(No Model.)

E. O. BOYLE.

GLASS CUTTING GAGE.

No. 336,834. Patented Feb. 23, 1886.

Fig. 1.

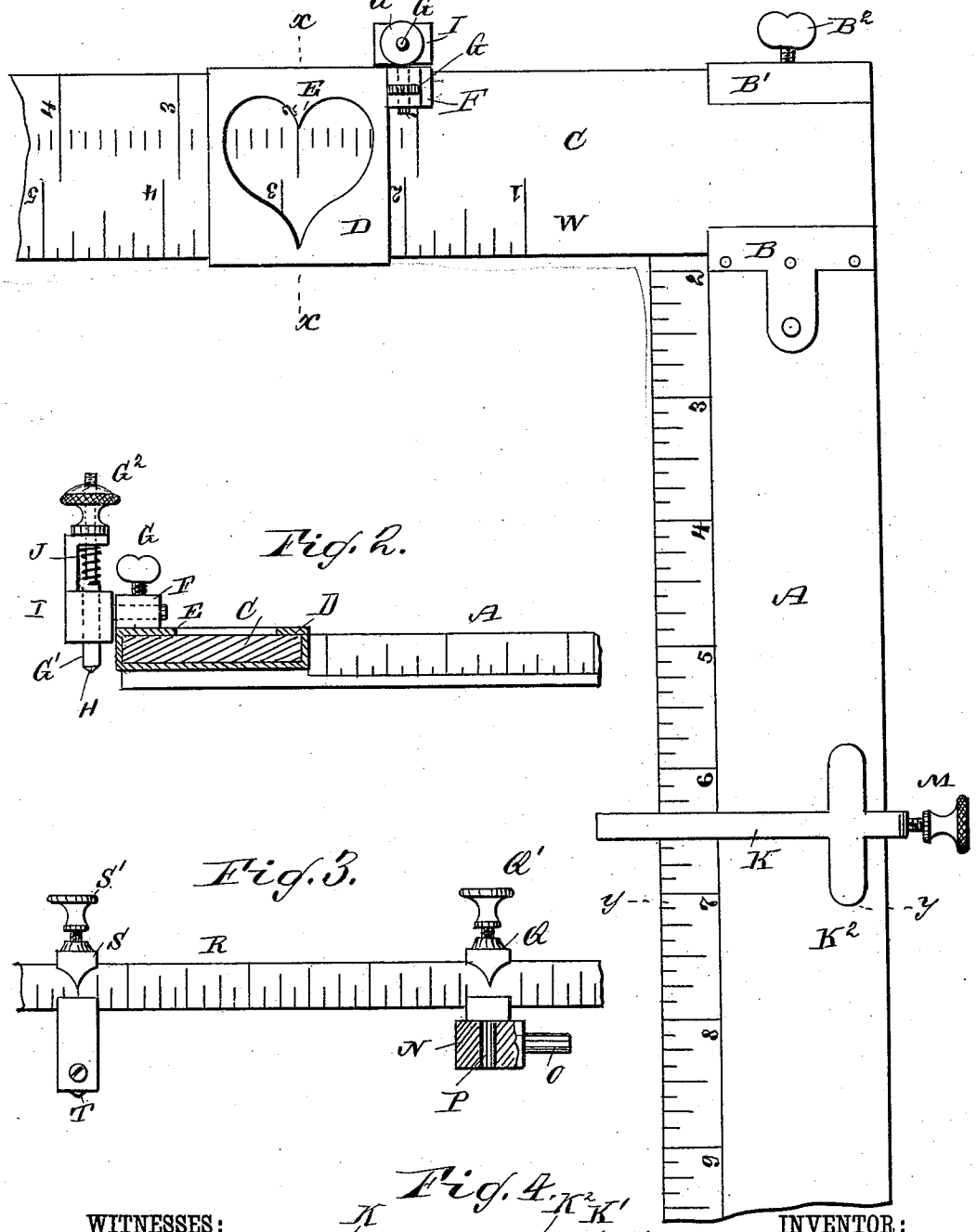
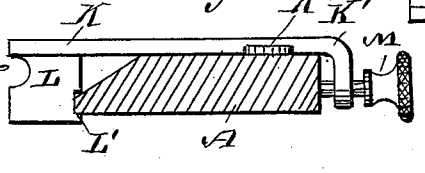


Fig. 2.

Fig. 3.

Fig. 4.



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EUGENE O. BOYLE, OF CHAMPLAIN, NEW YORK.

GLASS-CUTTING GAGE.

SPECIFICATION forming part of Letters Patent No. 336,834, dated February 23, 1886.

Application filed August 31, 1885. Serial No. 175,809. (No model.)

To all whom it may concern:

Be it known that I, EUGENE O. BOYLE, of Champlain, in the county of Clinton and State of New York, have invented a new and Improved Glass-Cutting Gage, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved gage for cutting panes of glass at true angles or on curved lines exactly, easily, and rapidly.

