W. G. STEBBINS.

GLASS CUTTER.

APPLICATION FILED JULY 7, 1908.

911,342. Patented Feb. 2, 1909.

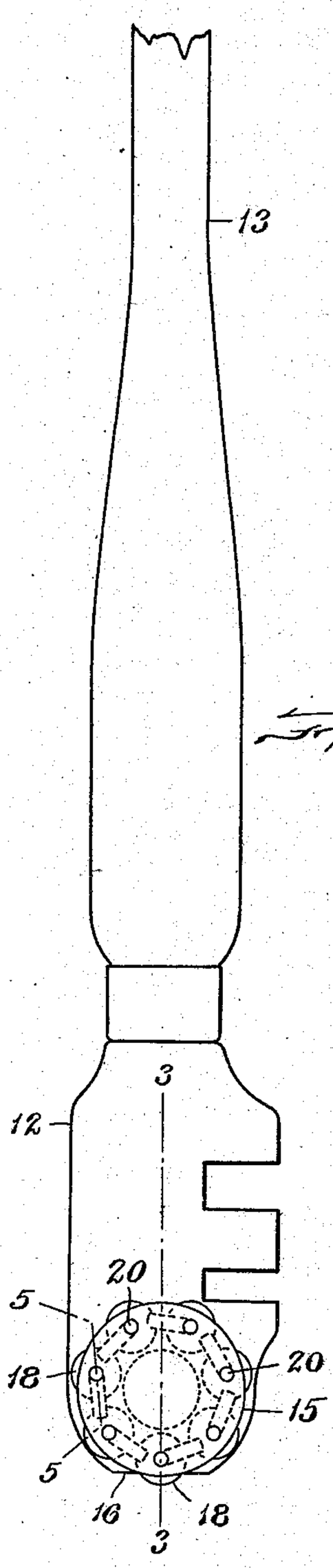

Fig. 1.

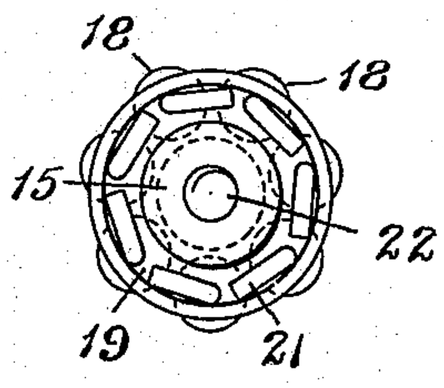

Fig. 4.

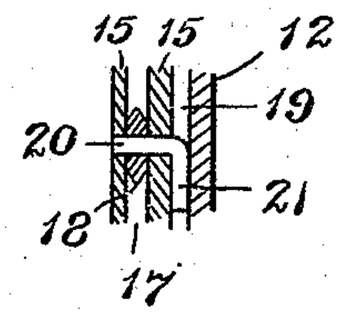

Fig. 5.

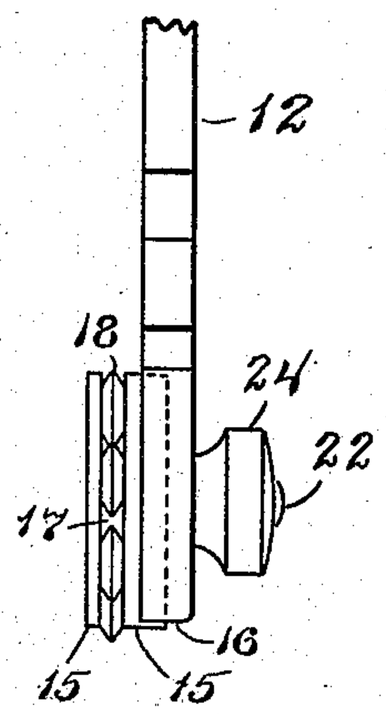

Fig. 2.

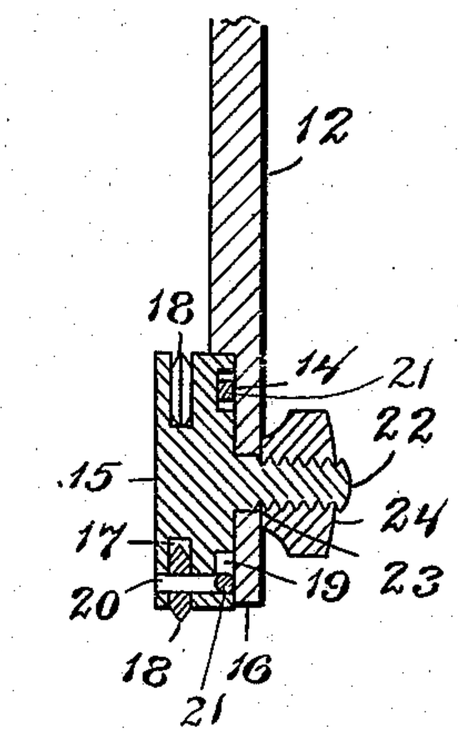

Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM G. STEBBINS, OF MONTAGUE, MASSACHUSETTS, ASSIGNOR TO MILLERS FALLS COMPANY, OF MILLERS FALLS, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

GLASS-CUTTER.

No. 911,342. Specification of Letters Patent. Patented Feb. 2, 1909.

Application filed July 7, 1908. Serial No. 442,417.

To all whom it may concern:

Be it known that I, WILLIAM G. STEBBINS, of Montague, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Glass-Cutters, of which the following is a specification.

This invention relates to a glass cutter having a plurality of edged cutting wheels of hardened steel mounted in a circular series on a head which is rotatively connected with a frame or holder, and is adapted to be clamped to the holder with either of the cutting wheels in position for operation.

