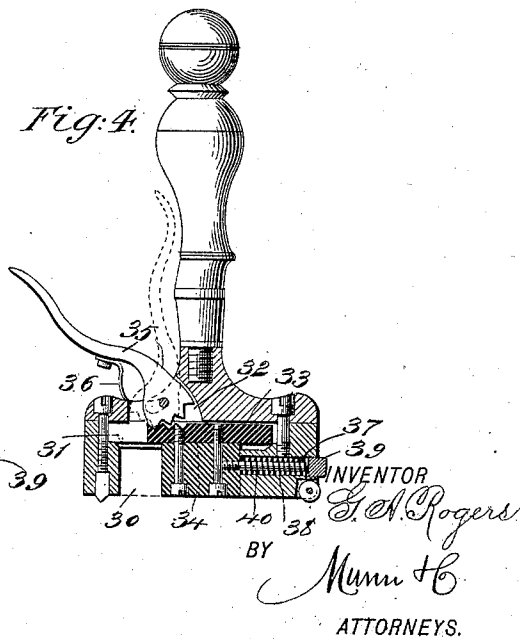
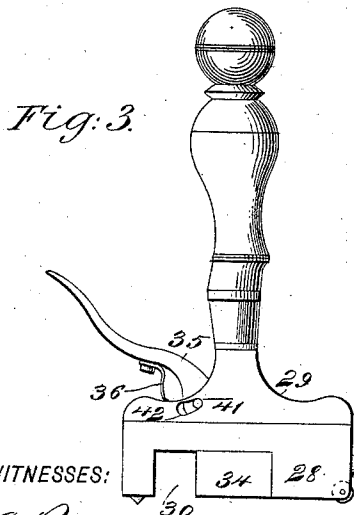
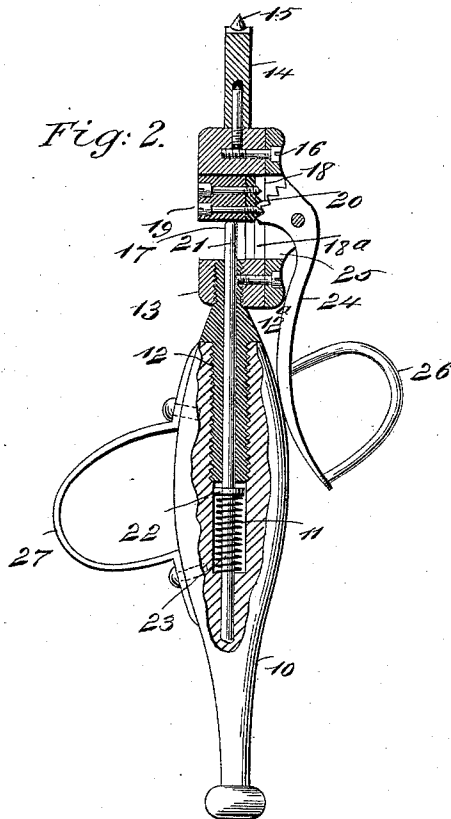
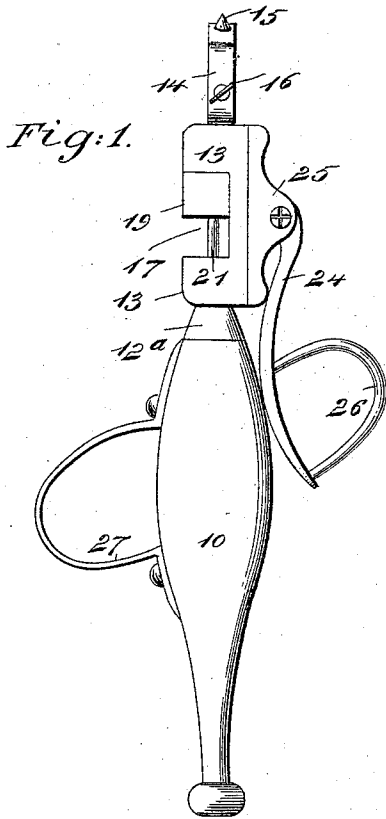


(No Model.)

G. A. ROGERS.
GLAZIER'S TOOL.

No. 535,222.

Patented Mar. 5, 1895.



WITNESSES:

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GLAZIER'S TOOL.

SPECIFICATION forming part of Letters Patent No. 535,222, dated March 5, 1895.

Application filed June 30, 1894. Serial No. 516,155. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. ROGERS, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Glaziers' Tools, of which the following is a full, clear, and exact description.

My invention relates to an improvement in glaziers' tools, and especially to glass breakers used in connection with a glazier's glass cutter, in place of or as a substitute for, the combed or notched or slotted glass breaker used for breaking off a strip or marginal portion of a sheet of glass in the line of cut made by the cutter, the attachment to the tool being so made that thick or thin glass may be fractured or broken from a pane or sheet with equal facility.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

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

Figure 1 is a side elevation of one form of a glazier's tool, illustrating the application of the invention thereto. Figs. 2 is a longitudinal section through the form of tool shown in Fig. 1. Fig. 3 is a side elevation of another form of the glazier's tool; and Fig. 4 is a vertical section through the body portion thereof.