The invention consists in the construction of parts and details and combinations of the same, as will be fully set forth and described hereinafter, and pointed out in the claims.

Reference is to be had to the accompanying drawings forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved glass-cutting gage, parts being broken out. Fig. 2 is a cross-sectional view of the same on the line *x x*, Fig. 1. Fig. 3 is a side view of the sweep-carrier, parts being broken and others in section. Fig. 4 is a cross-sectional view on the line *y y*, Fig. 1, showing the guard.

The main part A of the gage is provided at one end with a recess, at which clamping-clips B B′ are held on the main part, one of said clips having a binding-screw, B^2, for locking in place the tongue C, which is passed through the recess in the end of main part A. A slide, D, having a recess in its top, is mounted on the tongue C, and in the edge of the recess a pointer, E, is formed, which indicates the position of the slide D on the scale on the outer edge of the tongue C. From the upper surface of the slide D a block, F, projects, which has an aperture extending from the inner to the outer end, and in the top of the said block F a binding-screw, G, is held, for locking a pin projecting from the block I in the aperture of the block F.

The diamond H, for cutting the glass, is held on the lower end of a rod, G′, passed through a block, I, and an arm projecting upward from said block I, which rod G′ has a collar above the block, between which collar and the top of the arm a spiral spring, J, surrounds the rod G′ and presses the same downward. A knob or button, G^2, is secured to the upper end of the rod G′, and rests upon the upper end of the arm, and is used for adjusting the rod to give the diamond a greater or less pressure.

The guard K consists of a metal strip having one end, K′, bent down at right angles, and having a downwardly-projecting lug, L, on the other end, which lug has a notch, L′, on its inner edge, into which lug the inner edge of the main part or rule A passes, as shown in Fig. 4. The guard K also has a cross-plate, K^2, to prevent its turning over on the rule, and in the bent end of the guard K a binding-screw, M, is placed, for the purpose of locking the guard in place on the rule A. A block, N, is provided with a pin, O, which can be passed into an aperture in the block F on the slide D, and the block N also has an aperture, into which a pin, P, can be passed, which projects downward from a clamp, Q, adapted to receive the sweep R, which can be held in place in the clamp Q by the screw Q′ in the top of the clamp. On the sweep R a clamp, S, is held by binding-screw S′ in the top of the clamp S, and in the lower end of the clamp S the diamond T is held. The rule A is subdivided or provided with a scale, in the usual manner, along its inner edge. The scale W on the inner edge of the tongue C begins one inch from the inner edge of rule A. The subdivisions on the outer edge of the tongue C are spaced from the center of the block F, which corresponds to the point of the diamond H. The tongue C can be adjusted very easily on the rule A, to project more or less from the inner edge of the said rule A, by screw M.

The operation is as follows: The guard K is locked in place on the rule A, for the purpose of facilitating the cutting of large quantities of glass of the same size. To cut along the edge of the tongue C, the slide D is moved along the said tongue, the spring J permitting the diamond H to give more or less when there is any unevenness in the glass. To cut the glass on curved or circular lines, the block I is removed from the block F and the pin P on the block N is passed into the aperture in the block F, the sweep is adjusted in the proper position on the clamp Q and the sweep is swung to describe the desired circle. The

center of the glass is located by the pointer E.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a glass-cutting gage, the combination, with the rule A, of the tongue C, held by a binding-screw on the end of the rule A, substantially as herein shown and described.

2. In a glass-cutting gage, the combination, with the tongue C, of the slide D, the block F on the same, and the diamond-holder held on the said block, substantially as herein shown and described.

3. In a glass-cutting gage, the combination, with the tongue C, of the slide D, the block F on the same, the block I, having a pin passed into an aperture in the block F, and a diamond-holding rod in the block I, substantially as herein shown and described.

4. In a glass-cutting gage, the combination, with the slide D, of the block F on the same, the block I, having a pin, the screw G on the block F, the rod G′ in the block I, the spring J, the screw-head G^2, and the diamond H, held in the lower end of the rod G′, substantially as herein shown and described.

5. In a glass-cutting gage, the combination, with the sweep R, of the clamp Q, having the pin P, and the block N, having the pin O, substantially as herein shown and described.

6. In a glass-cutting machine, the combination, with the sweep R, of the clamp Q, the block N, and the clamp S, in which the diamond T is held, substantially as herein shown and described.

7. In a glass-cutting machine, the combination, with the rule A, of the guard K, having the lug L, provided with a recess, L′, on one end, substantially as herein shown and described.

8. In a glass-cutting machine, the combination, with the rule A, of the guard K, the lug L on one end of the guard, and the screw M on the other end of the guard, substantially as herein shown and described.

9. In a glass-cutting machine, the combination, with the rule A, of the guard K, the lug L on one end of the guard, and the screw M on the other end of the guard, substantially as herein shown and described.

10. In a glass-cutting machine, a rule having a scale on its inner edge, which scale begins one inch from the inner edge of a rule at right angles to the first-mentioned rule, substantially as herein shown and described.

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Witnesses:
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