

(No Model.)

A. McL. ROWLAND.

GLASS CUTTER.

No. 396,600.

Patented Jan. 22, 1889.

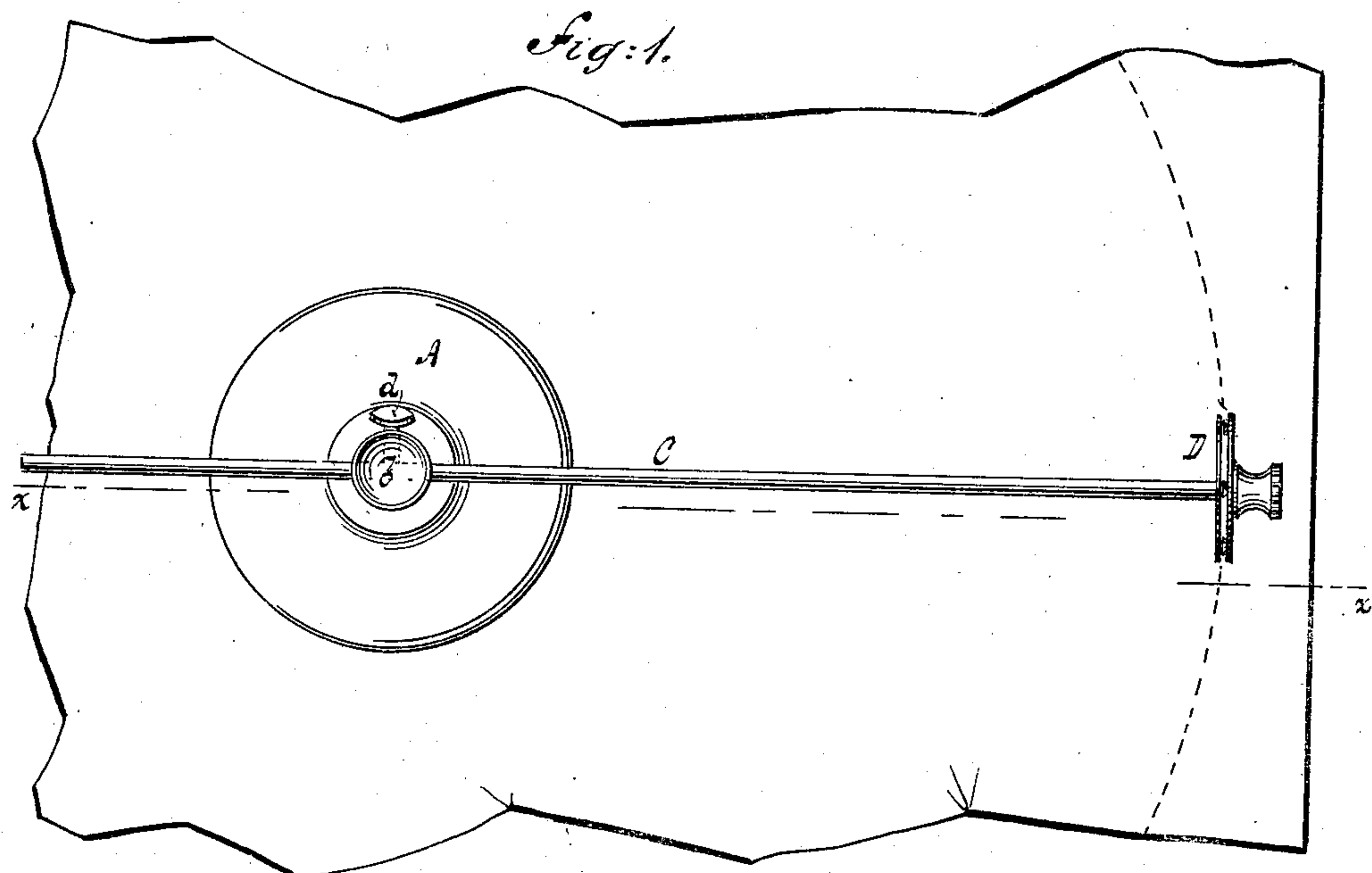


Fig: 3.

