

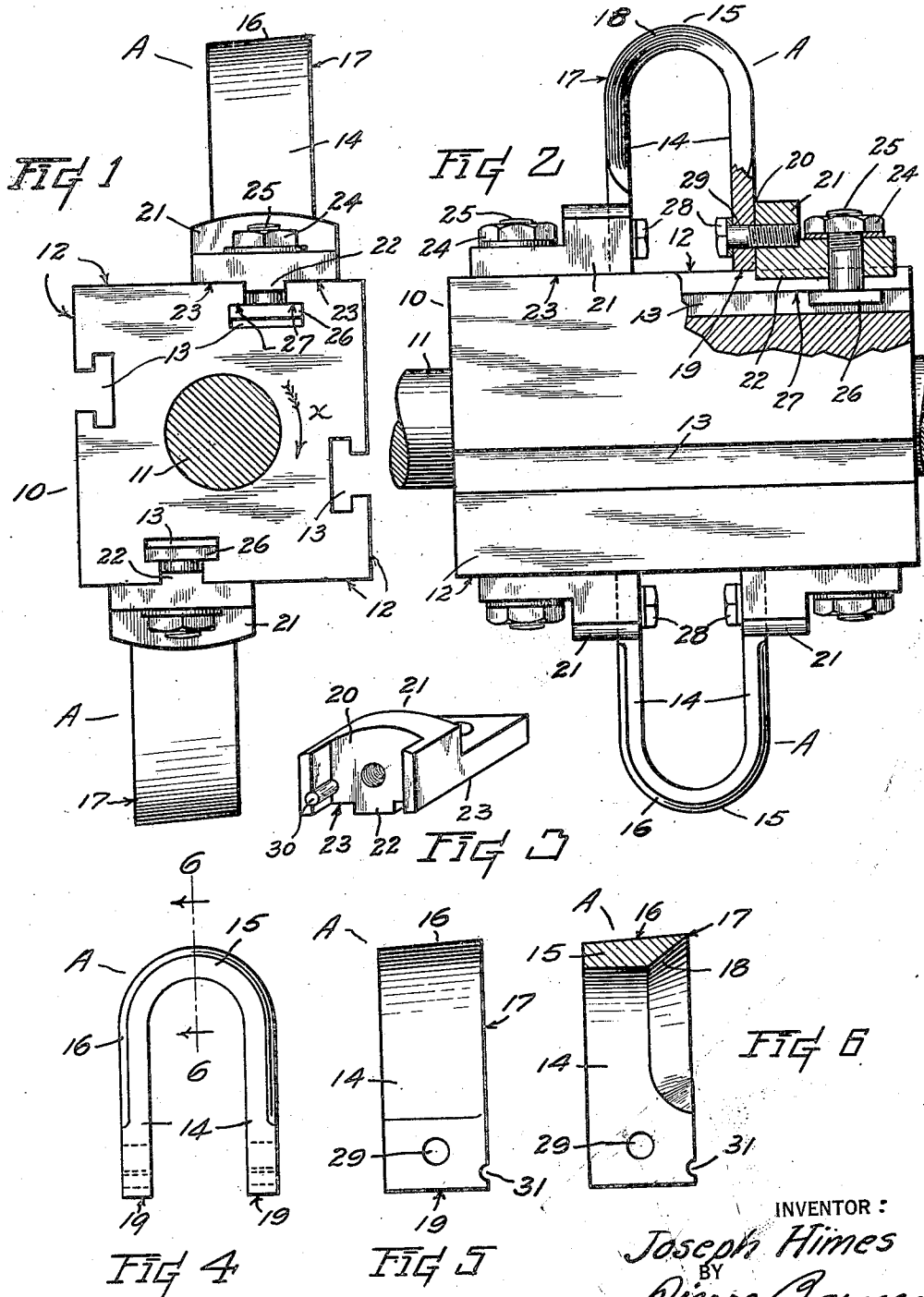
June 19, 1923.

1,459,398

J. HIMES

PLANER KNIFE

Filed April 1, 1922



INVENTOR :

Joseph Himes

BY

Pierre Barnes

ATTORNEY

Patented June 19, 1923.

1,459,398

UNITED STATES PATENT OFFICE.

JOSEPH HIMES, OF SEATTLE, WASHINGTON, ASSIGNOR TO HENRY DISSTON & SONS,
OF SEATTLE, WASHINGTON, A CORPORATION OF WASHINGTON.

