

P. C. McGRATH.
 Knife for Cutter-Head.

No. 205,564.

Patented July 2, 1878.

Fig. 1.

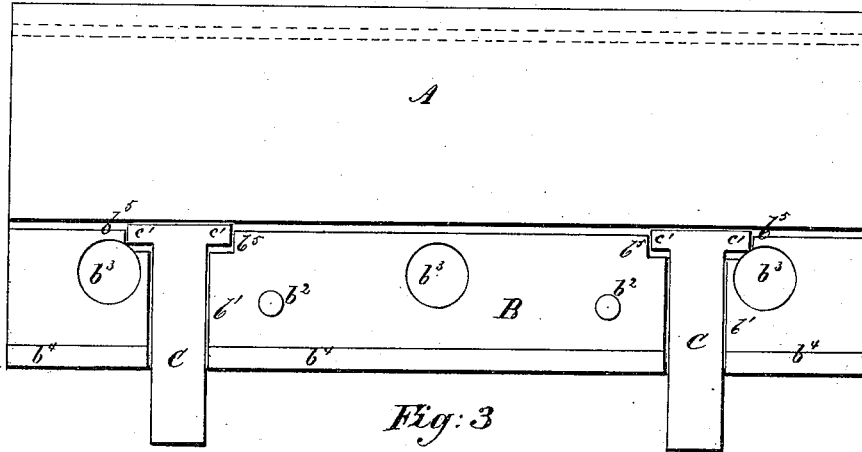


Fig. 2.

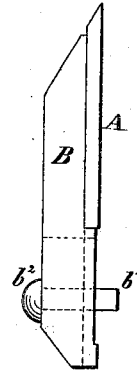


Fig. 3.

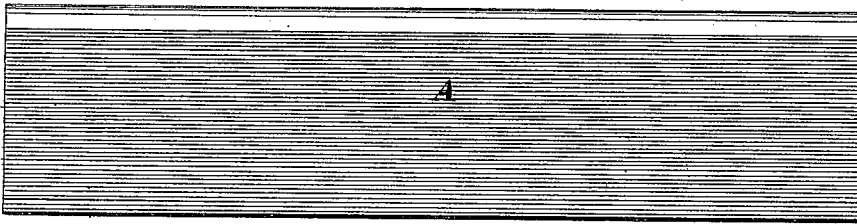


Fig. 4.

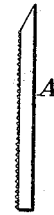
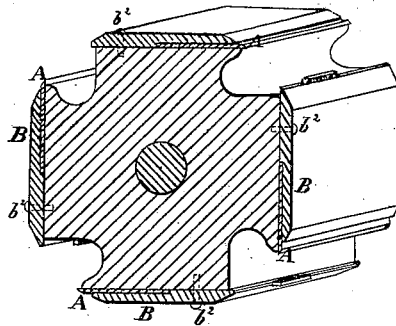


Fig. 5.



WITNESSES:

Achilles Schehl
W. Spadwick

INVENTOR:

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UNITED STATES PATENT OFFICE.

PATRICK C. McGRATH, OF PLATTSBURG, NEW YORK.

IMPROVEMENT IN KNIVES FOR CUTTER-HEADS.

Specification forming part of Letters Patent No. **205,564**, dated July 2, 1878; application filed May 25, 1878.

To all whom it may concern:

Be it known that I, PATRICK C. McGRATH, of Plattsburg, in the county of Clinton and State of New York, have invented a new and useful Improvement in Planer-Knives, of which the following is a specification:

Figure 1 is a detail view of the inner side of one of my improved holding-plates and knives. Fig. 2 is an end view of the same. Fig. 3 is a detail view of the inner side of one of the knives. Fig. 4 is an end view of the same. Fig. 5 is a detail view, representing a set of knives and holding-plates attached to a cutter-head.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved manner of making planer-knives and of securing them in place upon the cutter-heads, which shall be simple in construction, inexpensive in manufacture, will enable the knives to be held firmly and securely in place, and readily set in or out, as desired, and which at the same time will enable the knives, when worn or broken, to be replaced at a comparatively small expense.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

A represents one of my improved planer-knives, which is made of steel, and thin, so that it can be properly and evenly tempered, and the inner side or back of which is roughened or toothed to prevent it from slipping upon the holder-plate B. The holder-plate B is rabbeted upon its inner side from its forward edge to form a seat for the knife A, the rear edge of the said knife A resting against the shoulder of the said plate.

The thicker part of the holding-plate B has cross-grooves b^1 formed in it, as shown in Fig. 1, so that a punch or other suitable tool may be inserted in the said grooves when the holding-plate and its knife have been attached to the cutter-head, to enable the knife to be set out, when desired.

The plate B is also provided with screws or pins b^2 , to enter holes in the cutter-head, and thus keep the said holding-plate in place.

The plate B is also provided with holes b^3 , to receive the bolts by which it is secured to the cutter-head.

Upon the rear part of the inner side of the holding-plate B is formed a rib, b^4 , to rest upon the cutter-head, so that when the holding-plate and knife are secured in place by tightening the bolts the edge of the knife may be pressed against the cutter-head, so as to prevent any chips from passing in between it and the said cutter-head when the machine is in use.

If desired, narrow steel plates C may be fitted into cross-grooves b^1 of the holder-plate B, with their forward ends resting against the rear edge of the knife A, so that the said knife can be conveniently set forward by hammering upon the outer ends of the said plates C. In this case, projections c' should be formed upon the side edges of the plates C, to fit into recesses b^5 , formed in the holder-plate B, to prevent the said plates C from flying out when the cutter-head is running.

By this construction the knives A, being made thin, can be made wholly of steel, and can be properly tempered, so that they do better work than planer-knives constructed in the ordinary way.

The knives thus constructed can be readily adjusted as they wear, and can be replaced by new knives, when required, at a comparatively small expense.

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

1. The holder B, screw-clamped at the rear to the cutter-head, and rabbeted in front to receive the planer-knife, as shown and described.
2. The knife-holder B, having rabbet for knife and grooves b^1 in its thickened part, to allow the use of a punch, as set forth.
3. The knife-holder B, provided with the rib b^4 upon the rear part of the inner side thereof, as and for the purpose specified.

PATRICK C. McGRATH.

Witnesses:

H. S. RANSOM,
W. S. RANSOM.