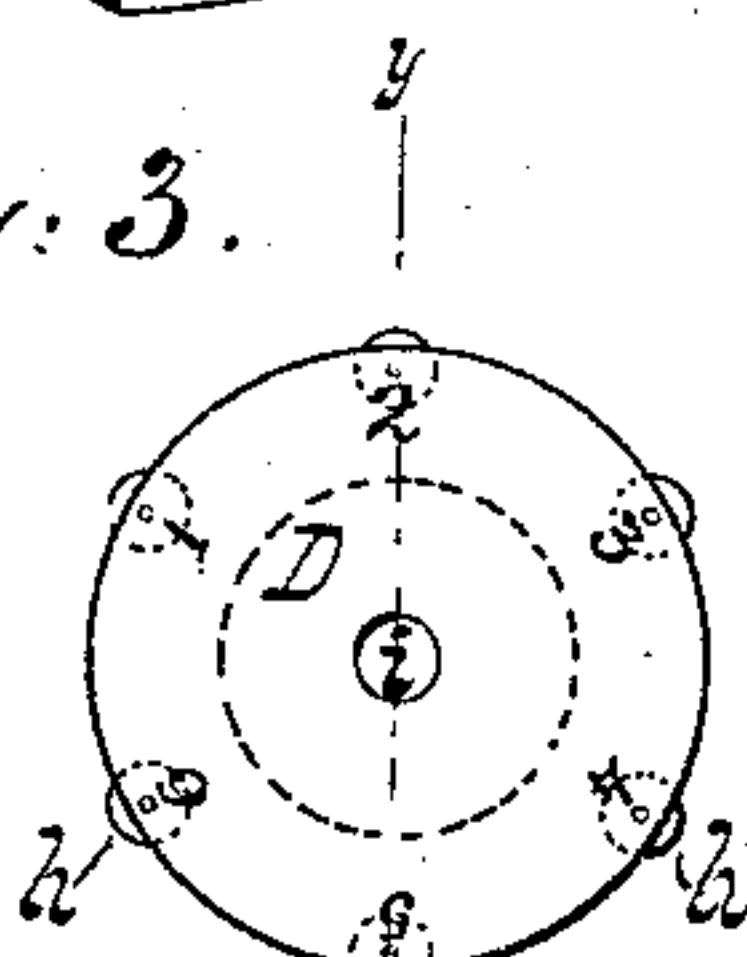


Fig: 4.

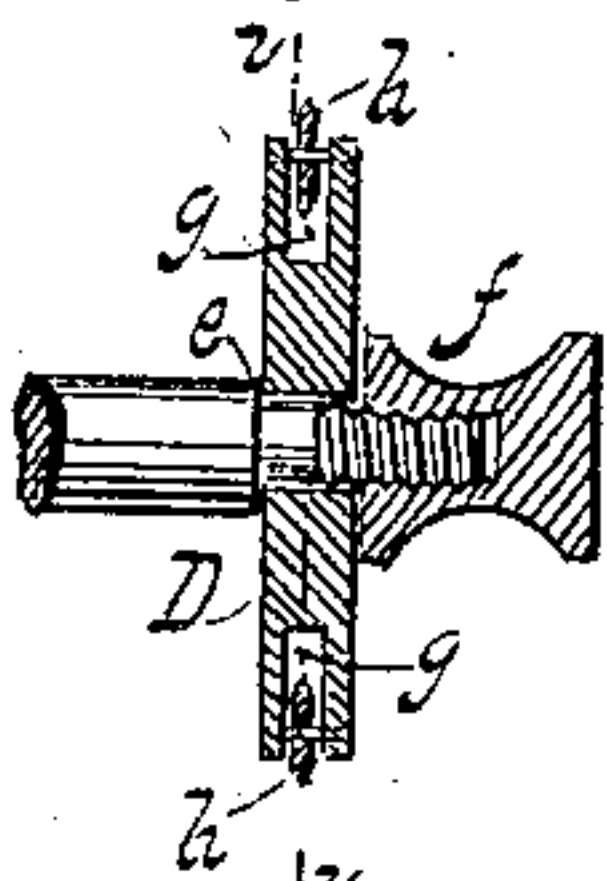


Fig: 5.

