

F. R. WOODWARD.
GLASS CUTTER.
APPLICATION FILED APR. 6, 1912.

1,102,843.

Patented July 7, 1914.

Fig. 1.

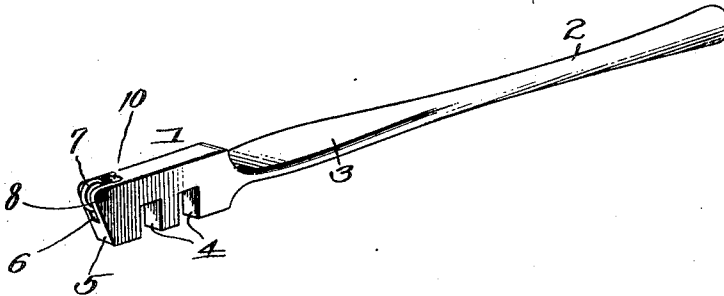


Fig. 2.

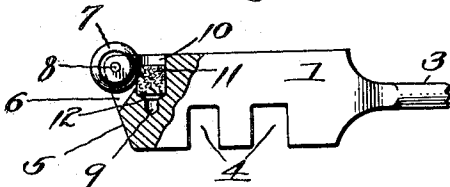


Fig. 3.

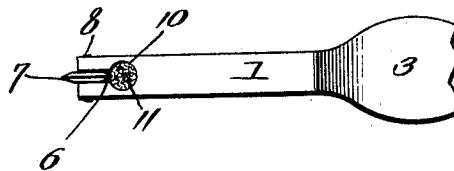


Fig. 4.

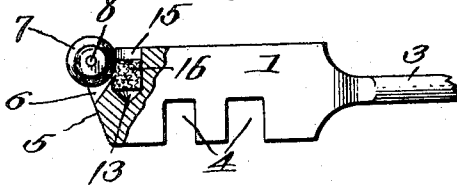
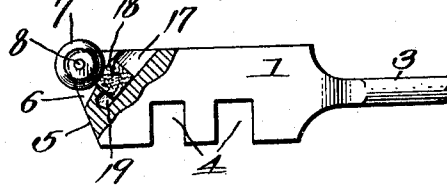


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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GLASS-CUTTER.

1,102,843.

Specification of Letters Patent.

Patented July 7, 1914.

Application filed April 6, 1912. Serial No. 688,976.

To all whom it may concern:

Be it known that I, FRANK R. WOODWARD, a citizen of the United States, residing at Hill, county of Merrimack, State of New Hampshire, have invented certain new and useful Improvements in Glass-Cutters, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to certain new and useful improvements in glass cutters and more particularly to means for lubricating the cutting wheel, the object being to provide a glass cutter with a lubricator which is exceedingly simple and cheap in construction and one which is provided with an oil chamber and a swab chamber, the swab chamber being so arranged that the absorbent material therein will apply the lubricant directly upon the cutting wheel.

Another object of the invention is to provide a glass cutter in which the oil reservoir is closed by the absorbent material and so formed that when the glass cutter is dipped into a lubricant, the surplus oil absorbed by the absorbent material will percolate into the oil chamber so as to maintain oil therein at all times, the chamber being so arranged in respect to the absorbent material that when the cutter is being used, the lubricant will pass back into the absorbent material as it is drawn therefrom by the cutting wheel.

A further object of the invention is to provide a lubricating device which can be readily applied to the ordinary glass cutter now in use by simply boring recesses into the head of the cutter adjacent the cutter wheel of different diameters.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claim.

In the drawing—Figure 1 is a perspective view of my improved cutter; Fig. 2 is a detail enlarged side elevation partly broken away showing the lubricating means; Fig. 3 is a top plan view of the head of the cutter, the handle being broken away; Fig. 4 is a side elevation partly in section showing a slightly modified form of lubricating device installed therein; and Fig. 5 is a similar view showing still another modified form of lubricating device.

Like numerals of reference refer to like parts in the several figures of the drawings.

In the drawing, 1 indicates a rectangular head having a handle 2 which is provided with the usual flattened portion 3 for facilitating the use of the cutter. The head 1 is provided with the usual breaking notches 4 and the end thereof is cut off obliquely as shown at 5 and bifurcated as shown at 6 in which is revolubly mounted a cutter wheel 7 upon a pin 8.

In the forms shown in Figs. 1, 2 and 3, an oil chamber 9 and a swab chamber 10 are formed in the head by boring bores of different diameters therein, the swab chamber intersecting the inner wall of the bifurcation of the head so that when the absorbent material 11 is forced into the position shown in Fig. 2, the cutting wheel 8 will embed itself therein in order to apply lubricant thereto. The absorbent material 11 is supplied with oil by dipping the head of the cutter into a can of lubricant, the surplus oil percolating therethrough into the oil chamber 9 so as to fill the same whereby when the cutter is thrown into operative position, the oil within the chamber will be absorbed by the absorbing material as demanded. By this construction, an annular shoulder 12 is formed by the bottom of the swab chamber at the junction of the oil chamber upon which the absorbent material rests and as shown the absorbent material is forced into the chamber so that an outer chamber is formed by the space between the absorbent material and the face of the head which will be filled when dipped into oil, the oil percolating through the absorbent material into the oil chamber when the cutter is moved into position as shown in Figs. 1 and 2.

In the modification shown in Fig. 4, the oil chamber 13 is formed by the point of the bit used for boring the swab chamber 15 which reduces the cost of manufacturing the same as it is only necessary to bore one hole within the head to form two chambers and the swab chamber in this case intersects the inner wall of the bifurcation so that when the absorbent material 16 is placed in position as shown, the lubricant will be applied directly to the cutting wheel.

In the modification shown in Fig. 5, the chambers are arranged obliquely therein by

first boring the swab chamber 17 with its lower end intersecting the inner wall of the bifurcation so that when the absorbent material 18 is in position as shown, the cutting wheel will be embedded in the lower portion thereof. The oil chamber 19 is then formed by boring with a bit of smaller diameter as clearly shown and by providing a glass cutter with chambers arranged in this manner, when dipped into a can of liquid, the upper portion of the swab chamber will retain a certain amount of liquid or lubricant when the cutter is placed in vertical position which facilitates the filling of the oil chamber. The chambers are so arranged in respect to each other that the oil will be fed back to the absorbent material as it is used by the cutting wheel.

From the foregoing description, it will be seen that I have provided a glass cutter which has the ordinary appearance with lubricating means so arranged and construct-

ed that the cost of manufacturing the cutter will not be increased to any extent and at the same time a highly efficient lubricating means is provided for keeping the cutting wheel lubricated when in use.

What I claim is—

A glass cutter having a bifurcated head in which is revolubly mounted a cutting wheel, a swab chamber formed in said head intersecting said bifurcation, an oil chamber formed at the bottom of said swab chamber, and absorbent material arranged within said swab chamber closing the oil chamber and engaging the cutter for supplying lubricant thereto.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK R. WOODWARD.

Witnesses:

FRANK PROCTOR,
G. B. CLEMENT.

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