The invention has for its object to provide certain improvements in the construction of the head, and in the means for mounting the edged cutting wheels therein, and in the means for adjustably securing the head to the holder, the said improvements being intended to facilitate the assemblage and separation of the parts, and the substitution of new parts, especially the studs or journals on which the cutting wheels are mounted, for others which may have been broken or worn.

The invention consists in the several improvements which I will now proceed to describe and claim.

Of the accompanying drawings forming a part of this specification, Figure 1 represents a side elevation on an enlarged scale of a glass cutter embodying my invention. Fig. 2 represents an edge view of the same. Fig. 3 represents a section on line 3—3 of Fig. 1. Fig. 4 represents a view of the inner side of the head or turret, hereinafter referred to, removed from the holder. Fig. 5 represents a fragmentary section on line 5—5 of Fig. 1.

The same reference characters indicate the same parts in all the figures.

In the drawings, 12 represents a frame or holder which is preferably a flat-sided plate provided at its inner end with a shank to which a suitable handle 13 is secured. In the outer end portion of the holder 12 is formed a circular recess 14, the bottom of said recess forming a seat for the inner side of a circular head or turret 15. The outer end of the holder 12 is cut away at 16, so that a portion of the periphery of the turret projects outwardly from the outer end of the holder, as shown in Figs. 1, 2, and 3. This formation of the head, while not absolutely essential, is preferred because it permits a suitable projection of the operating edged cutting wheel from the outer end of the holder, as hereinafter described.

The turret is provided with a deep peripheral groove 17 which is located between the outer and inner sides of the turret, and is adapted to receive a plurality of edged cutting wheels 18, of which any suitable number may be employed, seven being shown in this embodiment of the invention. In the inner side of the turret is formed an annular recess 19 which is concentric with the axis of the turret. The cutting wheels 18 are journaled upon bearings or studs 20 which are inserted in holes formed for their reception in the turret, and extend across the groove 17, the inner ends of said studs projecting into the annular recess 19. The studs 20 are provided with suitable heads at their inner ends, said heads being contained in the recess 19, and being confined in said recess by the seat 14; when the head is connected with the holder 12, the said seat and the walls of the recess 19 constituting an annular chamber which contains the heads of the studs. Said heads are preferably formed as arms 21, which are integral with the studs 20, the studs and arms, or heads, being formed by bending suitably shaped metal blanks into substantially the form shown in Fig. 5. The turret is provided with a screw-threaded shank or bolt 22, which is preferably integral with the turret, and projects from the inner side thereof through an orifice formed for its reception in the holder 12.

24 represents a clamping nut engaged with the bolt 22, and adapted to secure the turret rigidly to the holder. When the cutter is adjusted for use, one of its cutting wheels is brought into position to project from the outer end of the holder, as indicated in Fig. 1, the turret being then rigidly secured by tightening the nut 24. The cutter is used by pressing the projecting wheel against the glass to be cut, and moving it along the same in the usual manner. When the projecting wheel has become worn, the turret may be partially rotated to bring the next wheel into position for operation, and so on.

It will be seen that when the turret is removed from the holder, the recess 19 and the heads 21 are exposed, as shown in Fig. 4, so that said heads and the studs may be readily removed to permit the removal of the cut-

ting wheels, and again replaced to secure fresh cutting wheels to the turret. The recess 19 is wider than the heads 21, and this fact, together with the elongation of the heads, enables the latter to be conveniently grasped by suitable nippers, or otherwise, and conveniently removed from and applied to the turret, the heads being securely confined by the operation of applying the turret to the holder. When the turret has been charged with cutters, and is held with its recessed side uppermost, there is no liability of the displacement of the cutting wheels and the studs on which they are journaled, the wheels being securely confined in the groove 17 by the studs, and the studs being held in place by the confinement of their heads 21 in the recess 19. The bolt 22 projects from the recessed side of the turret; consequently, when the recessed side is uppermost, the bolt projects upwardly so that the holder 12 may be readily applied to it by moving the holder downwardly upon the bolt until the seat 14 bears upon the recessed side of the turret, the nut 24 being then applied and tightened to bind the turret firmly to the holder.

I do not limit myself to the specific form of the heads 21, here shown, as heads of any form adapted to be confined in the annular chamber formed by the recess 19 and the seat 14 may be employed. The elongated heads 21 bent from the studs 20 are preferred, however, on account of the convenience with which they may be grasped and manipulated.

It will be seen that the studs 20 are independently removable, so that in the event of excessive wear or breakage of either stud it can be renewed without discarding the turret and the other studs. The heads on the studs and the sides of the chamber 19 constitute means for detachably securing the studs independently of each other, while the sides of the groove 17 constitute means for confining the cutters on the studs.

I claim:

1. A glass cutter comprising a holder having a turret seat, a circular turret rotatively secured to the holder, and having an annular cutter groove between its sides, and an annular recess in its inner side, said recess and the turret seat forming an annular closed chamber, cutter supporting studs inserted in orifices in the portions of the turret forming the sides of the cutter groove, and disk cutters journaled on said studs within the cutter groove and projecting therefrom, the said studs having heads which occupy the said annular chamber.

2. A glass cutter comprising a holder having a turret seat, a circular turret rotatively secured to the holder, and having an annular cutter groove between its sides, and an annular recess in its inner side, said recess and the turret seat forming an annular closed chamber, cutter supporting studs inserted in orifices in the portions of the turret forming the sides of the cutter groove, and bent to form laterally extending arms constituting heads which occupy the said annular chamber, and disk cutters journaled on the studs within the cutter groove.

In testimony whereof I have affixed my signature, in presence of two witnesses.

WILLIAM G. STEBBINS.

Witnesses:

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