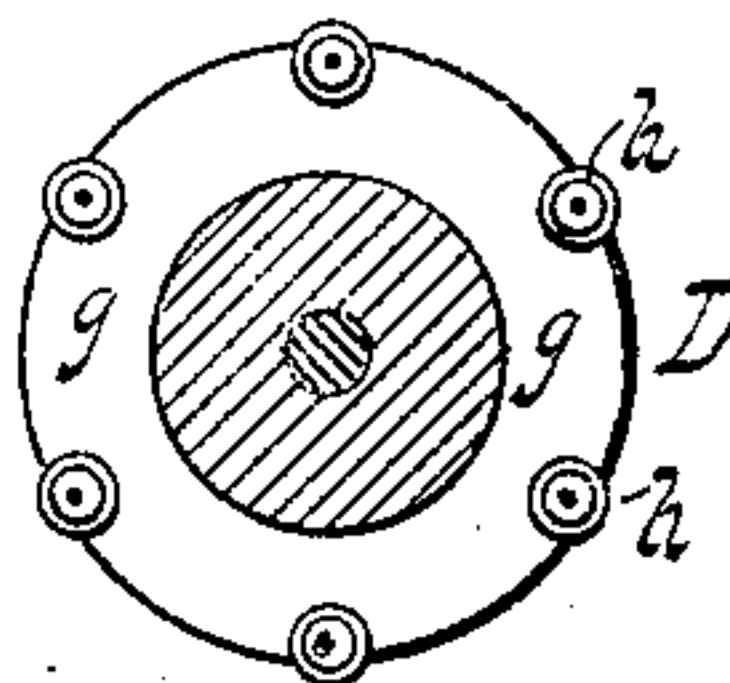


Fig: 2.

