

(No Model.)

2 Sheets—Sheet 1.

S. J. SHIMER.
TEMPLER FOR CUTTER HEADS.

No. 573,304.

Patented Dec. 15, 1896.

Fig. 1.

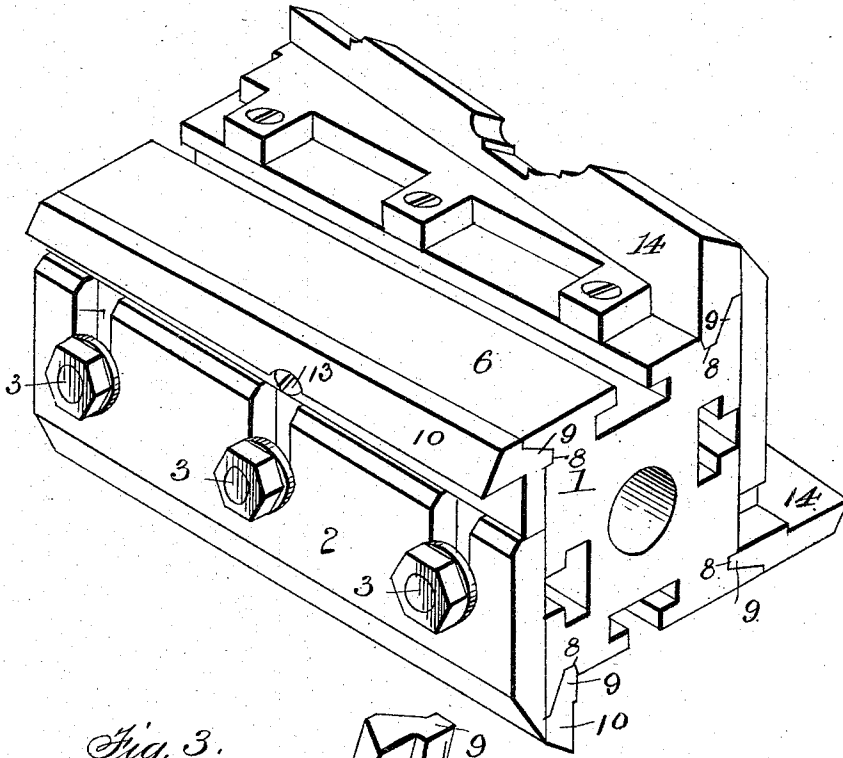
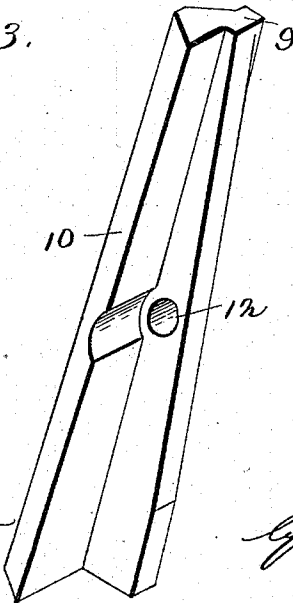


Fig. 3.



Witnesses:
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Inventor:
Samuel J. Shimer
By Louis Digger & Co
Attorneys.

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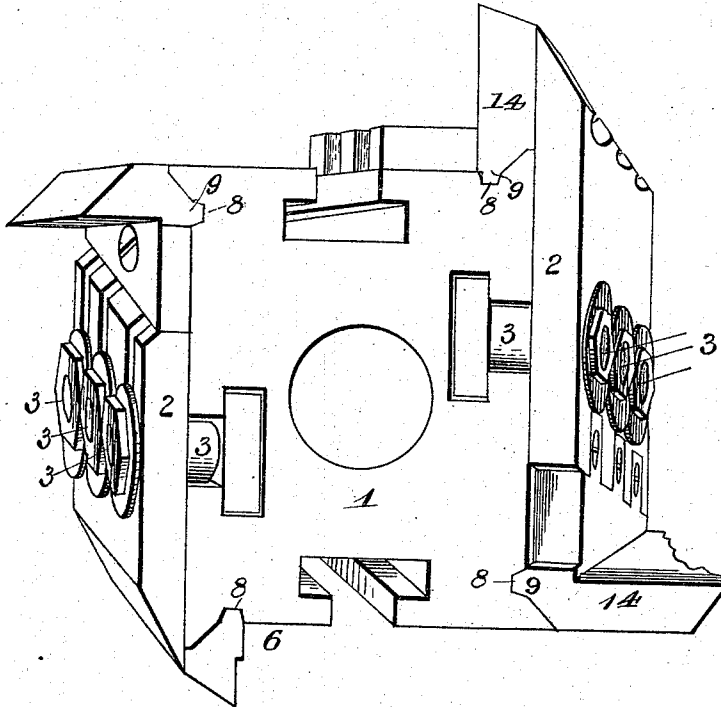


Fig. 2.

