G. W. HUBBARD.
Glazier's Point.

No. 230,631. Patented Aug. 3, 1880.

Fig. 1.

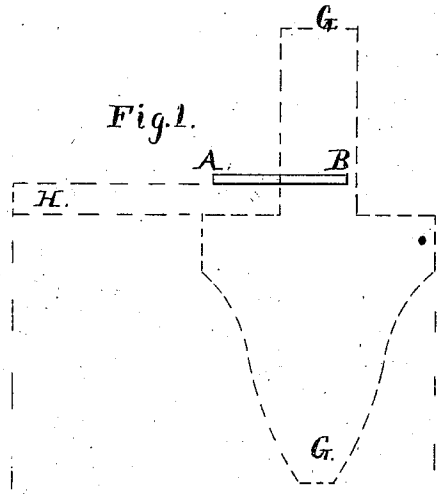
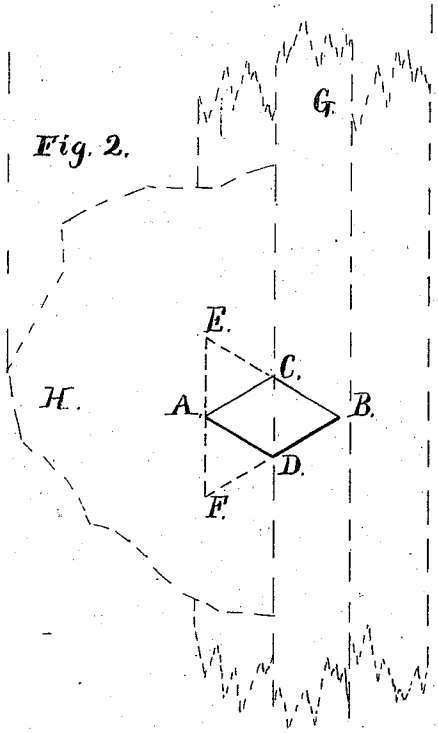


Fig. 2.



Witnesses:
Horace P. McClary
Fred Sargent.

Inventor:
Geo. W. Hubbard.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE W. HUBBARD, OF WINDSOR, VERMONT.

GLAZIER'S POINT.

SPECIFICATION forming part of Letters Patent No. 230,631, dated August 3, 1880.

Application filed November 6, 1879.

To all whom it may concern:

Be it known that I, GEO. W. HUBBARD, of Windsor, in the county of Windsor and State of Vermont, have invented a new and useful Improvement in Glaziers' Points, of which the following is a specification.

The invention relates to sheet-metal points used by glaziers for securing glasses in window-sash.

Heretofore such points have been made of a triangular shape. The triangular shape is objectionable, for the reason that a considerable portion of the material in such points is superfluous and unnecessary after the point is properly set in the sash. The triangular shape is also objectionable, for reason of the liability of the outer angles, from inaccuracy in driving, catching upon the knife used in putying, and being thus thrown farther outward upon the glass. It is also objectionable, for the reason that its manufacture is necessarily comparatively slow and imperfect or difficult, each successive point requiring the strip from which it is cut to be turned over or presented at a different angle to the cutters from that of the preceding one; also, because any inaccuracy in feeding the strip forward between the cutters results in the making of a point having either an imperfect angle or less than its proper height; also, because the portion projecting upon the glass is less perfectly adapted for the accurate insertion of the point into the sash by a machine constructed specially for such insertion.

The object of my invention is to provide glaziers' points which shall require a less amount of material in their manufacture and shall be equally efficient after insertion into the sash as those heretofore used, and which also, after insertion into the sash, shall be less liable to catch upon the knife used in puttying, and thus thrown outward upon the glass.

The points can be cut from a strip or series of strips of metal fed forward between the cutters at a uniform angle and without turning over, and the angles or points are uniformly sharp and perfect, whatever the variations in the feeding forward of the strips to the cutters may be. The point is also more perfectly adapted in its shape for accurate insertion into the sash by a machine constructed for such insertion.

The invention consists in the peculiar shape or form of the points.

In the accompanying drawings, in which similar letters of reference indicate like parts, A B, Figure 1, is a side elevation, and A C B D, Fig. 2, a plan view of my invention. Each figure also shows, in dotted lines, a portion, G G, of ordinary window-sash, into which the point is shown as inserted.

H represents the glass held in place by the point A B.

Glaziers' points have heretofore been made approximately of the shape E B F, Fig. 2.

It is evident that my improved point, while dispensing with the portions A C E and A D F, Fig. 2, retains an equal bearing in the wood of the sash G G and projection upon the glass H.

What I claim is—

As a new article of manufacture, glaziers' points of a lozenge or diamond shape, as set forth.

GEO. W. HUBBARD.

Witnesses:

HORACE P. MCCLARY,

FRED. SARGENT.