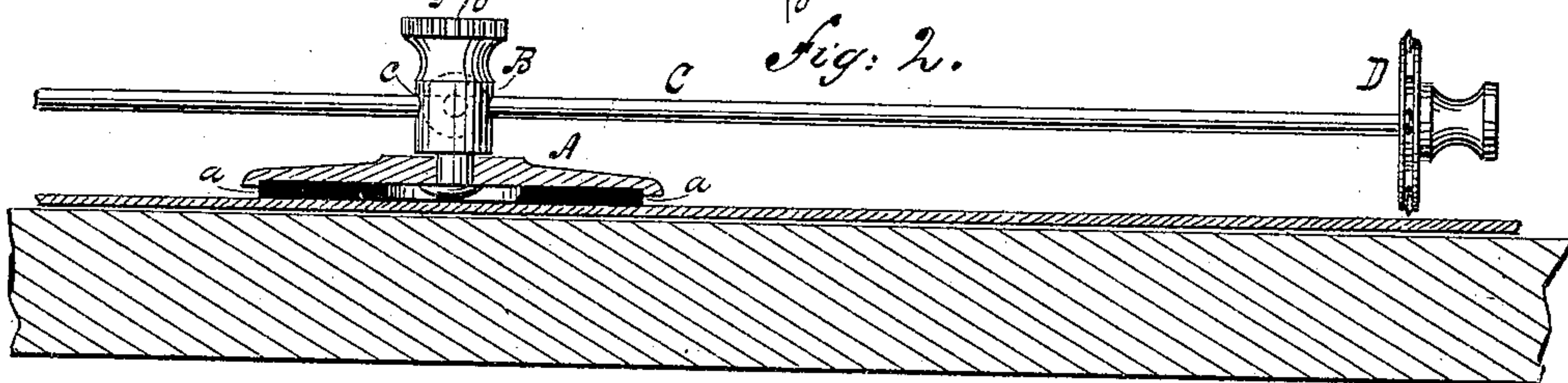
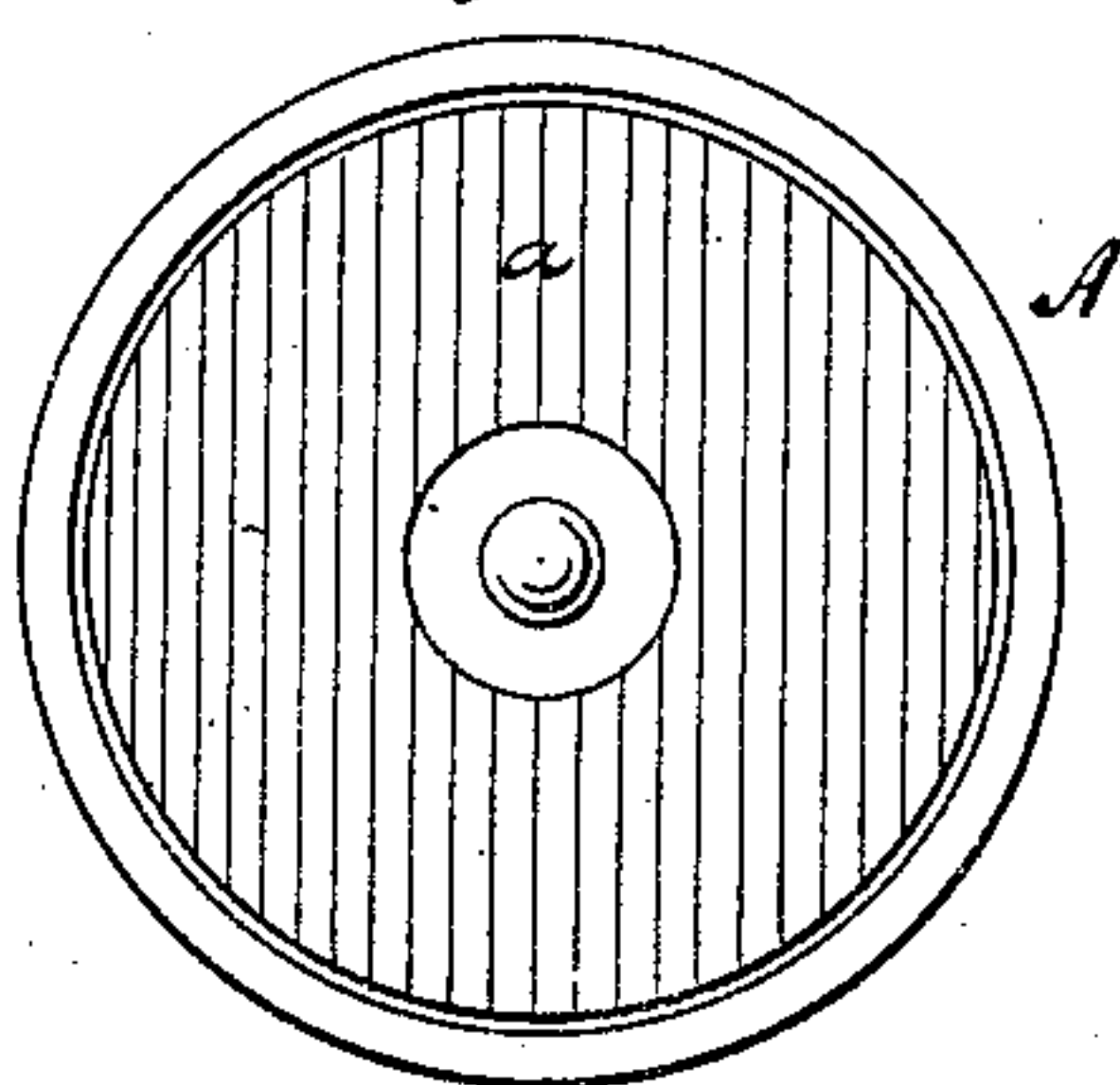


Fig: 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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GLASS-CUTTER.

SPECIFICATION forming part of Letters Patent No. 396,600, dated January 22, 1889.

Application filed August 27, 1888. Serial No. 283,836. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER McL. ROWLAND, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Glass-Cutters, of which I declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 This invention relates to improvements in instruments for cutting window-glass, &c.; and the invention consists of a rotary glass-cutting instrument constructed in the manner and for the purpose herein particularly
15 described, shown, and claimed.

