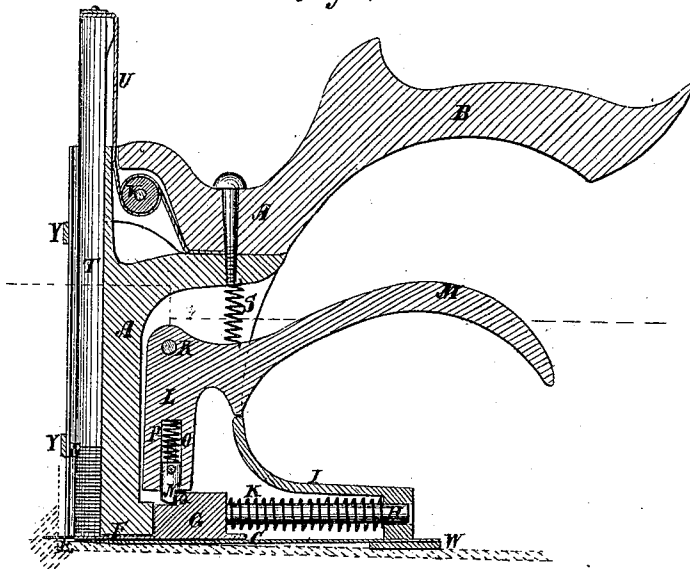


A. WOODWORTH & E. W. WARREN.  
TOOL FOR DRIVING GLAZIERS' POINTS.

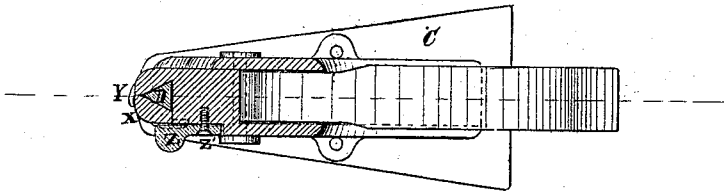
No. 104,915.

Patented June 28, 1870

*Fig. 1.*



*Fig. 2.*



Witnesses:

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PER

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# United States Patent Office.

ALFRED WOODWORTH AND EDWIN W. WARREN, OF CAMBRIDGE, NEW YORK.

Letters Patent No. 104,915, dated June 23, 1870.

## IMPROVEMENT IN TOOL FOR DRIVING GLAZIERS' POINTS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, ALFRED WOODWORTH and EDWIN W. WARREN, of Cambridge, in the county of Washington and State of New York, have invented a new and improved Tool for Driving Glaziers' Points; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in machines or tools for driving glaziers' points, and consists in a hand-tool having a vertical receptacle for the points, and a spring driver, arranged to strike the lowest point in the receptacle, and force it out through a slot thereat, the said spring driver being provided with a retracting pawl, which trips the driver and re-engages with it self-actingly, all as hereinafter more fully specified.

Figure 1 is a sectional elevation of my improved tool, and

Figure 2 is a horizontal section of the same.

A is the stock,

B, the handle, and

C, the base of the tool, preferably made of metal, or it may be partly of metal and partly of wood, and either in parts attached together, or all cast or otherwise formed in one piece, as preferred.

D is a vertical triangular chamber for the points, at the front of the bottom of which is a horizontal slot, E, wide enough to allow one point to be forced out, and behind the chamber, at this point, is a thin driver, F, preferably of steel, attached to a block, G, having a long rod, H, extending rearward in an extension, I, of the stock, for the application of a strong spiral spring, K, for driving the driver F against the points.

L is a pawl for forcing the block G back against the spring K.

It has a handle, M, arranged under the handle B, so as to be taken conveniently in hand, while holding the tool to raise it and force the spring back.

The lower end of the pawl L carries a spring catching and tripping-pin N in a socket, O, in which is a coiled spring, P, which presses the pin down upon the block G.

This block has a shoulder, Q, in front of which the

spring catch falls when the handle M is pressed down, and on which it acts to force the drum back when the handle M is raised.

The raising of the handle swings the pawl on the pivot R, so as to raise the catch-pin above the shoulder Q when the driver has been forced back far enough, and the spring K then throws the driver forward against the lowest point in the chamber D, with sufficient force to drive it into the sash.

The pawl L is forced back again by a spring, S, bearing against the top of it, and, as soon as the lower end comes forward again, the catch N drops in front of the shoulder Q, ready for the next operation.

The wall X of the chamber is made detachable, for supplying the points more readily, the said wall being taken off for the purpose. It is held in place by the lugs Y on the other wall, and the button Z, pivoted to the side of the case by the screw Z'.

T is a follower, placed in the chamber above the points to force them down, and it is operated by an elastic cord, U, wound on a small roller, V, in a recess in the upper part of the tool-stock.

The front end of the base-plate C is made thinner than the other, so that the points will be driven close down upon the glass when the tool is set thereon. The rear end of the base may also be raised by another plate, W, for the same purposes.

By changing the shape of the chamber to adapt it to other articles, and also changing the form of the driver, nails, brads, pins, or other similar things may be driven by the same apparatus.

Having thus described our invention,

We claim as new and desire to secure by Letters Patent—

The combination on stock A, provided with a chamber, D, of a spring-actuated driver, F G, retracting-pawl L M, and spring-actuated catch-pin N, all arranged for operation substantially as specified.

The above specification of our invention signed by us this 1st day of April, 1870.

ALFRED WOODWORTH.  
EDWIN W. WARREN.

Witnesses:

HENRY NOBLE,  
A. H. COMSTOCK.