In the form of the invention shown in Figs. 1 and 2, the handle 10 is made somewhat oblong, and is provided with an interior chamber 11, extending longitudinally thereof and made in two diameters. In the larger diameter of the chamber the shank 12 of a cap 12^a is preferably secured, which cap is shorter than the length of the said enlarged diameter of the chamber, as shown in Fig. 2, and the said cap is provided with an exteriorly threaded outer end, upon which the body 13 of the tool is secured; and upon this body a cutterhead 14 is pivoted, being provided with a diamond 15 and a set screw 16 through the medium of which a gage may be applied to the head.

The body 13 is provided in one of its longitudinal edges with a recess 17, extending

through from side to side, the said recess meeting a longitudinal opening 18 in the opposite edge of the body, the latter opening 18 being provided with a slide-way 18^a, in which slide-way a jaw 19 has longitudinal movement. This jaw is illustrated as being made in two sections, the inner section being thinner than the outer section and provided with an upper or outer rack surface 20, and the two sections are shown as connected by screws. This jaw 19, is adapted to slide to and from the end walls of the recess 17, said walls constituting the fixed jaws, especially the outer walls.

The sliding jaw is held normally in engagement with the outer end wall of the recess 17 on the fixed jaw of the body, through the medium of a push pin 21, engaging with the under face of the movable jaw, and the said pin extends downward through the cap, its extension and shank, and below the shank of the cap the pin is provided with a collar 22. A spring 23, is coiled around the pin, having bearing against its collar and against the bottom portion of the larger diameter of the chamber 11 in the handle, the pin continuing into the reduced section of the chamber, having sliding movement therein.

A lever 24, is fulcrumed upon the body, preferably in a slotted bearing block 25 attached to what may be termed the back of the body portion 13 of the tool. The head of this lever is provided with teeth adapted for engagement with the rack surface of the sliding jaw 19, while the shank of the lever is curved down upon the handle and terminates in a loop 26, through which the fingers are passed in the manipulation of the lever, a loop 27, being placed upon the opposite side of the handle, receiving the thumb of the hand.

When the lever is in its normal position the sliding jaw is against the fixed jaw of the body, but when the lever is carried outwardly the sliding jaw will be carried a corresponding distance inwardly, and in this manner the space between the sliding jaw and the fixed jaw may be regulated to accommodate glass of various thickness. The glass having been received between the two jaws the lever is forced downward and the strip or section of glass to be broken off is quickly and cleanly

severed by the manipulation of the tool in the ordinary way.

In Figs. 3 and 4 I have illustrated the application of the above principle to a cutter of different shape, in which the body portion 28 is attached to what may be termed a T-handle 29. The body is, as in the form shown in Figs. 1 and 2, provided with a recess 30, extending through from side to side, and an opening 31 communicating with the recess and likewise with an opening 32 in the horizontal section of the handle. A slide-way is formed in the opening 31 to receive the upper section 33 of a sliding jaw 34, the latter traveling in the recess 30; and the upper section 33 of the jaw, where it is located beneath the opening 32, in the handle, is provided with a rack surface to receive the toothed head of a lever 35, held in such position as to normally force the jaw 34 away from the end constituting the fixed jaw of the tool, as shown in Fig. 4, this being accomplished by a spring 36. The lever is readily grasped simultaneously with grasping the handle, and when drawn up to the handle will force the sliding jaw in the direction of the fixed jaw of the body and against any material placed between the two. The sliding jaw is likewise held in its normal position, shown in Fig. 4, by a pin 37 attached to it and held to slide in a horizontal chamber 38 made in the body and inclosed by a plug 39, the said pin being encircled by a spring 40, which is placed under the extension when the sliding jaw is carried to clamping position. The lever 35 is provided with an adjustable fulcrum, the pivot pin 41 being mounted to slide in a slot 42, produced in the handle section of the tool, as is clearly shown in Fig. 3.

It will be understood that the glass breaker may be a tool independent of a glazier's diamond.

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

1. A glass breaker, comprising a handle, a body portion to which the handle is secured, said body portion being recessed, a sliding

and spring pressed jaw in the said recess and having a rack surface, and a lever pivoted to the body and provided with teeth engaging the rack surface of the jaw, said lever being extended along the said handle, substantially as described.

2. A glass breaker, comprising a hollow handle, a spring pressed pin in the handle, a recessed body portion carried by the handle, a jaw fitted to slide in the recess of the body and engaged by the pin of the handle, and a lever pivoted to the body and engaging the sliding jaw, substantially as described.

3. In a glazier's cutting tool, an attached glass breaker, the same consisting of a casing provided with a fixed jaw, a spring-controlled jaw having sliding movement in the casing to and from the fixed jaw, the sliding jaw being provided with teeth, and a lever having a sliding fulcrum, and a toothed surface engaging with the corresponding surface of the sliding jaw, whereby the latter is manipulated, as and for the purpose specified.

4. A glass breaker, comprising a hollow handle, a spring pressed pin in said handle, a recessed body portion carried by the handle, a jaw fitted to slide in the recess of the body and provided with a rack surface, the said jaw being engaged by the pin of the handle, and a lever pivoted to the body and having teeth engaging the rack surface of the jaw, the free end of the lever extending down along the handle, substantially as herein shown and described.

5. A glazier's tool, comprising a hollow handle, a spring pressed pin in the handle, a recessed body secured to the handle, a jaw fitted to slide in the recess of the body and having a rack surface, a lever pivoted to the body and provided with teeth engaging the rack surface of the jaw, and a cutter carried by the body portion, substantially as herein shown and described.

GEORGE A. ROGERS.

Witnesses:

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