In the accompanying sheet of drawings, Figure 1 is a plan view of the instrument as it appears when in use; Fig. 2, a side view of the same, partly in section in the plane *x*
20 *x*, Fig. 1; Fig. 3, a face view of the cutter-head; Fig. 4, a section thereof in the plane *y* *y*, Fig. 3; Fig. 5, a section in the plane *r* *r*, Fig. 4; Fig. 6, an under side view of the base.

Similar letters of reference indicate like
25 parts in the several views.

The purpose of this invention is to improve the means for cutting window-glass, &c., along curved lines without the use of a pattern to guide the cutter. Rotary glass-cutters have
30 heretofore been made, so I do not claim to be the inventor of such a cutter in the broadest sense, but merely of the particular construction of cutter herein described.

Upon a suitable base, A, is erected a binding-post, B. This post is permanently secured to the base by having its lower end passed through a hole in the base and then upset, so that the post is free to turn through a complete revolution in either direction. To
40 the under side of the base is cemented a flat rubber annulus, *a*, to keep the instrument from slipping when in use. The upper end of the post B is formed into a slightly-concave top, *b*, and through the post in a horizontal
45 direction is cut a round hole, *c*, into which projects a set-screw, *d*, which is preferably somewhat inclined upward from the binding-post, so that the base may not interfere with the turning of the set-screw by the fingers;

and, besides, a longer thread is obtained in the
50 side of the binding-post because of the inclination of the set-screw, and its holding strength is thereby increased. Through the hole *c* in the binding-post passes a rod, C, one end of which is provided with a shoulder, *e*,
55 and a screw-cap, *f*, and to this end of the rod is secured the cutter-head D. The head D consists of a disk cut from sheet-brass or other material, of suitable thickness, with a series of steel cutters fixed at intervals along
60 its circumference. After the disk has been cut out by a die it is placed in a lathe and a groove, *g*, of proper width and depth is turned in its edge. The cutters *h* are small knife-edged steel disks. They are turned and hard-
65 ened and then pivoted between the sides of the groove *g*, as shown in Figs. 3, 4, and 5. Through the center of the cutter-head is made a hole, *i*, of the proper size to receive the end of the rod C, and in the face of the cutter-
70 head are stamped figures by which the steel cutters are designated. The cutter-head is clamped between the shoulder *e* of the rod C and the screw-cap *f* on the end of the rod.

When it is desired to use the instrument
75 above described, the rod C is fixed by means of the set-screw *d* in the proper position to allow the cutter-head to describe the curve along which the glass is to be cut, the base A is held against the glass by a finger applied
80 to the top of the binding-post B, and the cutter-head is moved across the glass with one of the steel cutters pressed firmly against the surface of the glass. As soon as one of the
85 steel cutters becomes worn out the cutter-head or the rod C may be turned and another cutter brought into use till the supply is exhausted. Then the old head can be replaced by a new one, when the instrument will be as
90 serviceable as it was at the beginning. The figures on the face of the cutter-head enable the operator to readily distinguish between those of the steel cutters that are worn out and those that are still useful.

Having now described my invention, what I
95 claim as new, and desire to secure by Letters Patent, is—

1. In an instrument for cutting glass, an ad-

justable head to which is pivoted a series of cutters, *h*, as and for the purpose described.

2. An instrument for cutting glass, consisting of two or more revolving steel cutters pivoted to an adjustable head fixed to an arm which revolves about a base, as and for the purpose described.

3. In combination, in an instrument for cutting glass, a removable and adjustable head with two or more cutters, *h*, pivoted thereto, and a swivel whereby the cutters may move in an arc, as and for the purpose described.

4. In a glass-cutting instrument, the combination of the base A, binding-post B, ~~rod C~~ and adjustable cutter-head D, provided with a series of steel cutters, *h*, as and for the purpose described.

ALEX. McL. ROWLAND.

In presence of—

D. A. CARPENTER,

C. C. FIELD.