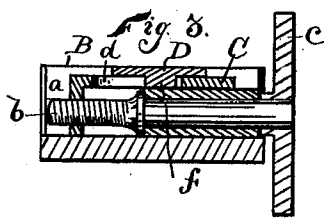
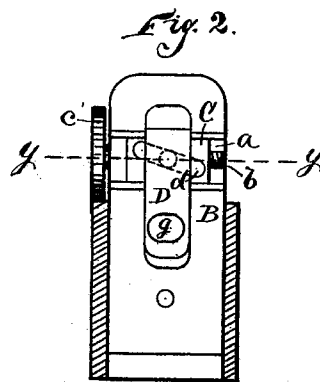
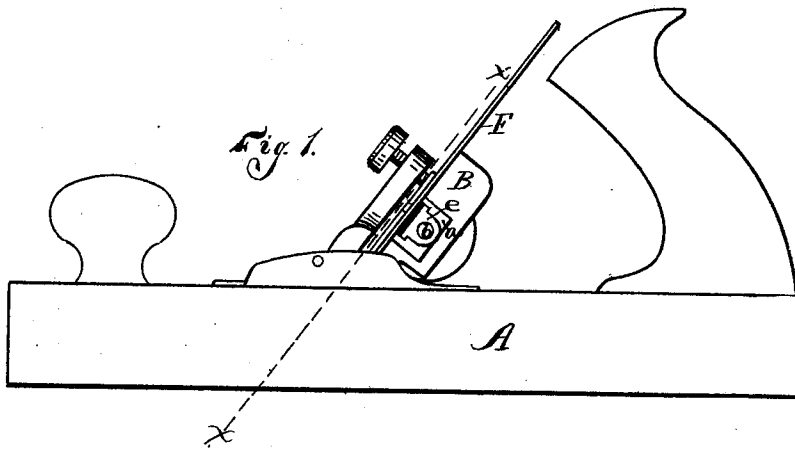


H. M. CLARK.
BENCH-PLANES.

No. 195,481.

Patented Sept. 25, 1877.



Witnesses,
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Inventor.
Henry M. Clark,
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UNITED STATES PATENT OFFICE.

HENRY M. CLARK, OF NEW BRITAIN, CONNECTICUT.

IMPROVEMENT IN BENCH-PLANES.

Specification forming part of Letters Patent No. 195,481, dated September 25, 1877; application filed August 6, 1877.

To all whom it may concern:

Be it known that I, HENRY M. CLARK, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Devices for Adjusting Plane-Irons, of which the following is a specification:

My invention consists in the employment of a transverse slide provided with an inclined slot and operating screw, and also in the peculiar construction of the parts, as hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of a device for adjusting plane-irons which embodies my invention. Fig. 2 is a sectional view of the same on line *x x* of Fig. 1, with cap and plane-iron removed, the same being viewed from a point at right angles to the face of the frog; and Fig. 3 is a transverse section of the same on line *y y* of Fig. 2.

The stock *A* may be any of the ordinary kinds, and the frog *B* can be secured thereto in any proper manner. Transversely to the frog *B* is a recess or depression, *a*, which is made shallow on the right-hand side of the frog and deep on the left-hand side of the frog. The body of a screw, *b*, passes through the solid metal of the frog just under the shallow portion of the depression *a*, and the screw proper extends into the deeper portion of said depression.

The outer end of the screw *b* is provided with a suitable head or handle, *c*, for operating said screw, and it is prevented from longitudinal movement by shoulders at each end of its bearing in the frog.

Fitted to move in the depression *a* is a slide, *C*, having an inclined slot, *d*, and threaded lug *e*, through which lug the screw *b* passes. By turning the screw the slide may be moved endwise either to the right or left, as may be desired.

Another slide, *D*, is fitted to slide longitudinally in a recess in the frog *B*, and the upper end of this longitudinal slide is provided on its under side with a projecting pin

or stud, *f*, Fig. 3, also indicated by broken lines in Fig. 2, which pin or stud engages the side walls of the inclined slot in the slide *C*. In the lower end of the longitudinal slide is an orifice to receive the head of the ordinary cap-screw, which orifice, *g*, Fig. 2, may be elongated somewhat from right to left, so that the plane-irons *F* may be moved sidewise a little to bring the end of the cutting-bit square with the face of the stock.

When the transverse slide is moved endwise, by means of the operating screw, the side walls of the inclined slot *d* engage the pin or stud *f*, and move the longitudinal slide and plane-irons.

If the slide *C* is moved to the right, the longitudinal slide *D* is forced downward, carrying the plane-irons with it, and, if moved to the left, the plane-irons are drawn upward into the stock with said slide.

If desired, instead of connecting the longitudinal slide to the plane-irons through means of the ordinary cap-screw, a stud may be attached directly to the cutting-iron, and received in the orifice at the lower end of the longitudinal slide.

My adjustment is very cheaply constructed, and adjusts the plane-iron with ease and smoothness.

I claim as my invention—

1. In a device for adjusting plane-irons, the transverse slide, provided with inclined slot and operating mechanism for moving said slide transversely to the plane-iron, substantially as described, and for the purpose specified.

2. In a device for adjusting plane-irons, the screw *b*, set transversely to the frog, and secured from longitudinal movement, in combination with the incline slotted slide, provided with threaded lug *e*, which receives the adjusting-screw, substantially as described, and for the purpose specified.

HENRY M. CLARK.

Witnesses:

T. A. CONKLIN,
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