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UNITED STATES PATENT OFFICE.

SAMUEL J. SHIMER, OF MILTON, PENNSYLVANIA.

TEMPLER FOR CUTTER-HEADS.

SPECIFICATION forming part of Letters Patent No. 573,304, dated December 15, 1896.

Application filed August 4, 1896. Serial No. 601,655. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL J. SHIMER, a citizen of the United States, and a resident of Milton, in the county of Northumberland and State of Pennsylvania, have invented certain new and useful Improvements in Templates for Cutter-Heads; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to templates for truing up the convex edges of planer-knives used in connection with trapezoidal cutter-heads, such as are shown in the Letters Patent granted to me March 3, 1896, No. 555,742. In said patent there is shown a cutter-head having four trapezoidal sides alternately arranged and alternately inclined inward and outward with respect to the axial line of the head, in combination with blades formed with elliptical cutting edges so proportioned as to make the entire cutting edge of each knife lie within the surface of a cylinder of rotation, whereby they will cut chips diagonally in opposite directions from side to side across a plane board. In manufacturing such knives it requires great skill and calculation to so fashion the elliptical cutting edges thereof that they shall have the proper curvature with respect to the trapezoidal head to produce a true cut, and in practice it frequently happens that owing to long usage or other causes the cutting edges will wear unequally, rendering it necessary to employ a skilled workman to restore the cutting edge to the proper contour.

The object of the present invention is to provide a cutter-head of the above character with a removable templet, having a hardened elliptical face so proportioned as to lie within the surface of a cylinder of rotation and located in front of the cutting edge of the knife, thereby forming a guide for truing up the cutting edge.

The invention consists in the novel construction and combination of parts herein-after fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a trapezoidal cutter-

head provided with a removable templet or guide constructed in accordance with my invention. Fig. 2 is an end view of the same. Fig. 3 is a perspective view of the templet removed from the head.

In the said drawings the reference-numeral 1 designates a trapezoidal cutter-head provided with a knife 2, secured thereto by bolts 3, as usual.

The numeral 4 designates a knife for cutting a plane surface, and 5 the knife-seat, which is beveled from end to end at 6, and the head in front of these beveled sides is formed with a longitudinal groove 8, in which is seated a rib 9 on the under side of the templet 10. This templet has its face convexed on the line of the cylinder of rotation after the diagonally-inclined side of the planer-head, so that the knife-edge will be correspondingly convexed, whereby it will make a perfectly true cut. At or near its center the templet is provided with a bolt-hole 12 to receive a screw-bolt 13, which engages with a registering screw-threaded hole to hold the templet in place on the head.

The numeral 14 designates the templet for use in connection with knives for cutting molded surfaces.

I prefer to make the templet of iron or mild steel, so that its surface may be case-hardened.

When the templet is secured to the cutter-head, the knife-edge may be trued up by means of a file.

Having thus fully described my invention, what I claim is—

1. A templet or guide adapted to be removably secured to a trapezoidal cutter-head for determining the true cutting edge of a blade or knife secured to said head, the face of which templet takes the convexity of a cylinder of rotation after the diagonally-inclined side of the cutter-head and provided on its inner side with a rib adapted to seat in a corresponding groove in the cutter-head, substantially as described.

2. The combination with a rotatable cutter-head having trapezoidal or oppositely-inclined sides, provided with knife-seats beveled from end to end, and the head in front of said beveled seats provided with a longitudinal groove, of the templet or guide hav-

ing a rib on its under side seated in one of
said grooves, and formed with a hardened
elliptical face which takes the convexity of a
cylinder of rotation after the diagonally-in-
5 clined side of the head, and the blade or
blades secured to said sides of the cutter-
head, substantially as described.

In testimony that I claim the foregoing as
my own I have hereunto affixed my signature
in presence of two witnesses.

SAMUEL J. SHIMER.

Witnesses:

JOHN A. BECK,
C. F. BALLIET.