(No Model.)

F. N. GARDNER.

CUTTER HOLDER FOR LATHES.

No. 256,668. Patented Apr. 18, 1882.

Fig. 1.

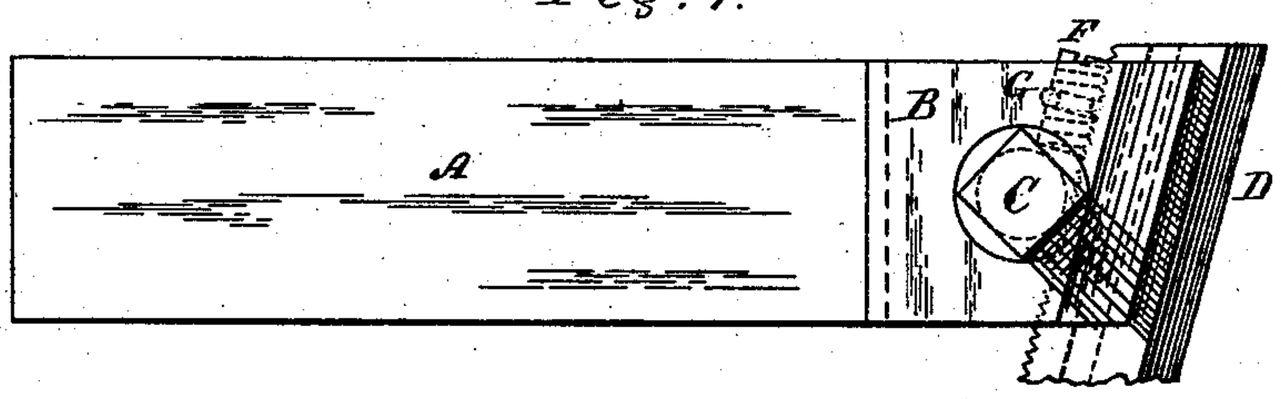
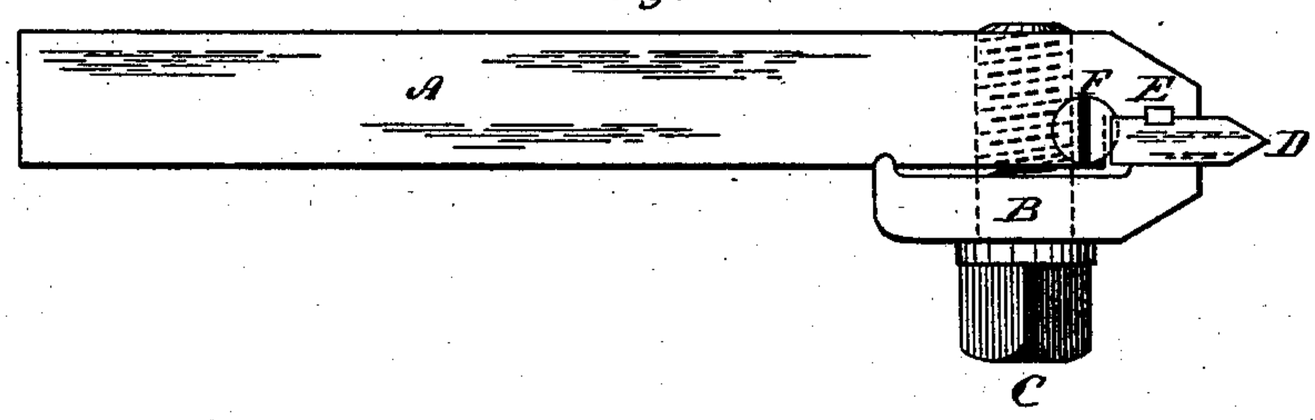


Fig. 2.



Witnesses.

Edwin F. Dimock

Chas. L. Burdett

Inventor.

Frederick N. Gardner

by Theo. G. Ellis, attorney.

UNITED STATES PATENT OFFICE.

FREDERICK N. GARDNER, OF HARTFORD, CONNECTICUT, ASSIGNOR TO HIMSELF AND JAMES E. WOODBRIDGE, OF SAME PLACE.

CUTTER-HOLDER FOR LATHES.

SPECIFICATION forming part of Letters Patent No. 256,668, dated April 18, 1882.

Application filed January 28, 1882. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK N. GARDNER, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Threading-Tools and Threading-Tool Holders; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My improvement relates to tools and tool-holders, and more especially to threading-tools and holders adapted to cutting threads on screws where it is required to have a very exact adjustment of the position of the point of the tool.

The object of my invention is to provide an adjustment between the tool and holder by which the tool can be moved and adjusted with great exactness.

In the accompanying drawings, illustrating my invention, Figure 1 shows a side view of my improved tool and holder. Fig. 2 shows a top view of the same.

A is the bar of the tool-holder, which is commonly held in the tool-rest of the machine in which the tool is used.

B is a clamp, the rear end of which is formed into an edge, which bears in a groove in the bar A, and the forward end of which bears against the tool to hold it firmly against the bar A.

C is a set-screw passing through the clamp B and turning in a thread in the bar A. This screw binds the two parts A and B together to hold the tool.

D is the tool. This is commonly set in an inclined position, as shown, and is firmly held between the parts A and B. The part A has a recess or socket for the tool, upon one side of which is the guide E, fitting into a recess in the tool and holding it at the exact proper inclination. In my improved device the tool, instead of being smooth and plain upon its rear edge, is cut into teeth, forming a rack, in which the screw F works.

F is the adjusting-screw, fitting into a socket in the bar A, in which it can turn freely, with its lower end resting in the bottom of the socket to receive the thrust of the tool and prevent its moving. The teeth of the rack upon the edge of the tool extend into the socket, so as to engage the thread of the screw and be held by it.

In order to raise the tool as its top is ground off in sharpening, the screw F is turned inward in the ordinary manner, and in order to lower the tool the screw would be turned out and the tool driven downward.

By means of my improvement the position of the tool can be fixed in the exact position desired.

If it is desired to hold the screw in its socket so that it will operate in both directions upon the tool, the pin G is inserted through the tool-holder and rests in a groove in the screw, so that it can turn, but cannot be withdrawn without removing the pin.

What I claim as my invention is—

The adjusting-screw F, in combination with the tool-holder A B C and the tool D, provided with a rack, substantially as described.

FREDERICK N. GARDNER.

Witnesses:

THEO. G. ELLIS,

WILMOT HORTON.