PLANER KNIFE.

Application filed April 1, 1922. Serial No. 548,730.

To all whom it may concern:

Be it known that I, JOSEPH HIMES, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Planer Knives, of which the following is a specification.

This invention relates to planer knives which are used, more especially for cutting and dressing the grooves of gutters such as employed at the eaves of roofs or the like.

The primary object of the invention is the provision of an inexpensive planer knife of this character which is conveniently sharpened and kept in efficient operable condition.

A further object of the invention is to provide readily applied means for securing the improved knife to the planer cylinder.

With these and other objects in view the invention consists in the novel construction, adaptation and combination of parts hereinafter described and claimed.

In the accompanying drawings,—

Figure 1 is an end elevation of a planer cylinder with devices embodying my invention applied thereto. Fig. 2 is a view, partly in front elevation and partly in transverse section, of the same. Fig. 3 is a perspective view of one of the knife securing blocks shown detached. Fig. 4 is a rear elevation of a planer knife shown detached. Fig. 5 is a side elevation of Fig. 4. Fig. 6 is a sectional view through 6—6 of Fig. 4.

In said drawings, the reference numeral 10 represents a planer head, conventionally known as a "cylinder," which is mounted upon or formed integral with an arbor 11.

As illustrated the cylinder is of a substantially rectangular shape and is provided in its peripheral faces 12 with T-shaped slots 13 disposed longitudinally of the cylinder. The above described parts are or may be such as ordinarily used in wood planing machines and is rotated in the direction indicated by arrow X in Fig. 1.

According to the present invention I provide a cutter knife A of substantially U-shape in transverse section having parallel side legs 14 coextensive with an arcuate portion 15.

The outer surface of the arcuate portion 15 and upon the adjacent portions of the legs are beveled as at 16 from the front cutting edge 17 to afford clearance for the knife in the work. Interiorly of the knife the

same is ground or sharpened as at 18 from the cutting edge 17. The extremities 19 of the legs 14 are formed in a plane to seat against a face 12 of the cylinder.

The leg elements of a knife fit into recesses 20 respectively provided in blocks 21 at opposite sides of the knife.

Each of these blocks is provided at its underside with a tongue 22 between shoulders 23, the tongue being adapted to engage in a slot 13 of the cylinder and the shoulders to seat upon the latter at opposite sides of the slot.

The blocks 21 are each secured to the cylinder by means of a nut 24 taking on the threads of a bolt 25 extending through a block and having a head 26 which engages against the slot shoulders 27.

Screw bolts 28 extending through apertures 29 of the legs of a knife and engaging in threaded holes of the associated blocks serve to couple the latter to the knife. Supplementary to the bolts 28 I provide in each block a pin 30, see Fig. 3, to engage in a notch 31 of the respective knife leg.

The construction and operation of the invention will be understood from the foregoing.

What I claim, is—

1. The combination with a planer head, and a knife formed of a single piece which is formed to provide two substantially parallel side elements and a curved element connecting the outer ends of said side element, of a block disposed at each side of the knife, said blocks being respectively provided with recesses to receive the adjacent side elements of the knife, a tongue protruding from each block to engage in the head, means to secure the knife to the blocks, and means to secure the blocks to the head.

2. The combination with a planer head having a T-shaped slot, of a knife of a substantially U-shape, blocks bolted to the respective side elements of said knife, and bolts extending through said blocks into said slot for securing the blocks to the head.

3. The combination with a planer head, of a knife of a substantially U-shape in transverse section, a block disposed at each side of the knife, said blocks being respectively provided with recesses to receive the adjacent side elements of the knife, and means for detachably securing the blocks to the head.

4. The combination with a planer head
having a T-shaped slot therein, of a U-
shaped knife, blocks disposed upon the head
at opposite sides of said knife, said blocks
5 having tongues engaging in said slot, screw
bolts for detachably connecting the knife to
said blocks, headed screw bolts engaging in
the slot and extending through the respec-
tive blocks, and nuts for engaging the

threads of the last named bolts and coacting 10
therewith for securing the knife to said
head.

Signed at Seattle, Washington, this 14th
day of March, 1922.

JOSEPH HIMES.

Witnesses:

PIERRE BARNES,
MARGARET G. SUPPLE.