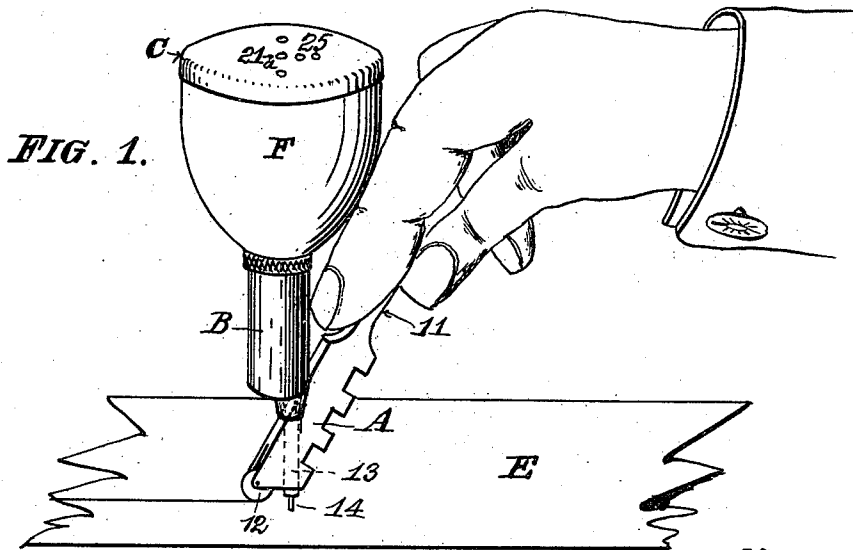


A. W. HORNIG.
HAND OPERATED GLASS CUTTER.
APPLICATION FILED SEPT. 3, 1910.

989,603.

Patented Apr. 18, 1911.



Witnesses:

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UNITED STATES PATENT OFFICE.

AUGUST W. HORNIG, OF CHICAGO, ILLINOIS.

HAND-OPERATED GLASS-CUTTER.

989,603.

Specification of Letters Patent.

Patented Apr. 18, 1911.

Application filed September 3, 1910. Serial No. 580,350.

To all whom it may concern:

Be it known that I, AUGUST W. HORNIG, a citizen of the United States, and resident of Chicago, in Cook county, Illinois, have
5 invented certain new and useful Improvements in Hand-Operated Glass-Cutters; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of
10 drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to
15 glass cutters; and it consists, essentially, in the novel and peculiar construction of parts and details of combinations as hereinafter first fully set forth and described and then pointed out in the claims.

20 In the drawings already mentioned, which serve to illustrate this invention more fully, Figure 1 is a perspective view showing the application of this improved glass cutter. Fig. 2 is a side elevation of the same. Fig.
25 3 is a longitudinal sectional elevation on an increased scale, and Fig. 4 is a sectional plan on line *x x* of Fig. 3.

Like parts are designated by corresponding symbols and characters of reference in
30 all the figures.

The object of this invention is to facilitate the cutting of glass by means of a rotating cutter or scoring wheel. This cutter, while very extensively used, is nevertheless
35 open to the objection that it is difficult to produce a clean cut with the same, and that considerable glass is broken owing to this imperfection. To remedy this defect, I provide the body A of this cutter, which has a
40 handle 11, for manipulating the same, and a rotating wheel 12, which is adapted to do the scoring of the glass, with a reservoir B, adapted to contain turpentine, coal oil, or other suitable liquid. This reservoir B has
45 a downwardly projecting tube 13, of comparatively small diameter, and in this tube 13, there is a rod 14, being the shank of a valve 17, said shank projecting slightly beyond the lower end of said tube 13.

50 In the cutter body A, I provide a notch 15, and from this notch 15 leads downwardly and angularly to the center line of said body, a passage adapted to receive the tube 13, which is long enough to slightly
55 project beyond the lower edge of the body

A, the reservoir B being thereby made removable from said body A.

