

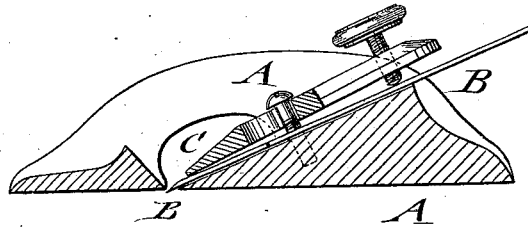
J. E. NORWOOD.

Bench-Plane.

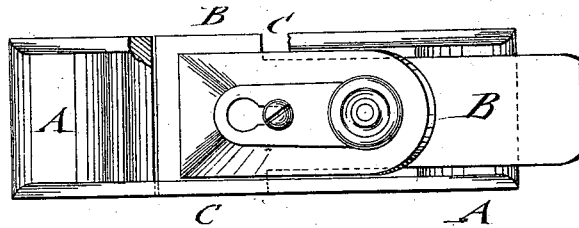
No. 161,701.

Patented April 6, 1875.

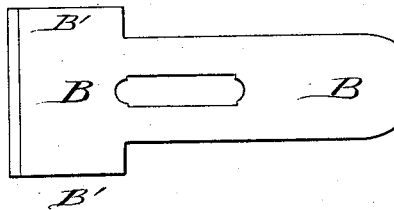
*Fig: 1.*



*Fig: 2.*



*Fig: 3.*



WITNESSES:

*Chas. Nida*  
*A. J. Perry*

INVENTOR:

*J. E. Norwood*  
BY *Munnell*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JOHN E. NORWOOD, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN BENCH-PLANES.

Specification forming part of Letters Patent No. **161,701**, dated April 6, 1875; application filed February 13, 1875.

*To all whom it may concern:*

Be it known that I, JOHN E. NORWOOD, of Boston, Suffolk county, Massachusetts, have invented a new and Improved Bench-Plane, of which the following is a specification:

Figure 1 represents a vertical longitudinal section of my improved plane. Fig. 2 is a top view of the same, and Fig. 3 a detail top view of the cutting-iron.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

A represents a block plane-stock, of the usual construction, and B the cutting-iron used therein. The stock A is provided with side openings C, through which the cutting-iron B, which is made with side extensions B', as shown in Fig. 3, is permitted to pass out flush with the outside of the stock. The cutting-iron B is rigidly fastened and adjusted in the customary manner to the stock, and allows of the use of the plane for cutting rabbets, or

as a block plane, for truing up miter-joints or cutting across the ends of the wood.

The cutting-iron is set, as usual in these kinds of planes, at an acute angle to the bottom or face of the stock, and with the bevel at the upper side instead of at the under side, as in most planes.

The combined plane performs equally well the work of a block-plane and of a rabbet-plane, and is, therefore, of great advantage to wood-workers as a compact and effective implement.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of a stock, having guide-edges on each side, with openings C C and a plane-iron, B, having extensions B', as and for the purpose described.

JOHN E. NORWOOD.

Witnesses:

ORAMEL B. SCOFIELD,  
JAMES H. BONKS.