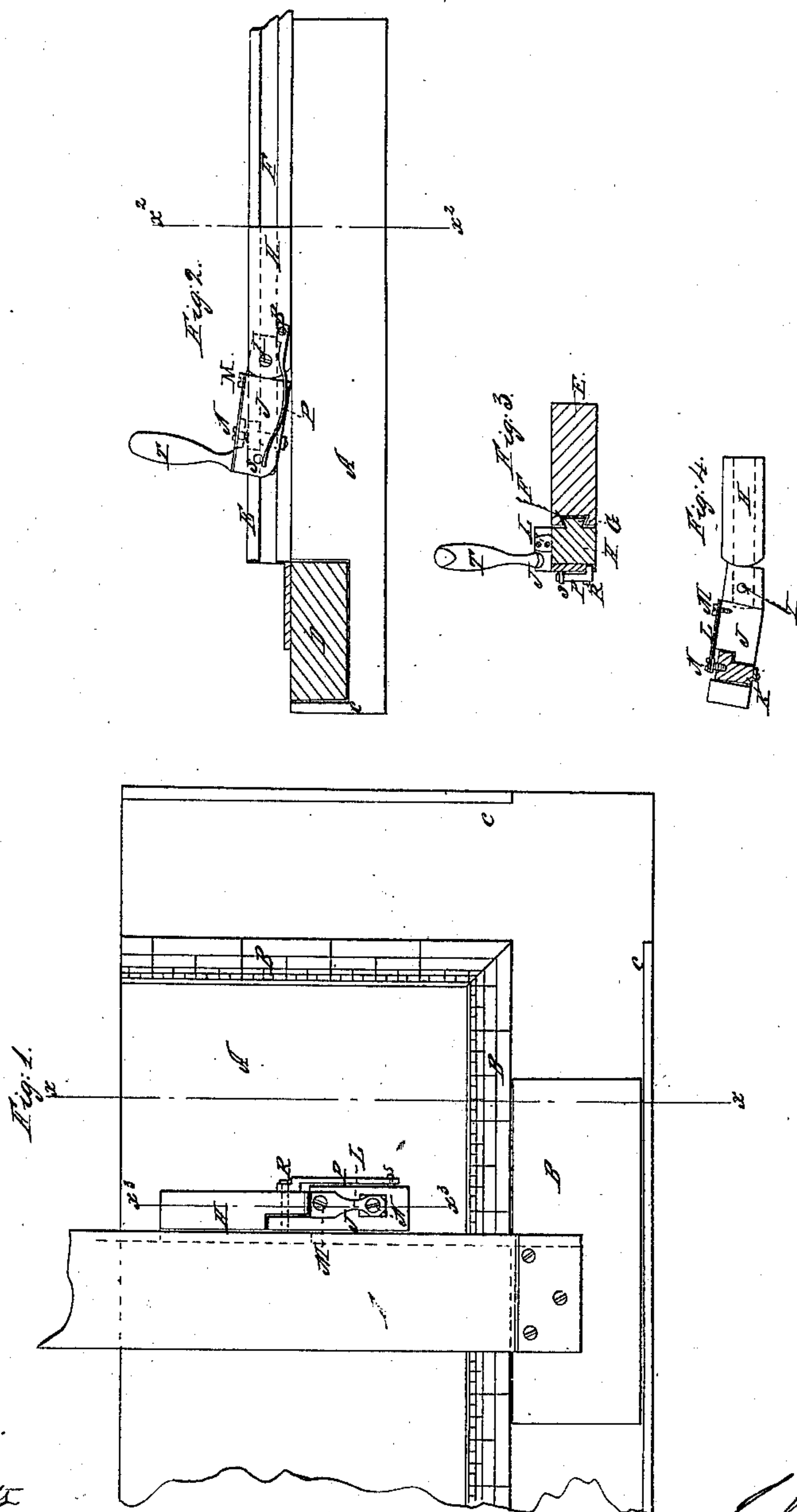


J. Dickinson,
Cutting Glass.

N^o 33,380.

Patented Oct. 1, 1861.



Witnesses:
B. W. Eichholtz
Charles L. Barritt

Inventor.
John Dickinson

UNITED STATES PATENT OFFICE.

JOHN DICKINSON, OF BROOKLYN, NEW YORK.

GROOVED RULE AND SELF-ADJUSTING DIAMOND FOR CUTTING GLASS.

Specification forming part of Letters Patent No. 33,380, dated October 1, 1861.

To all whom it may concern:

Be it known that I, JOHN DICKINSON, of Brooklyn, Kings county, State of New York, have invented certain new and useful Improvements in Operating Glaziers' Diamonds, which I have designated as "Dickinson's Grooved Rule and Self-Adjustable Diamond for Cutting Glass and other Substances;" and I do hereby declare the following to be a full description of the same.

The nature of my invention consists in forming a grooved rule having a T or cross attached to its head, so as to work in guideways formed in the edges of a table-board, and thus be moved with facility in parallel lines for the operation of the diamond, and, secondly, in setting the diamond in a self-adjustable spring-slider, so as to work in the groove of the rule backward and forward over the surface of the glass to cut it, with the uniform pressure of the spring holding the diamond down, and thus enable any boy or other employé to operate the diamond in cutting plate-glass with as much accuracy and ease as can under other circumstances be attained by the most expert glass-cutter; but to describe my invention more particularly I will refer to the accompanying drawings, forming a part of this specification, the same letters of reference wherever they occur referring to like parts.

Figure 1 is a plan view of the rule and table. Fig. 2 is a transverse cut section of the table through the line $x x$, Fig. 1, showing a side view of the grooved rule and self-adjustable diamond. Fig. 3 is a cut section of the grooved rule through the line $x^2 x^2$, Fig. 2. Fig. 4 is a longitudinal cut section of the self-adjustable diamond through the line $x^3 x^3$, Fig. 1.

Letter A is the table, having on its face graduated scales of inches B and at its margins countersunk guideways c. In the guideway is adjusted the head D of a T-rule E, having cut in its edge a dovetail groove F for the reception of a male dovetail G, formed on

the side of a metal slider H. Attached to the end of the slider by a working-joint I is the diamond stock or holder J. In the front end of it is inserted through a vertical square opening the diamond secured in the lower end of a square stem K. To make the action of the diamond elastic and self-adjustable, a spring L is attached to the back end of the stock J by a screw M, and at its front end rests upon the head of an adjustable set-screw N, inserted in the head of the diamond-stem, so that as the screw N is raised or lowered more or less tension of the spring is obtained to bear upon the surface of the glass to cut it. To prevent the diamond from pressing beyond a fixed pressure, a shoulder is formed on the head of the stem K, which, resting on a corresponding ledge formed in the side of the aperture through which it works, keeps the diamond-point always at a fixed point, below which it cannot go, however great may be the force applied. To lift the diamond from the surface of the glass in its back or return motion, a spring P is secured at its back end by a screw R to the slider H and having its point inserted under a pin s in the front end of the stock J, so that at all times when the diamond is not in use its point will be lifted from the surface of the glass or table, as the case may be. Letter T is a stem for operating the instrument.

Having now described my invention, I will proceed to set forth what I claim and desire to secure by Letters Patent:

1. The combination of the grooved T-rule with the table having marginal guideways in it, for the purpose substantially as set forth.

2. The combination of the metal slider H with the self-adjustable diamond-stock J and grooved rule E, made and operating substantially as described, and for the purposes hereinbefore set forth.

JOHN DICKINSON.

Witnesses:

B. W. EICHHOLTZ,
CHARLES L. BARRITT.