In the bottom of the reservoir B, designated by the reference numeral 16, and at one side of the center line of the reservoir, but in axial line with the tube 13, I form
60 a valve seat upon which the valve 17 normally seats to close the exit passage 18, leading out of said reservoir to, and through the tube 13. The valve 17 has an upwardly
65 extending rod upon which is located a spiral spring 19, the lower end of which bears upon said valve 17, its upper end abutting against a cross bar 20, located near the
70 upper end of said reservoir, said spiral spring being adapted to retain said valve 17 in its normal, closed, position, and to return the same to this position after it has been unseated, as will hereinafter more fully appear.
75

The upper end of the reservoir is closed by a cap C, in which there is a minute orifice
21, as shown in Fig. 2, which orifice may be closed by a valve D, shown in Fig. 3, to prevent liquid from escaping from said reservoir when the device is turned on its side,
80 and to open to permit air to enter the reservoir when the device is in use, there being a guard 24, below said valve D to prevent its opening beyond a predetermined distance.
85

The shank 14 of the valve 17 is, as heretofore stated, of such a length that when the valve 17 is seated, it projects below the lower edge of the body A a short distance, so
90 that when the device is placed upon a sheet of glass E, this shank will be pushed upwardly to unseat the valve 17 to permit liquid to pass from the reservoir B and to spread upon the sheet of glass immediately
95 in front of the rotary cutter 12, the device being moved in the direction of the arrow shown in Fig. 2, whereby the sheet of glass is lubricated in a line immediately in advance of the cutter 12.
100

In general family use, and in establishments where not much cutting of glass is done, the reservoir B, as shown in Fig. 2, is ample to provide lubrication for a reasonable length of time, but in larger establishments, where the capacity of the reservoir B would be insufficient, I provide this reservoir with an extension F, by removing the cap C therefrom and substituting a collar
105 22, therefor, to which collar the extension F 110

is properly secured by screw-threaded engagement with the reservoir B, so that by removing the extension from the reservoir B, the said extension may be readily filled.

5 This extension is preferably of such an external contour that the operator's finger which presses upon the device in cutting, may not be interfered with. A pear-shape, as illustrated in Figs. 1 and 3, is very suitable for this purpose.

10 While I have heretofore described the preferred embodiment of my invention, I desire it understood that I am aware that details of construction as described, may be varied by persons skilled in the art to which my said invention appertains, without departing from the scope of the same.

Having thus fully described this invention, I claim as new and desire to secure to me by Letters Patent of the United States—

20 1. As an improved article of manufacture, a glass cutter, comprising a body having a handle, said body being slotted at its lower end and provided with a passage adjacent to
25 said slot, said passage being angular to a median line through said body, a rotatable wheel mounted in said slot at the lower end thereof, and a reservoir secured to said body, said body having a tube adapted to engage
30 said angularly disposed passage, there being in said reservoir a valve, said valve having a shank in said tube and normally projecting beyond the cutting line of said wheel, said stem being adapted to be raised to open
35 said valve when the device is applied to a glass surface and to discharge liquid from said reservoir to the cutting line of said wheel immediately in advance of said wheel.

40 2. A hand operated glass cutter, comprising a body having a handle as described, a cutting wheel at the lower end of said body,

a passage through said body in advance of said wheel, said passage being angular relative to the medial line of said body; and approximately vertical to the surface of the glass to be cut, a reservoir mounted in said passage, a discharge tube on said reservoir, a valve in said reservoir said valve having a stem passing through said discharge tube and projecting from the lower end thereof, 50 and a spiral spring adapted to keep said valve normally seated, whereby said valve is unseated when the device is applied to a sheet of glass, and a stream of liquid permitted to escape from said reservoir in close proximity to the lower end of said stem and the cutting wheel. 55

3. A hand-operated tool, comprising a body having a handle as described, said body being slotted at its lower end, a sharp-edged wheel mounted in said slot and adapted to score glass when rolled over the same, a reservoir adapted to contain liquid, a tube projecting from the lower end of said reservoir, there being near the lower end in said body a passage angularly disposed to a medial line through said body, and approximately vertical in relation to the glass surface when the device is in operative position, said passage being adapted to receive
70 said tube, a valve in said reservoir and normally seated therein, and means adapted to unseat said valve when said device is being operated, as set forth.

In testimony that I claim the foregoing as my invention, I have hereunto set my hand in the presence of two subscribing witnesses.

AUGUST W. HORNIG.

Witnesses:

MICHAEL J. STARK,
A. G. PETERSON.